JASPERS Evaluation

First Intermediate Report June 2012

Prepared by: ..... Checked by: .....

Caroline Kelleher & Evelyn Judge
Consultant Principal

John Finnegan
Director

Approved by: .....

Bernard Feeney
Director

JASPERS Evaluation

Rev No	Comments	Checked by	Approved by	Date
	For Issue	JF	BF	12.06.12

Ground Floor, Grand Canal House, Upper Grand Canal Street, Dublin 4, Republic of Ireland
Telephone: +353 (0) 1 238 3100 Website: http://www.aecom.com

Job No Reference Date Created June 2012

Table of Contents

Executive Summary

Executive Summary

1: Introduction and Scope of Work

AECOM has been engaged by the DG for Regional Policy of the European Commission to carry out an evaluation of the JASPERS initiative from its inception until the end of June 2011. JASPERS was established in late 2005 as a technical assistance facility to increase the capacity of beneficiary countries to make the best use of EU funding. Improvement of the quantity and quality of projects submitted for funding approval was anticipated to increase the benefits of these projects to the new Member States and the European Union as a whole. JASPERS support is extended to projects in a number of sectors including ports, airports, railways, roads, urban infrastructure and services, energy and solid waste, water supply and wastewater, and the knowledge economy.

This document is the first intermediate report on the evaluation. It presents the results of Tasks 1 and 2 of the evaluation, as defined in the DG for Regional Policy's invitation to tender. Task 1 consisted of the construction of a series of timelines for the assignments carried out by JASPERS and a statistical analysis of these timelines. Task 2 consisted of an investigation of the links between specific areas of JASPERS advice and the DG for Regional Policy's project assessment process.

JASPERS assignments relate to major projects, non-major projects and horizontal assignments. Major projects are defined as those with a total cost of at least €50m for transport projects and €25m for environment and other projects. Since 2009, all projects with a total cost of at least €50m are major projects. Non-major projects are projects below €50m in value. Horizontal assignments are not related to a specific project. The JASPERS technical assistance offered is in the early stages of the project development.

Four different types of Timeline were developed for Task 1, namely:

- Timelines for the major projects which received JASPERS support and which were submitted to the DG for Regional Policy for approval;
- Timelines for the non-major projects which received JASPERS support and where the Member State then decided the future of the project;
- Timelines for the "horizontal" assignments which received JASPERS support; and,
- Timelines for the major projects that have been submitted to the DG for Regional Policy for approval without any assistance from JASPERS.

The construction of these timelines involved:

- Acquisition of necessary timeline data;
- Addressing any gaps in the data acquired;
- Defining precise templates for the timelines; and,
- Data handling to produce the timelines.

The completed timelines were then analysed to produce insights into the work done by JASPERS and the DG for Regional Policys decision making process, and to isolate evidence of the impact that JASPERS has had on the quality of project development carried out by Member States.

The approach adopted for Task 2, examining the relationship between the scale and scope of JASPERS advice and the DG for Regional Policy's project assessment for evidence of the impact of JASPERS, was based on:

- Capturing data from Completion Notes and Interruption Letters on the topics covered by JASPERS advice and the topics giving rise to delays in reaching Decisions on applications for funding;

- Analysing the data on the contents of Completion Notes and Interruption Letters for evidence of the impact of JASPERS;
- Examining the correlation between topics covered in Completion Reports and raised in Interruption Letters for evidence of the impact of JASPERS; and,
- A more in depth, qualitative, analysis of individual projects identified by these comparisons to investigate the effect that JASPERS is having on the quality of project development by Member States and the ease of assessment by the DG for Regional Policy.

2: Profile of Projects & Horizontal Assignments

As an introductory step to the analysis of Timeline durations, a profiling of the projects and assignments in each Timeline dataset was carried out. Since JASPERS' inception in 2005, the 12 new Member States have availed of the support made available through the JASPERS technical assistance facility. JASPERS support has been provided through the JASPERS head office in Luxembourg and three regional offices in Vienna, Bucharest and Warsaw. The Vienna offices deals with projects and assignments from the Czech Republic, Slovenia, Slovakia, Hungary and Malta. The Bucharest offic provide services to Bulgaria and Romania while the Warsaw office provides services to Poland, Estonia, Latvia and Lithuania. The Luxembourg office provides overall co ordination and JASPERS services to Cyprus. Over the course of the period 2005 to June 2011, the total value of JASPERS assisted projects was €65.9bn; made up of €42.8bn in major projects and €23.1bn in non major projects.

2.1 Major Projects in Receipt of JASPERS Assistance

A total of 231 major JASPERS-assisted projects were submitted to the DG for Regional Policy for funding approval over the period covered by the evaluation. Of these, 168 were in receipt of a DG for Regional Policy funding Decision. The remaining 63 projects were either interrupted; being actively assessed by the DG for Regional Policy; or had not been formally submitted to the DG for Regional Policy.

Poland and Romania each accounted for one-quarter of all major JASPERS-assisted projects that have been submitted to the DG for Regional Policy for funding, followed by the Czech Republic and Hungary which accounted for an additional 14 per cent respectively.

'Water and Wastewater' was the most dominant sector, accounting for one in three major JASPERS-assisted projects. The was followed by the Roads and Energy sector which accounted for 25 per cent and 18 per cent of all major JASPERS-assisted projects respectively.

The size of all major JASPERS assisted projects as measured by total project costs was €42.8bn, with an average cost of €185m. One-third of all major JASPERS-assisted projects cost between €50m and €100m; 30 per cent had costs between €100m and €200m; while one quarter (24 per cent) had project costs exceeding €200m. Over time, the average cost of major JASPERS-assisted projects has been in decline, falling from an average of €254.2m in 2007 to €133.1m in 2010.

'Road' projects present the largest major JASPERS-assisted projects with an average cost of €344m, followed by 'Urban Transport' (€276.1m) and 'Railways' (€265.1) projects. 'Solid Waste' were the smallest projects in terms of averge project cost at €61.7m.

2.2 Major Projects not in Receipt of JASPERS Assistance

There were 82 major non-JASPERS-assisted projects submitted to the DG for Regional Policy for funding approval over the period covered by the evaluation. Of these, 40 projects were in receipt of a funding Decision.

The majority of major non JASPERS assisted projects were concentrated in Poland (75.6 per cent) with an additional 12 per cent in Romania. The 'Roads' sector accounted for approximately one-quarter of the non-JASPERS-assisted major projects, with an additional 22 per cent belonged to the 'Water and Wastewater' sector.

The size of all major non JASPERS assisted projects as measured by total project costs was €8.6bn, with an average project cost of €112.3m. Approximately half of non-JASPERS-assisted major projects had costs totalling between €50m and €100m. Just 9 per cent of projects had project costs exceeding €200m. While the average size of JASPERS-assisted major projects broadly increased over 2007 – 2010 period, the average costs of non-JASPERS-assisted major projects declined over the 2008 – 2010 period. On average, the largest major non-JASPERS-assisted projects belonged to the 'Roads' sector (€189.5m), followed by the 'Railways' sector (€128.5m). The smallest projects belonged to the 'Solid Waste' sector (€48.1m).

2.3 Non-Major Projects in Receipt of JASPERS Assistance

A total of 91 non-major JASPERS-assisted projects received JASPERS assistance over the period covered by the evaluation. Romania and Poland accounted for 29 and 21 per cent of non-major JASPERS-assisted projects respectively. An additional 13 and 11 per cent were located in Bulgaria and Slovenia respectively. Across all Member States, 32 per cent of JASPERS non-major assignments were commenced in 2007, or earlier.

The 'Solid Waste' sector accounted for approximately 29 per cent of non-major JASPERS-assisted projects while 'Water and Wastewater' accounted for 22 per cent of projects. The size of all non-major JASPERS-assisted projects as measured by total project costs was €23.1bn, with an average project cost of €26m. One-quarter of all non-major JASPERS-assisted projects cost between €20m and €30m, 20 per cent had costs exceeding €40m. The largest non-major JASPERS-assisted projects were in the Water and Wastewater sector (€34.6m).

The largest proportion non-major JASPERS-assisted projects were supported through by the Bucharest office (42.9 per cent), a further 25.3 per cent were supported through the Warsaw office. The Vienna JASPERS offices supported 24.2 per cent of all non-major JASPERS-assisted projects.

2.4 JASPERS Horizontal Assignments

A total of 87 JASPERS horizontal assignments were completed by JASPERS over the period 2005 – June 2011. One-third of all horizontal assignments were Romanian, while 22 per cent were Polish. Approximately half of all JASPERS horizontal assignments in Romania commenced in 2007. Thirty-seven per cent of all horizontal assignments belonged to the 'Other' project sector category, while one in five horizontal assignments related to the 'Water and Wastewater' sector. The largest proportion of horizontal assignments were supported through the Bucharest office (42.9 per cent), followed by the Warsaw office with 37 per cent of assignments. The Vienna and Luxembourg offices each supported 10 per cent of horizontal assignments.

3: Timeline Analysis

A key objective of the evaluation of JASPERS is to establish the impact of JASPERS on the Timelines for the preparation and submission of major projects to the DG for Regional Policy for funding approval. A key result of this work was that the average effect of JASPERS assistance was a reduction of 86 days when contolling for all other variables affecting the DG for Regional Policy Decision duration.

3.1 DG for Regional Policy Decision Duration for Major Projects

DG for Regional Policy Decision durations relate to the time between the submission of a major project application to the DG for Regional Policy and the DG for Regional Policy funding Decision. An analysis of the DG for Regional Policy Decision durations for major JASPERS-assisted projects revealed an average DG for Regional Policy Decision duration of 272 days. The equivalent duration for non-JASPERS-assisted projects was found to be 386 days. The availability of JASPERS assistance appears to have reduced the the DG for Regional Policy Decision duration, on average, by 114 days.

An analysis of the DG for Regional Policy Decision durations by project size revealed shorter average Decision durations for JASPERS-assisted projects relative to the non-assisted projects, across the different size categories. Projects with costs totalling less than €100m experienced average Decision duration of 251 days; the equivalent duration for non-assisted projects was 398 days. In the case of projects with costs of between €100m and €200m,

the Decision durations for JASPERS-assisted project were also shorter, although the difference was negligible at 5 days. For projects with costs in excess of €200m, the average Decision durations for JASPERS-assisted projects, at 336 days, was significantly shorter than for non-assisted counterparts (681 days).

A similar analysis of the DG for Regional Policy Decision durations for both JASPERS-assisted and non-JASPERS-assisted projects by sector showed that across all sectors, for which there was comparison data (namely 'Roads'; Water and Wastewater'; 'Railways'; 'Urban Transport'; and 'Knowledge Economy'), the average Decision durations for JASPERS-assisted projects were shorter than for non-assisted projects. The largest variation between Decision durations was witnessed in the 'Urban Transport' sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 231 days. The shortest variation was experienced in the 'Water and Wastewater' sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 25 days.

There were five Member States which submitted both JASPERS-assisted and non-JASPERS-assisted projects to the DG for Regional Policy for funding approval, namely Romania, Poland, Czech Republic, Estonia and Slovenia. Across the five Member States, the average the DG for Regional Policy Decision durations were shorter for JASPERS-assisted projects in Poland, the Czech Republic and Slovenia. In both Romania and Estonia the the DG for Regional Policy Decision durations were actually shorter for projects that were not in receipt of JASPERS assistance. In the case of Romania, the non-JASPERS-assisted projects belonged to the 'Solid Waste' (2 projects) and 'Water and Wastewater' (7 projects) sectors. In Estonia the non-JASPERS-assisted projects belonged to the 'Solid Waste' (1 project); 'Water and Wastewater' (2 projects); and 'Railways' (1 project) sectors. In the case of both Romania and Estonia, the number of non-assisted projects was very small. Average Timeline durations based on small numbers of projects may not reflect the reality of the underlying Timeline durations.

The finding that the DG for Regional Policy durations were shorter for JASPERS assisted projects than for non-JASPERS assisted projects held true across the range of project sizes, sectors and Member States. Multivariate regression analysis was conducted to ensure a like for like comparison, and this confirmed that JASPERS assistance reduced the DG for Regional Policy Decision durations. This analysis indicated that the average effect of JASPERS assistance, contolling for all other variables affecting the DG for Regional Policy Decision duration, was a reduction of 86 days.

3.2 JASPERS Duration for Major Projects

The JASPERS duration relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance for a project/assignment. Across the three types of JASPERS assignment, namely, major, non-major and horizontal assignments, the average JASPERS durations were 489 days; 594 days; and 388 days respectively. Non-major projects thus experienced longer average JASPERS durations compared to major projects.

Half of all major JASPERS-assisted projects were located in either Romania or Poland. JASPERS durations in Romania exceeded the average by 118 days; by contrast JASPERS durations in Poland, at 476 days, were close to the average. Larger major projects (with project costs in excess of €150m) experienced longer than average JASPERS durations. Across the sectors in which there were significant numbers of projects (in excess of ten), the 'Urban Transport' sector experienced the longest JASPERS durations, 99 days above the average. The shortest durations were experienced in the 'Water and Wastewater' sector, where average JASPERS durations were 47 days below the average.

Almost all major JASPERS-assisted projects were supported through the Bucharest, Vienna, and Warsaw JASPERS offices, each accounting for 38, 35 and 26 per cent of projects respectively. The Bucharest office experienced the longest JASPERS durations, which were 111 days above the average. In both the Warsaw and Vienna offices the JASPERS durations were below average. As well as experiencing the longest JASPERS durations, the Bucharest office experienced the shortest the DG for Regional Policy Decision durations (94 days below the average). The Warsaw and Vienna offices both experienced above average the DG for Regional Policy Decision durations.

3.3 JASPERS Duration for non-Major Projects

Trends in the average JASPERS durations for non-major JASPERS-assisted projects were similar in many respects to those of their major JASPERS-assisted project counterparts. Half of all non-major JASPERS-assisted projects were also located in either Romania or Poland. JASPERS durations for Romanian non-major projects were above average, by 333 days. In Poland, the average JASPERS duration for non-major projects was 542 days, 52 days below the average. The Bucharest JASPERS office (which supported 40 per cent of non-major projects for which duration data was available) experienced the longest JASPERS durations, 149 days above average. The Vienna JASPERS office which supported one-quarter of all non-major projects for which duration data was available, experienced JASPERS durations 231 days below the average. 'Railway' projects experienced the longest non-major JASPERS durations, 625 days above the average.

3.4 JASPERS Duration for Horizontal Projects

Romania and Poland accounted for 55 per cent of all JASPERS horizontal assignments. In both Member States however, the average JASPERS durations were below average. The 'Energy', 'Solid Waste' and Water and Wastewater' sectors each had in excess of ten horizontal assignments. All three of these sectors experienced below average JASPERS durations. The two JASPERS offices that together supported 80 per cent of all JASPERS horizontal assignments (namely Bucharest and Warsaw) each experienced below average JASPERS durations.

4: Links Between JASPERS Advice and the DG for Regional Policy Project Assessment

4.1 Scale and Scope of JASPERS Assistance

The scale of JASPERS support to projects was extensive. Overall, the average number of topics per project was 4.8, while the average number of meetings/visits was 5.3. The Czech Republic was notable for availing of relatively lower levels of JASPERS assistance, with an average of 2.9 topics per project and 2.7 meetings/site visits per project.

There is a disparity in the scale of JASPERS support required by different sectors. Solid Waste projects had relatively few topics assisted on by JASPERS, averaging 3.4 compared to the Knowledge Economy or Road sectors both of which sought advice on an average of 5.4 topics. The Knowledge Economy also appears to have required a greater level of JASPERS assistance in terms of the number of meetings attended by JASPERS, which averaged 8.1.

Over time it appears that there has been little change in the scale of JASPERS effort, however it is evident that larger projects require assistance in relation to a higher number of topics and the number of meetings attended by JASPERS is larger.

With regard to the scope of JASPERS Supports, Cost Benefit Analysis was the topic on which JASPERS support was most frequently sought occurring in 74.4 per cent of all projects. This was followed by Funding and Financing Issues at 35.1 per cent of projects, Project Concept and Programming at 30.4 per cent, and Environmental Issues at 29.2 per cent.

The topics for which JASPERS Support was least required were Competition and State Aids at 8.3 per cent of projects, Project Cost Estimation at 9.5 per cent and Procurement at 10.1 per cent.

The Czech Republic required support for a low proportion of projects across all topics. With regard to the topics on which support was most frequently sought, advice on Cost Benefit Analysis was sought by Romania in respect of 92.6 per cent of all that Member State's projects. Poland availed of JASPERS support on Funding and Financing issues for 65.6 per cent of their projects. Hungary and Poland were above average in their use of support on Environmental Issues.

With regard to sectors, the Knowledge Economy had high levels of support in relation to Project Concept and Programming (57.1 per cent) and Competition and State Aids (also 57.1 per cent).. Roads had high levels of support

generally, but particularly in relation to Cost Benefit Analysis (85.3 per cent of projects), Environmental issues (61.8 per cent) and Demand Analysis and Modelling (50.0 per cent). Rail was an intensive user of support for Cost Benefit Analysis (66.7 per cent of projects), Environmental Issues (42.9 per cent) and Project Concept and Programming (42.9 per cent). Solid Waste projects were also intensive users of advice on Cost Benefit Analysis. The Water and Wastewater sector was a generally high user of advice, but particularly on Cost Benefit (87.9 per cent) and Funding and Financing Issues (39.7 per cent).

As might be expected, all of the JASPERS offices provided a high level of advice on Cost Benefit Issues. The Bucharest office was particularly involved in providing advice on Project Implementation and Structures (39.7 per cent of projects) and Funding and Financing Issues (38.1 per cent of projects). For the Vienna office, the major advisory topics were Environmental Issues (28.8 per cent of projects) and Project Concept and Programming (27.1 per cent). With regard to the Warsaw office, the major involvement was with Funding and Financing Issues (35.1 per cent) and Project Concept and Programming (30.4 per cent).

There was a tendency for the relative support on some topics to decline over time. Distinguishing between the the DG for Regional Policy Decision periods 2006-2009 and 2010-2012, the latter period saw a decline in support relating to Project Design, Cost Benefit Analysis, Funding and Financing Issues, Procurement and Project Implementation and Structures Issues. In contrast, there was an increase in support in relation to Project Concept and Programming, Demand Analysis and Modelling, Risk and Sensitivity Analysis, and Competition and State Aids.

Larger projects of greater than €150m tended to have greater need for support across a range of topics than smaller projects.

4.2 Analysis of the DG for Regional Policy Interruptions

An analysis of the DG for Regional Policy interruptions was carried out for the 112 major JASPERS assisted projects for which substantive interruptions existed. The number of Interruptions per project averaged 3.4 overall and varied significantly across Member States and JASPERS Office. Polish projects had relatively low levels of interruption with an average of 2.8 topics raised by the DG for Regional Policy. This is in contrast to Hungarian projects where the number of interruptions was substantially higher at 4.4 topics on average. These trends are also reflected in the projects under the remit of the Vienna and Warsaw offices which would have accounted for the majority of Polish and Hungarian projects respectively.

Disparities in the scale of the DG for Regional Policy work is also seen across sectors. The Knowledge Economy has the lowest number of interruption topics with an average of 2.4, compared to Solid Waste which had 4.8 interruption topics on average. It may be noted that Solid Waste had relatively few topics assisted on by JASPERS while the Knowledge Economy sought advice on a substantial number of topics. The average number of topics raised by the DG for Regional Policy increased with project size, but declined over time.

Environmental Issues was the topic raised most frequently by the DG for Regional Policy (for 56.3 per cent of projects interrupted, this issue was raised), followed by Funding and Financing Issues (51.8 per cent), Cost Benefit Analysis (43.8 per cent), and Project Design 41.1 per cent. The topics that were raised least frequently in Interruption letters were Competition and State Aids (5.4 per cent of projects), Procurement (10.7 per cent) and Demand Analysis and Modelling (17.0 per cent).

Of the four Member States for which conclusions can be drawn, the Czech Republic exhibited more substantial variation in the proportion of projects interrupted. It had a relatively very low proportion interrupted in respect of Project Design (20.1 per cent versus an average of 41.1. per cent), Risk and Sensitivity Analysis (5 per cent versus an average of 29.5 per cent), and Procurement (5.0 per cent versus 10.7 per cent) and a high proportion for Project Cost Estimation (35.0 per cent versus 17.9 per cent) and Competition and State Aids (20.0 per cent versus 5.4 per cent). Romania had no projects recorded as interrupted on Demand Analysis and Modelling while Hungary was well above average (26.1 per cent versus an average of 17.0 per cent). Hungary was well above the average on Cost Benefit Issues (60.9 per cent versus an average of 43.8 per cent). Environmental Issues was the topic which caused

most interruptions overall (56.3 per cent of projects oveall). However, Poland had relatively few interruptions on this topic (27.3 per cent of projects).

With regard to topics, the Knowledge Economy projects generally were subject to fewer interruptions across the full range of topics, reflecting the low level of interruption topics for this sector generally. With regard to Cost Benefit Analysis, Rail projects had a relatively higher level of interruptions than the average on this topic (58.8 per cent of projects versus 43.8 per cent of projects on average). Environmental Issues was the topic which formed the basis for more interruptions than any other over the evaluation period (56.3 per cent). Within this context, the proportion of Road projects interrupted was very high (80.8 per cent). Rail projects were below average on this topic (29.4 per cent).

The Bucharest Office had a low level of interruptions on Project Concept and Programming (20.8 per cent compared to 31.3 per cent) and Competition and State Aids (no interruptions versus an average of 5.4 per cent of projects) and Procurement (no interruptions versus an average of 10.7 per cent), but an above average on Funding and Financing Issues (62.5 per cent versus 51.8 per cent) and Project Implementation and Structures (66.7 per cent versus 31.3 per cent). The Warsaw Office had particularly low level of interruptions on Project Cost Estimation (9.7 per cent versus 17.9 per cent), Environmental Issues (32.3 per cent versus 56.3 per cent), and Funding and Financing (41.9 per cent versus 51.8 per cent).

While Environmental Issues accounted for the largest proportion of interruptions (56.3%) over the whole evaluation period, there has been a marked decline in the proportion of projects interrupted on this basis. In the 2006-2009 period approximately 73.0 per cent of projects were subject to interruptions on Environmental Issues, decling to 48.0 per cent of projects in the the 2010-2012 period. Other topics that declined significantly over the period were Funding and Financing Issues (from 59.5 per cent to 48.0 per cent) and Project Implementation and Structures (from 40.5 per cent to 26.7 per cent). As there was a decline in the average number of topics on which projects were interrupted over the two periods, from 4.1 topics to 3.7, the proportion of projects interrupted on all topics declined with the exception of Competition and State Aids.

Larger projects greater than €150m were more likely than small projects to have been interrupted particularly in relation to Environmental Issues (63.2 per cent of projects versus 52.7 per cent), Risk and Sensitivity Analysis (34.2 per cent versus 27.0 per cent), Funding and Financing Issues (57.9 per cent versus 48.6 per cent), and Project Implementation and Structures (39.5 per cent versus 27.0 per cent). Smaller projects less than €150m were more likely to have availed of support than large projects in relation to Project Concept and Programming (33.8 per cent versus 26.3 per cent), Project Design (41.9 per cent versus 39.5 per cent), Demand Analysis and Modelling (17.6 per cent versus 15.8 per cent), Cost Benefit Analysis (47.3 per cent versus 36.8 per cent), and Competition and State Aids (6.8 per cent versus 2.6 per cent).

4.3 Comparison of Topics Covered by JASPERS and Topics Revised by the DG for Regional Policy

The topics covered by JASPERS and topics subsequently raised by the DG for Regional Policy were analysed. This analysis was based on 146 projects for which comparable data was available; in terms JASPERS supported topics and the DG for Regional Policy interruptions where they occurred. Given that this analysis is carried out on 146 projects, the proportions idenifyied are not directly comparable to the proportion outlined in Section 4.1 and 4.2.

A significantly higher proportion of projects received JASPERS assistance in relation to Cost Benefit Analysis (74.7 per cent) than were interrupted on the topic (33.6 per cent). Similar trends are also evident in Demand Analysis and Modelling where approximately 26 per cent of projects availed of JASPERS assistance compared to 13 per cent of projects interrupted on the topic. Project Concept and Programming, Competition and State Aid and Procurement also shows similar trends with smaller proportions of projects interrupted on these bases than received JASPERS assistance.

In contrast, significantly more projects were interrupted on Environmental Issues (43.2 per cent of projects in this wider sample) than received JASPERS assistance on the topic (30.8 per cent). The proportion of projects

interrupted by the DG for Regional Policy on Project Design (31.5 per cent) was also substantially higher than the proportions availing of JASPERS assistance (22.6 per cent) on this topic. Similar trends are evident in Funding and Financial Issues, Risk and Sensitivity Analysis and Project Implementation and Structures.

There are a considerable number of instances in which JASPERS provides advice on a topic, but that topic is nevertheless subject of an Interruption. Examination of 20 projects that fell into this category revealed that there are a number of reasons why this had occurred, including failure of the Member State to heed JASPERS' advice. However, in more than half the cases reviewed, it is apparent that there was a conflict between the JASPERS advice and the views of the DG for Regional Policy. There is no clear trend as to whether this conflict persisted over time, however more details analysis of these issues will be carried out in Tasks 3 and 4.

The information gathered on each project was used to analyse the effect that JASPERS assistance on a particular aspect of project development had on the probability of that aspect of a project giving rise to an Interruption Letter from the DG for Regional Policy. For each topic a "JASPERS success rate" was calculated. This was the proportion of projects where JASPERS gave assistance on a topic, where that topic was not subsequently the subject of an Interruption Letter from the DG for Regional Policy. For comparison purposes a "Member State success rate" for each topic was also calculated. This was the proportion of projects where Memebr States dealt with the topics without JASPERS assistance, where the project was examined by the DG for Regional Policy without an interruption on the topic in question.

For all topics, except Project Design, the JASPERS success rate was comparable to, or even better than,the Member State success rate. As JASPERS assistance will only be sought where a Member State identifies potential difficulties with an aspect of a project, this is significant evidence of a postivie impact from JASPERS assistance in the development of a project. JASPERS assistance with a difficult topic leads to that topic being no more likely to lead to a the DG for Regional Policy interruption than would be the case in a project where the topic did not appear difficult to a Member State. JASPERS' relative lack of impact in the area of Project Design may reflect that fact that during the valuation period JASPERS was often involved in projects at a stage when design work was already largely completed.

Section A: Introduction

Section A: Introduction

AECOM has been engaged by the DG for Regional Policy of the European Commission to carry out an evaluation of the JASPERS initiative from its inception until the end of June 2011. A kick-off meeting for this evaluation took place in Brussels on 6th January, 2012. On 16th March 2012 an Inception Report for this evaluation was competed and delivered to the DG for Regional Policy. The Inception Report set out the detailed methodology that AECOM has adopted for the evaluation.

This document is the first intermediate report on the evaluation. It presents the results of Tasks 1 and 2 of the evaluation, as defined in the DG for Regional Policy's invitation to tender. Task 1 consisted of the construction of a series of timelines for the assignments carried out by JASPERS and a statistical analysis of these timelines. Task 2 consisted of an investigation of the links between specific areas of JASPERS advice and the DG for Regional Policy's project assessment process. These tasks are described in more detail below.

This Section of the Report first sets out a brief summary of the context in which this evaluation is taking place. It goes on to:

- Describe the objectives of this evaluation and the specific Tasks that AECOM is to carry out;
- Outline the typical stages in the development and appraisal of an investment project, and hence the range of topics where JASPERS can assist a Member State in making applications to the DG for Regional Policy;
- Summarise the processes carried out by JASPERS as it provides support to beneficiary Member States and the processes carried out by the DG for Regional Policy as it assesses applications for funding from these Member States. These processes are the subject of Tasks 1 and 2 of this evaluation; and,
- Outline the structure of this report.

A1 Context

JASPERS was established in late 2005 as a technical assistance facility to increase the capacity of beneficiary countries to make the best use of EU funding. Improvement of the quantity and quality of projects submitted for funding approval was anticipated to increase the benefits of these projects to the new Member States and the European Union as a whole. JASPERS support is extended to projects in a number of sectors including ports, airports, railways, roads, urban infrastructure and services, energy and solid waste, water supply and wastewater, and the knowledge economy.

Projects seeking support under the European Regional and Cohesion Funds must comply with the Implementing Regulations, of which Commission Regulation (EC) No 1828/2006 is the most relevant. In particular, Annex XXI of that Regulation sets out the application form that must be completed for project grant assistance. JASPERS provides technical support to Member States in the completion of this application process. Each beneficiary Member State draws up an annual Action Plan of proposed JASPERS assignments. A Managing Authority operates in each Member State and is the first point of contact for agencies seeking JASPERS support. The technical issues covered include: reviewing cost-benefit analyses, reviewing feasibility studies, reviewing tender documents, support in preparing application forms, support in carrying out environmental impact assessments, review of project development, and the assessment of strategies or development of guidelines.

JASPERS assignments relate to major projects, non-major projects and horizontal assignments. Major projects are defined as those with a total cost of at least €50m for transport projects and €25m for environment and other projects. Since 2009, all projects with a total cost of at least €50m are major projects. Non-major projects are projects below €50m in value. Horizontal assignments are not related to a specific project. The JASPERS technical assistance offered is in the early stages of the project development.

JASPERS is a partnership between the European Commission (EC), the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), and Kreditanstalt fur Wiederaufbau (KfW) and has an annual budget in the region of €35m. By the end of 2010, JASPERS had undertaken 399 assignments, of which major projects accounted for 77%, while small projects and horizontal assignments accounted for 23%.

A2 Objectives of the Study

The Call for Tenders for this Study stated that the purpose of this evaluation is to establish the impact of JASPERS, from 2005 until the end of June 2011, on the quality and timeliness of the preparation, submission, approval and implementation of major projects in the countries which joined the European Union in 2004 and 2007. Thus, the Call for Tenders, in referring to quality and timeliness relates back to the JASPERS' objectives as set out in the original concept paper for JASPERS.

There is a further requirement to obtain evidence of improved technical capacity on the part of Members States through identification of the extent to which the nature of the advice sought has changed over time, the extent of learning on the part of Members States and mechanisms to transfer technical knowledge to project applicants and Member States. Finally, those carrying out the study are asked to discuss the future direction of the JASPERS Initiative with regard to preparation of projects for the 2014-2020 programming period, strategic and horizontal support, capacity building and project implementation support. The discussion of the future direction of JASPERS is a minor objective of this study.

In addition to setting out the overall objectives of this study the Call for Tenders specified in details the Tasks that the evaluator was to complete. These were:

- Task 1: Construction of timelines for JASPERS assignments and approval of projects by the DG for Regional Policy and statistical analysis of these timelines;
- Task 2: Examining the links between specific areas of JASPERS advice and the the DG for Regional Policy project assessment process;
- Task 3: Preparation of 30 Case Studies. Each case study is to examine the impact of JASPERS be comparing a project that received JASPERS support with a comparable project that did not receive JASPERS support;
- Task 4: Analysis of feedback from Member States and project beneficiaries. This Task is to include desk research, interviews with the DG for Regional Policy and JASPERS personnel as well as visits to key stakeholders in Member States and a series of workshops for representatives of Member States.

This first interim report sets out the results of Tasks 1 and 2.

The timelines produced in Task 1 were to be analysed to produce insights into the efficiency and effectiveness of JASPERS. Four different types of Timeline were developed for Task 1, namely:

- Timelines for the major projects which received JASPERS support and which were submitted to the DG for Regional Policy for approval;
- Timelines for the non-major projects which received JASPERS support and where the Member State then decided the future of the project;
- Timelines for the "horizontal" assignments which received JASPERS support; and,
- Timelines for the major projects that have been submitted to the DG for Regional Policy for approval without any assistance from JASPERS.

The construction of these timelines involved:

- Acquisition of necessary timeline data;
- Addressing any gaps in the data acquired;
- Defining precise templates for the timelines; and,
- Data handling to produce the timelines.

The completed timelines were then analysed to produce insights into the work done by JASPERS and the DG for Regional Policys decision making process, and to isolate evidence of the impact that JASPERS has had on the quality of project development carried out by Member States.:

One of the earliest statements of JASPERS objectives was that it should "assist the Member States to prepare projects of high quality which can be approved more quickly by the services of the Commission"[1]. JASPERS is

[1] JASPERS "Task Description" 22nd July, 2005.

certainly intended to improving the quality and timeliness of projects developed by Member States. If JASPERS achieves this objective the rate of absorption of EU Cohesion and Regional Funds will increase, and the impact of these funds will be maximised.

Task 2 is based on the insight that if JASPERS is successfully fulfilling its objectives, this should be reflected in the assessment of applications for funding by the DG for Regional Policy. Successful assistance from JASPERS in the development of projects and the preparation of applications for funding should, all other things being equal, lead to shorter decision periods and more positive decisions by the DG for Regional Policy as Member States select better projects and develop and appraise these projects to a higher standard and applications are clearer and more complete. This should lead to quicker assessments by the DG for Regional Policy and fewer interruptions during the DG for Regional Policy's assessment of applications for funding.

The approach adopted to examine the relationship between the scale and scope of JASPERS advice and the DG for Regional Policys project assessment for evidence of the impact of JASPERS was be based on:

- Looking at the correlation between the JASPERS duration for major projects on the one hand and the the DG for Regional Policy decision duration and interruption duration on the other as described in Task 1;
- Capturing data from Completion Notes and Interruption Letters on the topics covered by JASPERS advice and the topics giving rise to delays in reaching Decisions on applications for funding (using the number of topics as a proxy for the scope of JASPERS assistance);
- Analysing the data on the contents of Completion Notes and Interruption Letters for evidence of the impact of JASPERS;
- Examining the correlation between topics covered in Completion Reports and raised in Interruption Letters for evidence of the impact of JASPERS; and,
- A more in depth, qualitative, analysis of individual projects identified by these comparisons to investigate the effect that JASPERS is having on the quality of project development by Member States and the ease of assessment by the DG for Regional Policy.

A3 Stages in the Development and Appraisal of an Investment Project

In principle, all investment projects go through a process of planning and appraisal before they proceed. These processes can be quick and superficial or lengthy and elaborate.

Where public money is involved these processes must be relatively formal, and completed to defined levels of quality. In the case of infrastructure projects that are part funded by the DG for Regional Policy, Member States must complete a standardised application form. In order to complete this form the Member State must carry out and document all of the normal steps in planning and appraising a capital investment project. the DG for Regional Policy's review of the application ensures that the process of planning and appraisal has been properly completed and that the results of the appraisal indicate that the proposed investment represents a worthwhile use of public funds. If a Member State has failed to complete any part of the development and appraisal of the project in question to usual standards the DG for Regional Policy will interrupt its consideration of the application. the DG for Regional Policy interruptions can be regarded as the identification of areas where a Member State's development and appraisal of a proposed investment is deficient. Member States respond to these interruptions by completing their development and appraisal of the proposal and submitting a revised application to the DG for Regional Policy.

The analysis that a Member State must carry out to complete an application for the DG for Regional Policy funding is the same as that required for "best practice" planning and appraisal of a capital investment project. The topics and issues where a Member State might require the assistance of JASPERS are, therefore, the same as the topics and issues that arise in a typical planning and appraisal process for a capital investment. Similarly the topics and issues where the DG for Regional Policy might have concerns with respect to an application are those that arise in a typical planning and appraisal process for capital investment.

For this study, AECOM developed a standard list of the topics and issues that have to be addressed in a typical project planning and appraisal process and hence that could be the subject of JASPERS assistance to a Member State or of an Interruption Letter from the DG for Regional Policy to a Member State. Based on a review of the guidance for project planning and appraisal issued by a number of public authorities and infrastructure bodies, AECOM developed a simplified example of a "best practice" planning and appraisal process that captured all of the essential features of best practice in this area. The steps in this simplified process are as follows:

1. **Project Concept**

   The first stage in project planning an appraisal is identifying a need that an investment could fulfil. For example, a Member State could identify a need to increase the level of waste water treatment in a number of agglomerations in order to comply with the Waste Water Treatment Directive or to build a bypass around a town to decrease journey times on an important national road. This identification of needs is usually done when preparing an overall investment strategy such as an Operational Programme or a transport plan for an urban area. At this stage the objectives of the investment are defined.

2. **Project Feasibility and Preliminary Design**

   Based on available technology, and the context in which the investment will take place, the relevant authority will then identify a number of options for an investment to meet the identified need. The authority will also, on a preliminary basis, identify the key features and likely cost of each option. For example an objective to treat waste water from a number of adjacent towns could be met by a large central treatment plant and an extensive network of sewers or by a smaller treatment plant in each town and a less extensive sewer network. An objective of bypassing a town could be met with a range of road routes around the town in question.

3. First Appraisal

Each of the options identified in Step 3 is then subjected to economic and financial appraisal and a risk analysis. The economic appraisal will normally be a cost benefit analysis for a significant project. On the basis of this work a preferred option for the project will be selected for further development.

4. Detailed Design

The preferred option identified at Step 2 is designed in more detail. Detailed estimates of future use of the piece of infrastructure are prepared. For example, detailed transport modelling of the likely use of a new road is carried out.

5. Detailed Project Costing

An accurate estimate of the capital and operating cost of the project is calculated based on the detailed design and forecast of future use prepared in Step 4.

6. Second Appraisal

A detailed economic and financial appraisal and risk analysis of the preferred option can then be carried out based on the more accurate forecasts of use and cost prepared in Steps 4 and 5.

7. Statutory Processes

The proposed project will then be subject to a range of independent, legally binding, controls to ensure that it is in conformity with other polices such as environmental protection and spatial planning. For example a new, or upgraded, motorway will not be allowed to proceed until an Environmental Impact Assessment has been prepared and submitted to the relevant authority. Similarly, the authority building the road will have to obtain planning permission from the relevant local authorities responsible for spatial planning. In some cases, spending public funds will have State Aid implications and the project will have to be notified to DG COMP for State Aid approval.

8. Procurement

Once all of the previous steps have been completed the project can proceed to procurement. The procurement process will have to comply with the EU procurement Directives to ensure that the process is open, transparent and competitive and is open to the whole internal market.

9. Final Appraisal Check

When procurement is completed there will be a degree of certainty on the cost of the project. It is good practice to revisit the appraisal at this stage to ensure that the case for the project is still strong when its actual cost is known.

10. Project Implementation

For a project to deliver its potential benefits, care will have to be taken to ensure that the construction of the infrastructure is property managed and that structures are in place to manage the operation of the infrastructures once it is in place.

Examining this typical process of project planning and appraisal reveals a limited number of generic issues or topics that have to be addressed during the process. These issues or topics represent the range of areas where a Member State could seek JASPERS assistance, or where the DG for Regional Policy could identify concerns and interrupt the consideration of an application for funding. The topics identified by AECOM are set out in Table A1 below. The full list also includes assistance from JASPERS with the task of completing and presenting documentation for the DG for Regional Policy and assistance from JASPERS in answering Interruption queries.

Table A1 Potential topics for JASPERS Assistance or the DG for Regional Policy Interruptions

Project Concept and Programming
Project Design
Project Cost Estimation
Demand Analysis & Modelling
Cost Benefit Analysis
Environmental Issues
Risk & Sensitivity Analysis
Competition and State Aids
Funding and Financing Issues
Procurement
Project Implementation & Structures
Vetting of the Overall Proposal & Feasibility Study
Review/Prep of ERDF/Cohesion Fund Application Form
Assistance in Answering Interruption Queries

Source: AECOM

This set of topics has been used to analyse the assistance given by JASPERS Member States and the Interruption Letters issued by the DG for Regional Policy as it considered applications for funding.

A4 The JASPERS Process

JASPERS has been established as a resource for Member States and all of JASPERS activities are carried out at the request of Member States. Demand for JASPERS services from Member States exceeds the capacity of JASPERS. In order to ensure a fair allocation of the services of JASPERS between the beneficiary Member States the work that JASPERS carries out for each Member State is agreed on an annual basis, by negotiating an Action Plan for the services JASPERS will provide to that Member State for the year. Once the Action Plan is agreed by JASPERS and the Managing Authority of the Member State, it forms the basis of JASPERS work for the year. These Action Plans identify a number of discrete project assignments that JASPERS will carry out for the Member State in the year. These assignments fall into three groups:

- Assistance with the preparation and/or appraisal of major projects that will eventually be submitted to the DG for Regional Policy for approval;
- Assistance with the preparation and/or appraisal of non-major projects that will be supported by the Cohesion Funds without having to receive individual approval from the DG for Regional Policy;
- Assistance with “Horizontal Issues” that concern more than one project, or even more than one Member State.

The main steps in the management and recording of these project assignments are as follows:

- As soon as a project is included in an Action Plan it is allocated a unique JASPERS project assignment number and a record is created for it on the JASPERS database;
- At some point in the year substantive work will start on the project assignment. Work normally starts with a kick off meeting between JASPERS staff and Member State officials. This is on foot of a “Project Fiche”. This contains a basic description of the project assignment. This Fiche is updated throughout the work and records the progress of the project assignment;
- When JASPERS has completed its work on the assignment a formal “Completion Note” is prepared and issued to the relevant Managing Authority. This note sets out details of the project, the work done by JASPERS and the

resulting advice to the Managing Authority in relation to the project. Since 2009, Managing Authorities have been required to attach these completion notes to the related applications to the DG for Regional Policy for funding for major projects.

This process is tracked on a database of all assignments maintained by JASPERS. Figure A1 below gives an overview of this process:

Figure A1: JASPERS Process

Source: AECOM

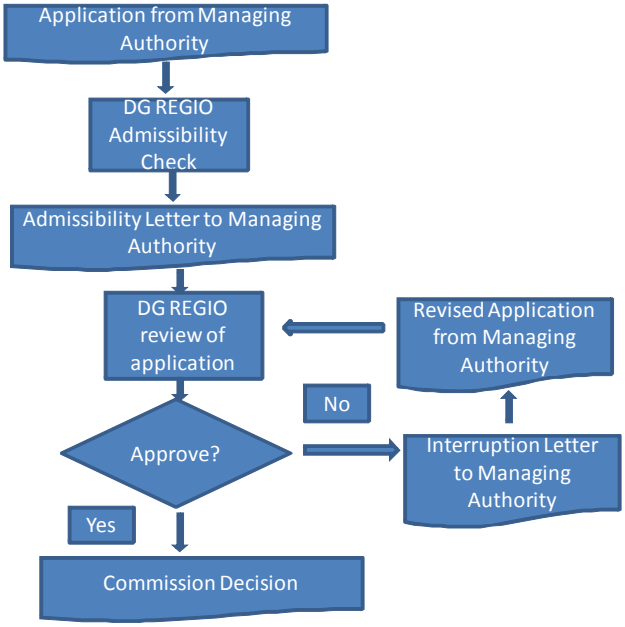
A5 The the DG for Regional Policy Application Process

Member State Managing Authorities are required to submit individual applications for funding to the DG for Regional Policy for major projects. Major projects are defined as projects with a total cost of at least €50m. the DG for Regional Policy will:

- Acknowledge receipt of the application;
- Determine whether or not the application is admissible;
- Review the form and substance of the application;
- If unable to approve the application issue an “interruption letter” to the Managing Authority. This letter sets out reasons why the DG for Regional Policy cannot yet approve the application;
- If an interruption letter is received the Managing Authority prepares and submits a revised application to the DG for Regional Policy incorporating the Managing Authority’s response to the issues raised in the interruption letter;
- Once the DG for Regional Policy is satisfied with the application a Commission Decision is taken regarding grant aid for the project.

This process is summarised in Figure A2 below:

Figure A2: the DG for Regional Policy Application Process



Source: AECOM

Each project application is tracked on a database by the DG for Regional Policy. This database is linked to copies of the documents generated during the funding application process. This generates useful information on the length time that elapses between the initial submission of an application for funding and the eventual Decision to provide funding, and where and why delays arise.

A major task in this evaluation is to analyse this data, combined with the information available from the JASPERS database, to generate insights into the relevance, effectiveness and efficiency of JASPERS.

A6 Structure of this Report

The remainder of this Inception Report is structured as follows:

- Sections B describes in detail the work done to complete Task 1 and the results obtained. Sub-Sections of Section B cover:
  - A detailed description of the Task and the methodology adopted by AECOM
  - A profile of the Major JASPERS-Assisted Projects, Major Non-JASPERS-Assisted Projects, Non-Major JASPERS Assisted Projects and Horizontal JASPERS Projects examined in this TASK;
  - Analysis of the duration of the timelines prepared for these sets of projects;
  - A “multivariate” analysis comparing the timelines for different types of project to isolate the impact of JASPERS work.
- Section C describes in detail the work done to complete Task 2 and the results obtained. Sub-Sections of Section C cover:
  - A detailed description of the Task and the methodology adopted by AECOM;
  - An analysis of the assistance delivered by JASPERS based on Completion Notes
  - An analysis of the topics causing concern for the DG for Regional Policy as it reviews applications for funding based on Interruption Letters.

- Evidence of the impact of JASPERS based on a comparison of the topics where JASPERs provided assistance and the topics raised by the DG for Regional Policy in Interruption Letters.

Section D draws together the conclusions from AECOMS work on Tasks 1 and 2 of this evaluation.

Section B: Task 1 Construction and Analysis of Timelines

Section B: Task 1 Construction and Analysis of Timelines

B1: Introduction

B1.1 Overview

A key element of the evaluation of JASPERS is to establish the impact of JASPERS, from its inception in 2005 up until the end of June 2011, on the Timelines of the preparation and submission of major projects to the DG for Regional Policy for funding approval.

Since its inception in 2005, the 12 new Member States have availed of the support made available through the JASPERS technical assistance facility. JASPERS support has been provided through the four JASPERS office, Vienna, Bucharest, Warsaw and Luxembourg. Vienna offices are primarily concerned with projects and assignments from Czech Republic, Slovenia, Slovakia, Hungary and Malta. Bucharest offices provide services to Bulgaria and Romania while the Warsaw office provides services to Poland, Estonia, Latvia and Lithuania. The Luxembourg office provides overall co ordination and JASPERS services to Cyprus

The extent to which each Member State has availed of JASPERS support, in relation to major projects only, is illustrated in Table B1.1. The Table sets out the total number of major project applications for funding submitted by each Member State up until January 2012, as well as the proportion of these that were JASPERS-assisted. As outlined in the Table, Member States have varied significantly in terms of the number of projects they have submitted to the DG for Regional Policy for grant financing, ranging from single digit numbers of projects in Cyprus, Latvia, Lithuania, and Malta to in excess of 100 projects in Poland. Member States have also differed in terms of their usage of JASPERS. All major project applications for funding in Bulgaria, Hungary, Latvia, Lithuania, Malta, Slovakia and Cyprus were JASPERS-assisted; approximately 90 per cent of equivalent applications in the Czech Republic, Romania and Slovenia were JASPERS-assisted, while just 50 per cent of equivalent applications in both Poland and Estonia were JASPERS-assisted.

Table B1.1: Number of Major Project Applications for Funding and % Supported by JASPERS, 2007 – Jan 2012 *

Member State	Total No Applications for Funding	% JASPERS Assisted
Bulgaria	14	100.0
Cyprus	1	100.0
Czech Republic	40	92.5
Estonia	12	50.0
Hungary	33	100.0
Latvia	7	100.0
Lithuania	6	100.0
Malta	4	100.0
Poland	124	49.2
Romania	75	86.7
Slovakia	19	100.0
Slovenia	11	90.9
Total	346	76.0

Source: the DG for Regional Policy

* The Figures in Table B1.1 are based on the total number of major project applications for 2007 – 2012 Structural and Cohesion funding made to the DG for Regional Policy up to January 2012. The evaluation of JASPERS is concerned with JASPERS support provided up to June 2011, hence the number of major project applications for funding set out in Table B1.1 differ from those used elsewhere in the report.

To investigate the issue of the effect of JASPERS on the development of projects by Member States and the decision process by the DG for Regional Policy regarding major project applications for funding, four types of Timelines were prepared, each relating to a type of JASPERS assignment, with an additional comparison Timeline for non-JASPERS-assisted major projects. The four Timelines, which were identified in the Request for Tenders, were as follows:

- Timeline 1: Timelines for the major projects which received JASPERS support and which were submitted to the DG for Regional Policy for approval;
- Timeline 2: Timelines for the major projects that were submitted to the DG for Regional Policy for approval without any assistance from JASPERS;
- Timeline 3: Timelines for non-major projects which received JASPERS support and where the Member State then decided the future of the project; and
- Timeline 4: Timelines for the 'horizontal' assignments where JASPERS provided assistance to a Member State that did not relate to a specific project.

Each Timeline comprises one or more durations which together form the project preparation period.

This Section (Section B) of the report is concerned with the construction and analysis of the four Timelines identified above. The remainder of Section B1 presents an overview of the data sources used to create, as well as the format of, each Timeline. Section B1 also provides an outline of the steps taken to construct the dataset of projects/assignments comprising each Timeline. Section B2 profiles the projects/assignments forming each Timeline according to a range of criteria including Member State, project sector, and project size. In Section B3, average durations for each Timeline are calculated through summary statistics before being cross-classified according to a range of factors, including Member State, project sector, and project size. In Section B4, the extent to which the Timeline durations have changed over time is reviewed. Section B5 explores the relationship between durations and the range of factors that have affected them. This analysis includes multivariate statistical analysis. Finally Section B6 sets out the findings from this Section of the report.

B1.2 Data Sources, Format of Timelines and Construction of Timeline Datasets

Data Sources

The basic data required to construct the four Timelines was sourced from the DG for Regional Policy and JASPERS databases, which are presented in more detail below. In addition, the following data sources were also used where necessary, in the construction of the Timelines:

- Action Plans for each beneficiary Member State for each of the years from 2005 – 2011;
- Project Fiches prepared by JASPERS at the start of each assistance project;
- Completion Notes prepared by JASPERS at the end of each assistance project; and
- Information from Member States regarding the decision dates for non-major projects.

Annex B2 provides further details of the contents of the JASPERS Action Plans, Project Fiches and Completion Notes.

JASPERS Database

The JASPERS database contains details of all completed JASPERS assignments, and includes the key fields set out in Table B1.2. (Annex B1 Table 1 provides a complete listing of the data fields in the JASPERS database).

Table B1.2: Key Data Fields in the JASPERS Database

Field	Options (where relevant)
Title	
Sector	Air, maritime and public transport; Roads; Water and wastewater; Knowledge economy, energy and waste; Multi-sector
Subsector	There are 19 subsectors used in the database
Country	Bulgaria; Cyprus; Czech Republic; Estonia; Hungary; Latvia; Lithuania; Malta; Poland; Slovakia; Slovenia; Multi
Application Status	Not Applicable; Concept Stage; Pre Feasibility; Completed; Feasibility Ongoing; Feasibility Completed; Application Approved at National Level; Application Submitted to EC; Application Approved by EC; Project Implementation Completed
Project Type	Non-Major; Major; Horizontal
JASPERS Completion date	
Estimated Total Cost	
JASPERS Office	Luxembourg; Warsaw; Vienna; Bucharest
European Commission Reference*	
National Approval Date	

Source: JASPERS database

* The '*European Commission Reference'* field contains a European Commission application for funding reference number that is also present in the DG for Regional Policy database (*the DG for Regional Policy Project Number (CCI)*), thereby enabling a matching of JASPERS assignments with their corresponding application for funding in the DG for Regional Policy database.

As set out in Table B1.2, the JASPERS database contains details of the date when JASPERS work in relation to the project ceased ('*JASPERS Completion date'*). It also contains a field ('*National Approval Date'*) relating to the date when national authorities in each Member State gave approval to non-major projects. (The '*National Approval Date'* field was populated for approximately one-quarter of all non-major JASPERS-assisted projects). The database also contains details relating to: Member State (*Country*); project type (*Project Type*); project sector (*Sector* and *Subsector*); as well as project size as determined by project costs (*Estimated Total Cost*).

DG for Regional Policy Database

The SFC2007 database is used by the DG for Regional Policy to record and manage applications for major project funding. The SFC2007 database contains links to key documents for each major project, including completed funding application documents, as well as any interruption letters issued by the DG for Regional Policy. Key data available from the SFC2007 database that were used for the purposes of the JASPERS evaluation include the data fields set out in Table B1.3. (Annex B1 Table 2 provides a complete list of the fields in the DG for Regional Policy database).

As set out in Table B1.3, the Timeline data available in the DG for Regional Policy database includes the following fields:

- *Elapsed days (without interruption)* – which relates to the number of days from the date the project was submitted to the DG for Regional Policy to the date the DG for Regional Policy made a funding Decision in relation to the project;

- *Elapsed days (with interruption)* – which relates to the number of days the DG for Regional Policy spent actively accessing the application (excluding time the application was interrupted).

In addition, the DG for Regional Policy database also provides data regarding the Member State; the project sector (*Project Category*); the project size (as determined by the project costs in the *Total Cost* field); as well as the application status (*Status*); which enabled the major projects to be profiled according to these key criteria.

Table B1.3: Key Data Fields in the DG for Regional Policy Database

Field	Options (where relevant)
Member State	
the DG for Regional Policy Project Number (CCI)	
Project Title	
Project Category	There are 56 project categories that reflect the individual sectors that projects may fall into (e.g. motorways; national roads; regional/local roads etc.)
Total Cost	
JASPERS technical assistance	Yes; No
Status	Decided; Active; Interrupted; To be submitted
Elapsed days (with interruption)	
Elapsed days (without interruption)	
Date of Reception	
Decision Date	

Source: the DG for Regional Policy Database

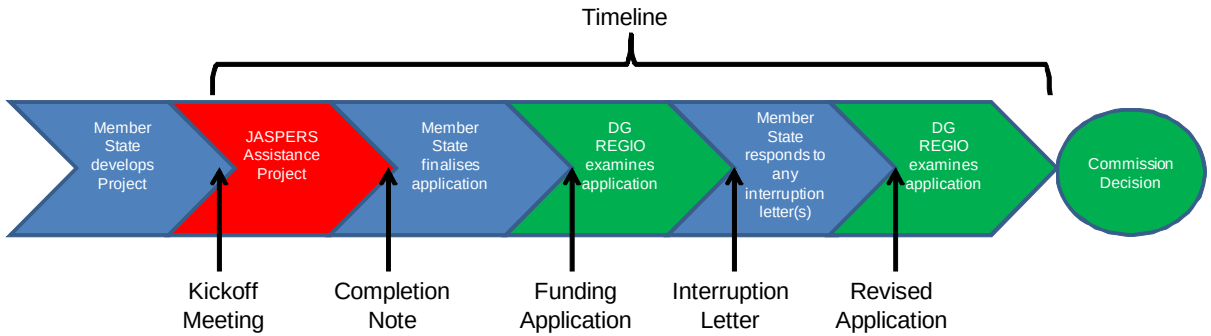
Format of Timelines

Each Timeline is comprised of a number of durations which together form the project preparation period. The durations forming each Timeline and the data sources used to compile them are set out in Figures B1.1 – B1.4.

Major Projects in Receipt of JASPERS Assistance

The first and most complex Timeline relates to major projects which received JASPERS assistance prior to an application for funding being submitted to the DG for Regional Policy for approval, which is set out in Figure B1.1.

Figure B1.1: Timeline of Major Projects in Receipt of JASPERS Assistance



Durations forming Timeline	Definition of Durations	Data Sources
Project Planning Duration	*Number of days between:* 1 JASPERS Start Date 2 DG for Regional Policy Decision Date	JASPERS Completion Notes (kickoff meeting date) DG for Regional Policy database (Field: '*Decision Date*')
JASPERS Duration	*Number of days between:* 1 JASPERS Start Date 2 JASPERS Completion Date	JASPERS Completion Notes (kickoff meeting date) JASPERS database (Field: *'Completion Date'*)
Post JASPERS pre- DG for Regional Policy Submission Duration	*Number of days between:* 1 JASPERS Completion Date 2 DG for Regional Policy Submission Date	JASPERS database (Field: '*Completion Date')* DG for Regional Policy database (Field: '*Date of Reception*')
DG for Regional Policy Decision Duration	The number of days from the DG for Regional Policy submission date to the DG for Regional Policy decision date	DG for Regional Policy database (Field*: 'Elapsed days (without interruption)'*)
DG for Regional Policy Interruption Duration	The number of days during which the DG for Regional Policy's appraisal process was interrupted	DG for Regional Policy database (Field: *'Elapsed days (without interruption)'*) *Minus* DG for Regional Policy database (Field: *'Elapsed days (with interruption)'*)
DG for Regional Policy Active Appraisal Duration	The number of days during which the DG for Regional Policy's appraisal process was active	DG for Regional Policy database (Field: *'Elapsed days (with interruption)'*)

As set out in Figure B1.1, the Timeline relating to major projects which received JASPERS assistance comprises six durations, as follows:

- The Project Planning Duration[1] – relates to the time between the start of JASPERS assistance and the DG for Regional Policy funding Decision;
- The JASPERS Duration – relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance for a project;
- The Post JASPERS pre-the DG for Regional Policy Submission Duration – relates to the time between the end of the JASPERS assistance and the submission of an application to the DG for Regional Policy;
- The DG for Regional Policy Decision Duration – relates to the time between the submission of an application to the DG for Regional Policy and the DG for Regional Policy funding Decision;
- The DG for Regional Policy Interruption Duration – relates to the time during which the DG for Regional Policy application process is interrupted;
- The DG for Regional Policy Active Appraisal Duration - relates to the time during which the DG for Regional Policy is actively accessing the project application.

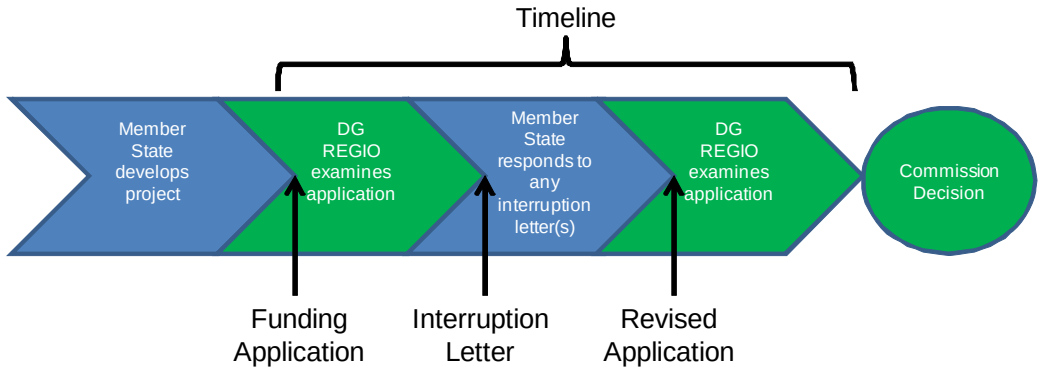
Major Projects not in Receipt of JASPERS Assistance

The second Timeline (see Figure B1.2) relates to major projects which did not receive JASPERS assistance prior to an application for funding being submitted to the DG for Regional Policy for approval. This Timeline comprises three durations, as follows:

- The DG for Regional Policy Decision Duration – relates to the time between the submission of an application to the DG for Regional Policy and the DG for Regional Policy funding Decision;
- The DG for Regional Policy Interruption Duration – relates to the time during which the DG for Regional Policy application process is interrupted;
- The DG for Regional Policy Active Appraisal Duration - relates to the time during which the DG for Regional Policy is actively accessing the project application.

[1] All durations were measured in elapsed number of days, where elapsed days include all days between a defined start and finish date; no account is taken of weekends, bank holidays and other non-working days.

Figure B1.2: Timeline of Major Projects not in Receipt of JASPERS Assistance



Member State the DG for Regional Policy

Durations forming Timeline	Definition	Data Sources
the DG for Regional Policy Decision Duration	The number of days from the DG for Regional Policy submission date to the DG for Regional Policy Decision date	the DG for Regional Policy database (Field: '*Elapsed days (without interruption)*')
the DG for Regional Policy Interruption Duration	The number of days during which the DG for Regional Policy's appraisal process was interrupted	the DG for Regional Policy database (Field: '*Elapsed days (without interruption)*') *Minus* the DG for Regional Policy database (Field: '*Elapsed days (with interruption)*')
the DG for Regional Policy Active Appraisal Duration	The number of days during which the DG for Regional Policy's appraisal process was active	the DG for Regional Policy database (Field: '*Elapsed days (with interruption)*')

Non-Major Projects in Receipt of JASPERS Assistance

The third Timeline relates to non-major projects which received JASPERS assistance (see Figure B1.3) and comprises two durations, as follows:

- The Project Planning Duration - relates to the time between the start of JASPERS assistance and the date the Member States makes a implementation decision regarding the project;

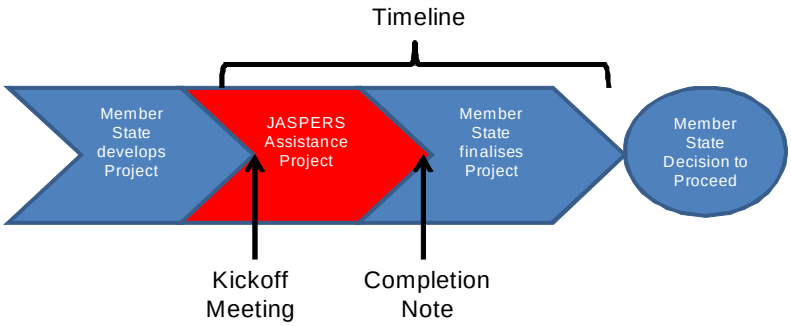
- The JASPERS Duration – relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance.

Horizontal Assignments in Receipt of JASPERS Assistance

The fourth Timeline relates to horizontal assignments which received JASPERS assistance (see Figure B1.4) and which comprise one duration, as follows:

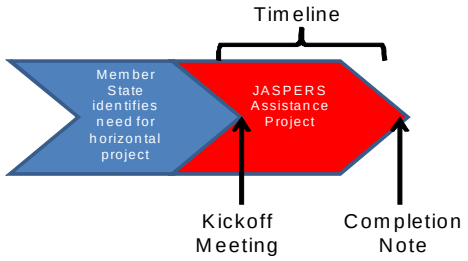
- The JASPERS Duration - relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance.

Figure B1.3: Timeline of Non-Major Projects in Receipt of JASPERS Assistance



Durations forming Timeline	Definition	Data Sources
Project Planning Duration	*Number of days between:* 1 JASPERS Start Date 2 Member State National Approval Date	JASPERS Completion Notes (kickoff meeting date) Member States were asked to supply National Approval Dates
JASPERS Duration	*Number of days between:* 1 JASPERS Start Date 2 JASPERS Completion Date	JASPERS Completion Notes (kickoff meeting date) JASPERS database (Field: *'Completion Date'*)

Figure B1.4: Timeline of Horizontal Assignments in Receipt of JASPERS Assistance



Durations forming Timeline	Definition	Data Sources
JASPERS Duration	*Number of days between:* 1 JASPERS Start Date	JASPERS Completion Notes (kickoff meeting date)
	2 JASPERS Completion Date	JASPERS database (Field: *'Completion Date'*)

Construction of Timeline Datasets for Analysis

Using the data sources set out in Figures B1.1 – B1.4, the datasets of projects comprising each of the four Timelines was constructed as follows:

Table B1.4: Steps Taken to Construct Datasets comprising each Timeline Type

Timeline of Major Projects in Receipt of JASPERS Assistance	**Timeline of Major Projects not in Receipt of JASPERS Assistance**
1. The JASPERS database was sorted and assignments relating to major projects only were retained; 2. The DG for Regional Policy database of projects was sorted and applications relating to JASPERS-assisted projects only were retained; 3. A matching exercise was completed to amalgamate the records in the JASPERS and the DG for Regional Policy databases where the records in the JASPERS database related to projects for which an application for funding existed in the DG for Regional Policy database; 4. Projects for which JASPERS assistance was completed post June 2011 were removed; 5. A project type mapping exercise was carried out to assign each record in the dataset to one of ten project sector types, which were agreed with the DG for Regional Policy for the purpose of the evaluation[2]; 6. An additional field was created in the matched dataset, to represent the *JASPERS Start Date*. The JASPERS Completion Notes were reviewed to identify a JASPERS start date, which was populated in the newly created '*JASPERS Start Date'* field; 7. The six durations forming the Timeline (as set out in Figure B1.1) were calculated for each record in the dataset, where necessary.	1. The DG for Regional Policy database of projects was sorted and applications relating to non-JASPERS assisted projects only were retained; 2. A project type mapping exercise was carried out to assign each record in the dataset to one of ten project sector types; 3. The three durations forming the Timeline as set out in Figure B1.2 were calculated where necessary.
Timeline of Non-Major Projects in Receipt of JASPERS Assistance	**Timeline of Horizontal JASPERS Assignments**
1. The JASPERS database was sorted and assignments relating to non-major projects only were retained; 2. Projects for which JASPERS assistance was completed post June 2011 were removed from the dataset;	1. The JASPERS database was sorted and assignments relating to Horizontal Assignments only were retained; 2. Assignments for which JASPERS assistance was completed post June 2011 were removed from the dataset;

[2] Each record was assigned one of ten project sectors, as follows: Ports and Waterways; Airports; Railways; Roads; Urban Transport; Energy; Solid Waste; Water and Wastewater; Knowledge Economy; Other.

3. A project type mapping exercise was conducted to assign each record in the dataset to one of the ten project type categories; 4. In a similar fashion to Timeline 1, the JASPERS start date was identified using the JASPERS Completion Notes, and added to each record in the dataset; 5. Each Member State was contacted and asked to provided details of the national approval date for each project, which was then added to each record in the dataset; 6. The two durations forming the Timeline as set out in Figure B1.3 were calculated.	3. A project type mapping exercise was conducted to assign each record in the dataset to one of the ten project type categories; 7. In a similar fashion to Timelines 1 and 3, the JASPERS start date was identified and added to each record in the file; 8. The one duration forming the Timeline as set out in Figure B1.4 were calculated where necessary.

Having completed the steps outlined in Table B1.4 the total number of project/assignment records in each of the four Timeline datasets was as set out in Table B1.5.

Table B1.5: Number of Project/Assignment Records in each Timeline Dataset

Timeline	Project/Assignment Type	Number of Projects/Assignments
Timeline 1	Major JASPERS-assisted	231
Timeline 2	Major non-JASPERS-assisted	82
Timeline 3	Non-Major JASPERS	91
Timeline 4	JASPERS Horizontal Assignments	87

B1.3 Summary

Since its inception in 2005, all 12 new Member States have availed of the JASPERS technical support facility. The Member States vary significantly in terms of the number of major project applications for funding they have submitted to the DG for Regional Policy as part of the 2007 – 2012 cohesion and structural funding period. Member States have also differed in terms of their usage of JASPERS. All major project applications for funding in Bulgaria, Hungary, Latvia, Lithuania, Malta, Slovakia and Cyprus were JASPERS-assisted; while just 50 per cent of equivalent applications in both Poland and Estonia were JASPERS-assisted.

In order to assess the impact of JASPERS on the assignments undertaken by JASPERS and the Decision process by the DG for Regional Policy regarding major project applications for funding, four types of Timelines were created, three relating to types of JASPERS projects/assignments (namely major; non-major; and horizontal), as well as a comparison Timeline for major projects that were not JASPERS-assisted.

Each Timeline comprises one or more durations which together form the project preparation period. A dataset of projects for each Timeline type was created using the JASPERS and the DG for Regional Policy databases where

appropriate. Having prepared the Timelines datasets, there were 231 major JASPERS-assisted projects; 82 major non-JASPERS-assisted projects; 91 non-major JASPERS-assisted projects and 87 JASPERS-assisted horizontal assignments.

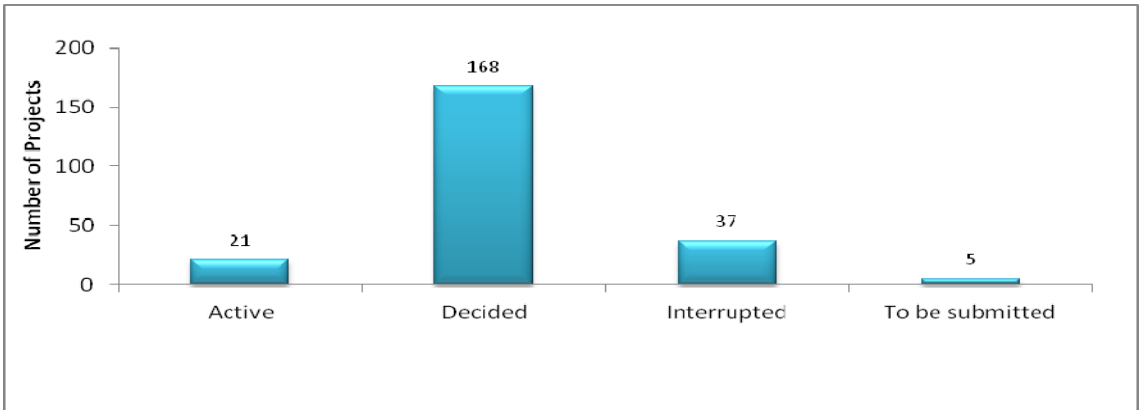
B2: Profile of Projects and Horizontal Assignments

As an introductory step to the analysis of Timeline durations, a profiling of the projects and assignments in each Timeline dataset was carried out. In Section B2.1 a profile of major JASPERS-assisted projects is presented. The major JASPERS-assisted projects are profiled by Member State; project sector; and project size. In addition, the major JASPERS-assisted projects are cross-classified by Member State and sector; as well as by Member State and year of application to the DG for Regional Policy. Sections B2.2, B2.3, and B2.4 profile the major non-JASPERS-assisted projects; non-major JASPERS projects; and the JASPERS horizontal assignments respectively in a similar fashion where possible.

B2.1: Major Projects in Receipt of JASPERS Assistance

In total, 231 major JASPERS-assisted projects were submitted to the DG for Regional Policy for funding approval over the period covered by the evaluation. Of these, 168 were in receipt of a DG for Regional Policy funding Decision. The remaining 63 projects were either interrupted; being actively assessed by the DG for Regional Policy; or had not been formally submitted to the DG for Regional Policy although they appeared in the DG for Regional Policy database. See Figure B2.1.

Figure B2.1: Number of Major JASPERS-Assisted Projects by Project Status



Project Status	Number of Projects	% Projects
Active	21	9.1
Decided	168	72.7
Interrupted	37	16.0
To be submitted	5	2.2
Total	231	100.0

Poland and Romania each accounted for one-quarter of all major JASPERS-assisted projects that have been submitted to the DG for Regional Policy for funding, so that together they accounted for half of all major JASPERS-assisted projects. An additional 14 per cent of major JASPERS-assisted projects originated in the Czech Republic and Hungary respectively. (See Figure B2.2).

One in three major JASPERS-assisted projects belonged to the 'Water and Wastewater' sector; while 'Roads' accounted for one-quarter of all major JASPERS-assisted projects. In total, 18 per cent of projects belonged to the 'Energy' sector. There were small numbers of both 'Ports and Waterways' and 'Airports' major JASPERS-assisted projects. (See Figure B2.3).

The size of all major JASPERS assisted projects as measured by total project costs was €42.8bn, with an average project cost of €185m. One-third of all major JASPERS-assisted projects cost between €50m and €100m; 30 per cent had costs between €100m and €200m; while one quarter (24 per cent) had project costs exceeding €200m (see Figure B2.4). Since 2007, the average cost of major JASPERS-assisted projects has been in decline. In 2010 (the most recent full year analysed) average project costs at €133.1m represented approximately 50 per cent of the equivalent average project costs in 2007 (€254.2m). Further analysis of this trend will be undertaken in Tasks 3 and 4. (See Figure B2.5).

On average, the largest major JASPERS-assisted projects were 'Roads' projects (€344m), followed by 'Urban Transport' (€276.1m) and 'Railways' (€265.1) projects. The smallest projects, in terms of their average project costs, belonged to the 'Solid Waste' sector (€61.7m). (See Table B2.1).

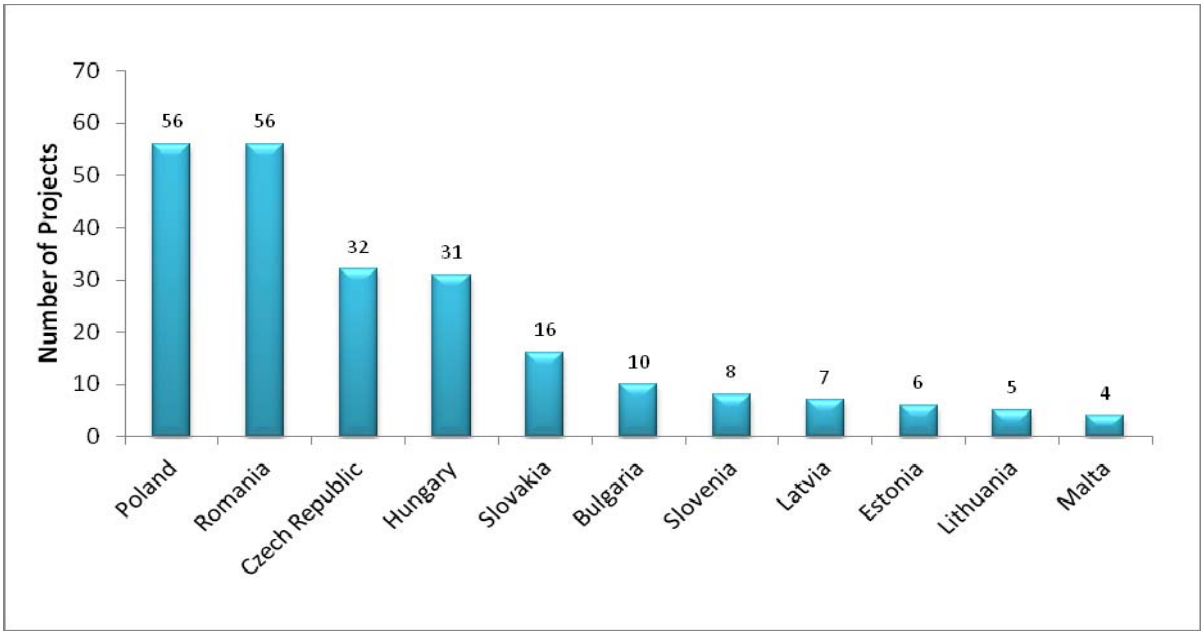
The major JASPERS-assisted projects were quite evenly distributed through the Vienna, Warsaw and Bucharest JASPERS offices. The largest proportion of major JASPERS-assisted projects were supported through the Vienna JASPERS office (38.1 per cent); followed by Warsaw (31.6 per cent) and Bucharest (29 per cent).

In four Member States, namely Hungary, Poland, Romania and Slovakia, the largest proportion of major JASPERS-assisted projects belonged to the 'Water and Wastewater' sector. Romania submitted the largest number of 'Water and Wastewater' projects. Two-thirds of Member States had projects falling into at least five of the ten project sectors. Estonia, Slovakia, Malta and Lithuania had projects relating to two to four sectors only. Latvia was unique among the 12 Member States in putting forward an application for funding for an 'Airports' project. (See Figure B2.7).

The number of major JASPERS-assisted projects submitted to the DG for Regional Policy decreased annually in Hungary since the first Hungarian application for funding was made in 2008. Estonia and Latvia also witnessed a decline in the number of JASPERS-assisted applications for funding submitted to the DG for Regional Policy. (See Figure B2.8).

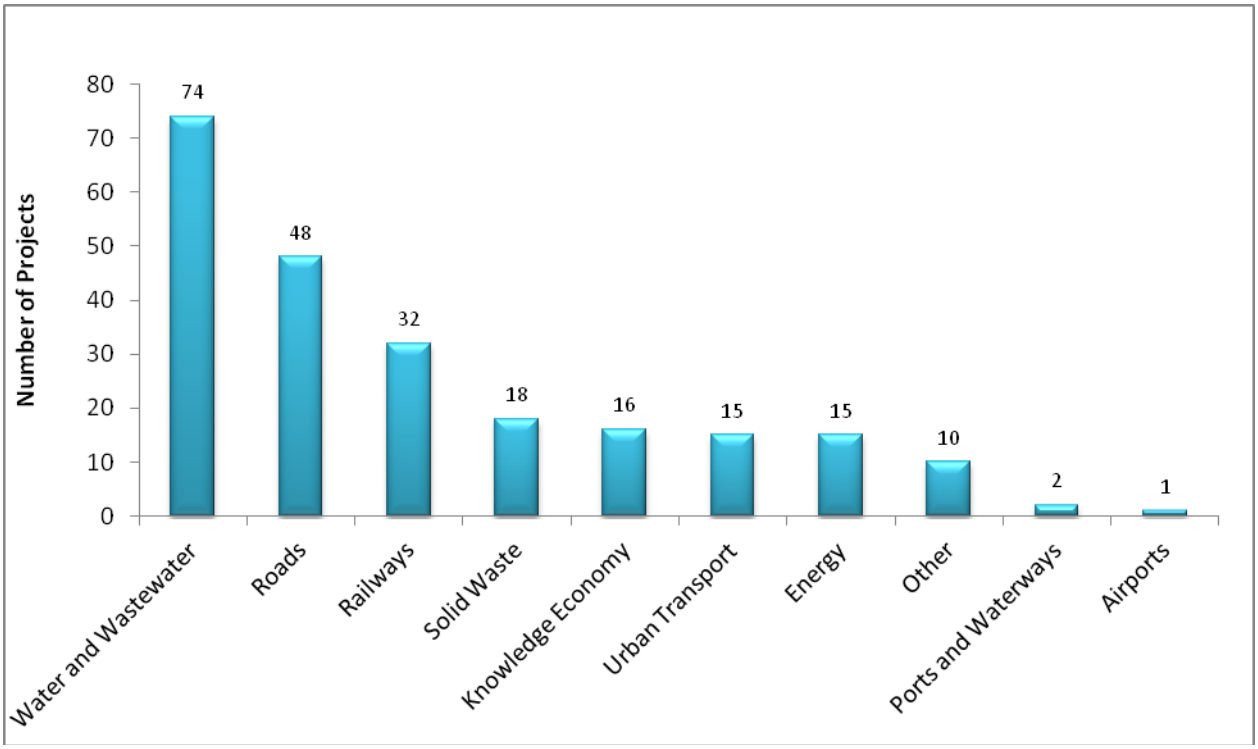
Annex B3 provides additional profiling data relating to major JASPERS-assisted projects.

Figure B2.2: Number of Major JASPERS-Assisted Projects by Member State



Member State	Number of Projects	% Projects
Bulgaria	10	4.3
Czech Republic	32	13.9
Estonia	6	2.6
Hungary	31	13.4
Latvia	7	3.0
Lithuania	5	2.2
Malta	4	1.7
Poland	56	24.2
Romania	56	24.2
Slovakia	16	6.9
Slovenia	8	3.5
Total	231	100.0

Figure B2.3: Number of Major JASPERS-Assisted Projects by Sector



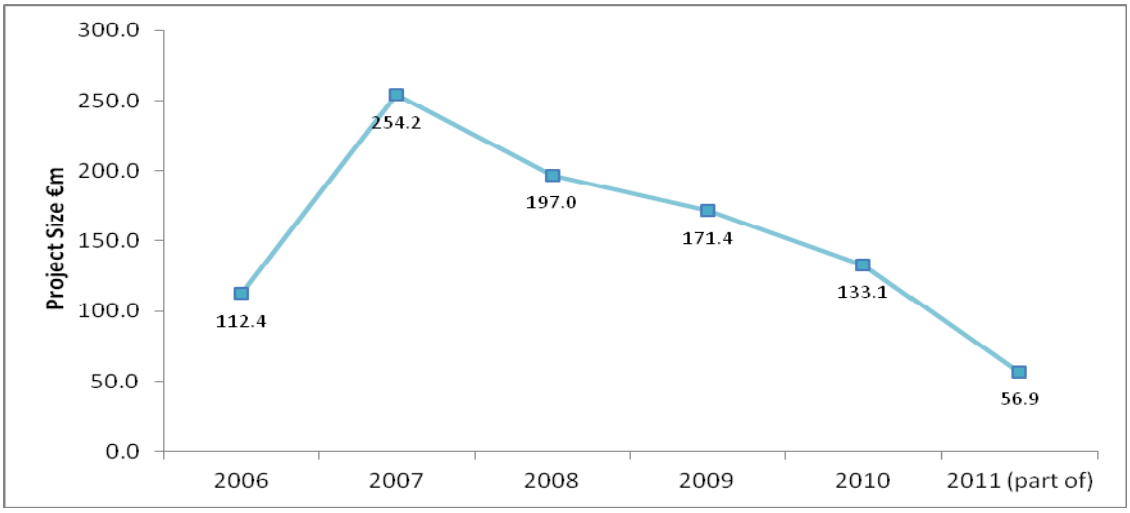
Sector	Number of Projects	% Projects
Airports	1	0.4
Energy	15	6.5
Knowledge Economy	16	6.9
Other	10	4.3
Ports and Waterways	2	0.9
Railways	32	13.9
Roads	48	20.8
Solid Waste	18	7.8
Urban Transport	15	6.5
Water and Wastewater	74	32.0
Total	231	100.0

Figure B2.4: Number of Major JASPERS-Assisted Projects by Project Size

Project Size	Number of Projects	% Projects
<= €50m	24	10.4
> €50m and <= €100m	80	34.6
> €100m and <= €150m	47	20.3
> €150m and <= €200m	24	10.4
> €200m	56	24.2
Total	231	100.0

Average Project Size	€m
All Major JASPERS Projects	185.3

Figure B2.5: Average Size of Major JASPERS-Assisted Projects by JASPERS Start Year

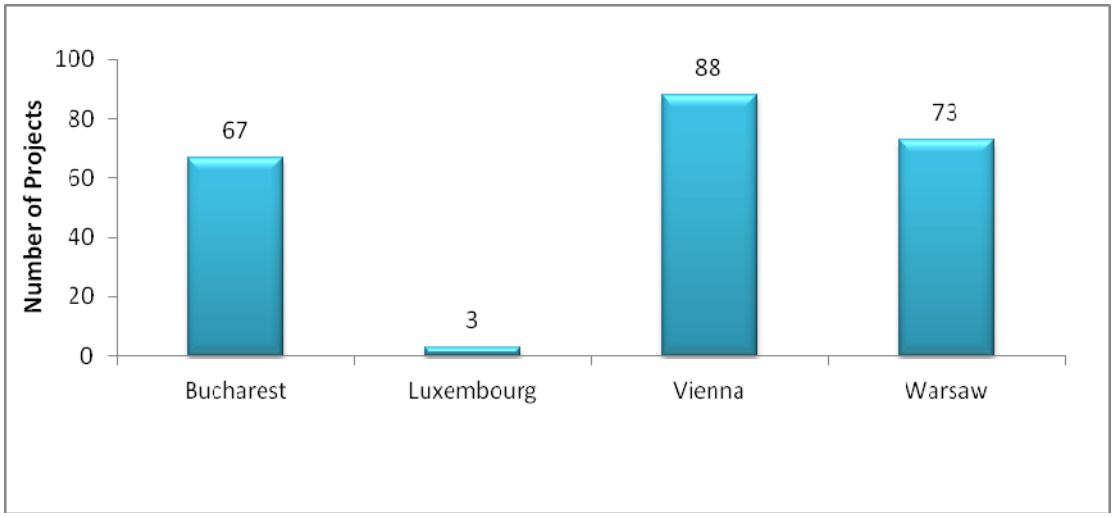


JASPERS Start Year	Number of Projects	% Projects	Average Size
2006	17	7.4	112.4
2007	47	20.3	254.2
2008	56	24.2	197.0
2009	84	36.4	171.4
2010	26	11.3	133.1
2011 (part of)	1	0.4	56.9
Total	231	100.0	185.3

Table B2.1: Average Size of Major JASPERS-Assisted Projects by Sector

Sector	Average Project Size €m
Airports	115.3
Energy	136.7
Knowledge Economy	134.2
Other	74.4
Ports and Waterways	164.3
Railways	265.1
Roads	344.0
Solid Waste	61.7
Urban Transport	276.1
Water and Wastewater	97.0
Total	185.3

Figure B2.6: Number of Major JASPERS-Assisted Projects by JASPERS Office



Size	Number of Projects	% Projects
Bucharest	67	29.0
Luxembourg	3	1.3
Vienna	88	38.1
Warsaw	73	31.6
All	231	100.0

Figure B2.7: Number of JASPERS-Assisted Major Projects by Member State and by Sector

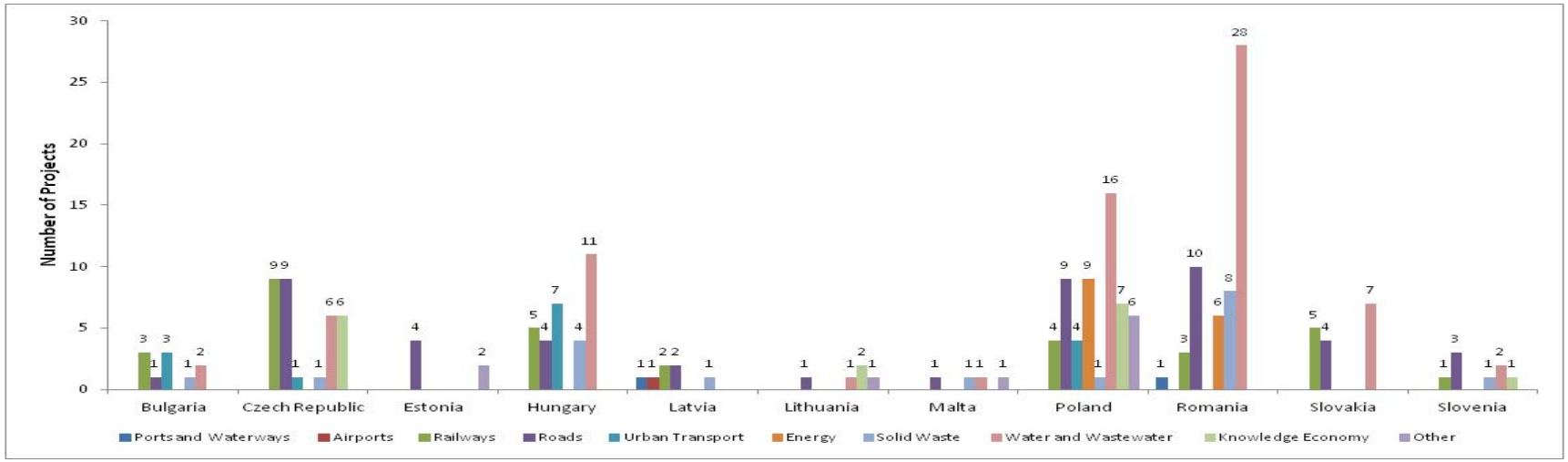
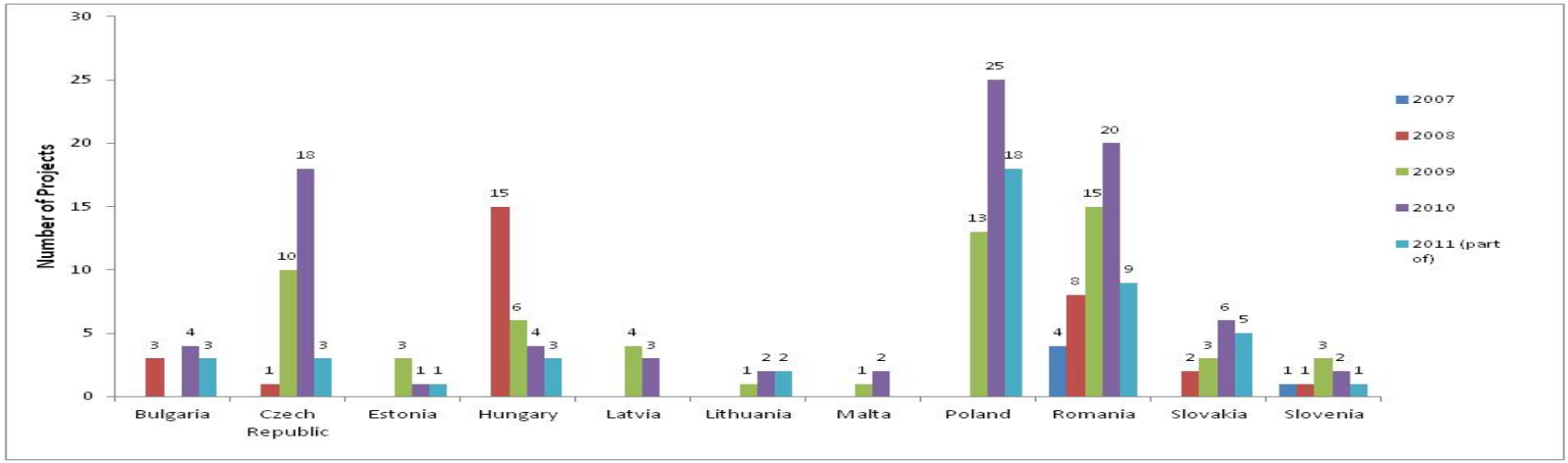


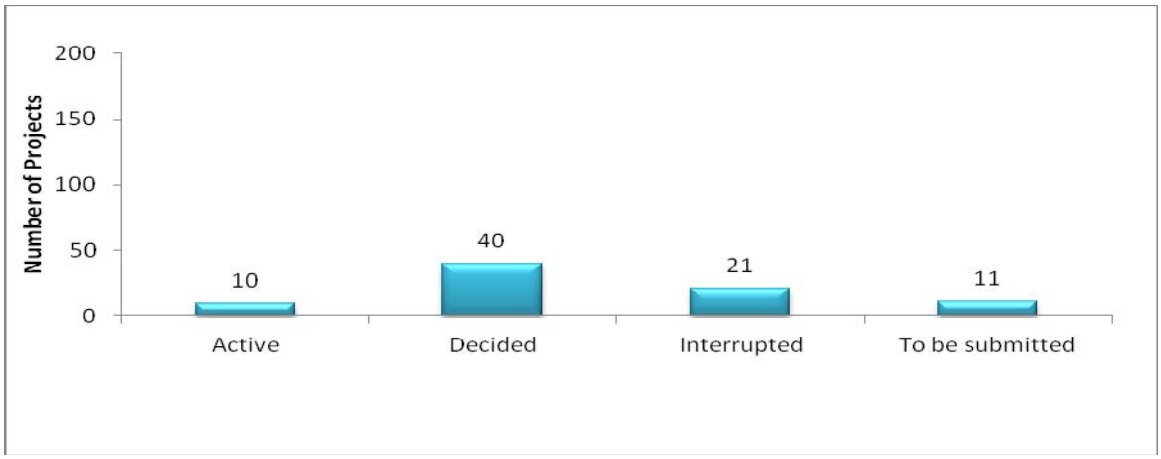
Figure B2.8: Number of JASPERS-Assisted Major Projects by Member State and by year Submitted to the DG for Regional Policy for Funding Approval



B2.2: Major Projects not in Receipt of JASPERS Assistance

In total, there were 82 major non-JASPERS-assisted projects submitted to the DG for Regional Policy for funding approval over the period covered by the evaluation. Of these, 40 were in receipt of a funding Decision. See Figure B2.9.

Figure B2.9: Number of Major Non-JASPERS-Assisted Projects by Project Status



Project Status	Number of Projects	% Projects
Active	10	12.2
Decided	40	48.8
Interrupted	21	25.6
To be submitted	11	13.4
Total	82	100.0

Figures B2.10, B2.11, B2.12 and Table B2.2 profile the major non-JASPERS-assisted projects in terms of their Member State; project sector; and project size. In addition, Figure B2.12 cross-classifies the projects by Member State and project sector; while Figure B2.13 cross-classifies the projects by Member State and the year the application was submitted to the DG for Regional Policy for funding approval. Annex B4 provides additional profiling data in relation to major non-JASPERS-assisted projects.

In total, five Member States submitted major non-JASPERS-assisted projects to the DG for Regional Policy for funding approval. Among the five Member States, the projects were predominately concentrated in Poland (75.6 per cent). An additional 12 per cent were Romanian, see Figure B2.10.

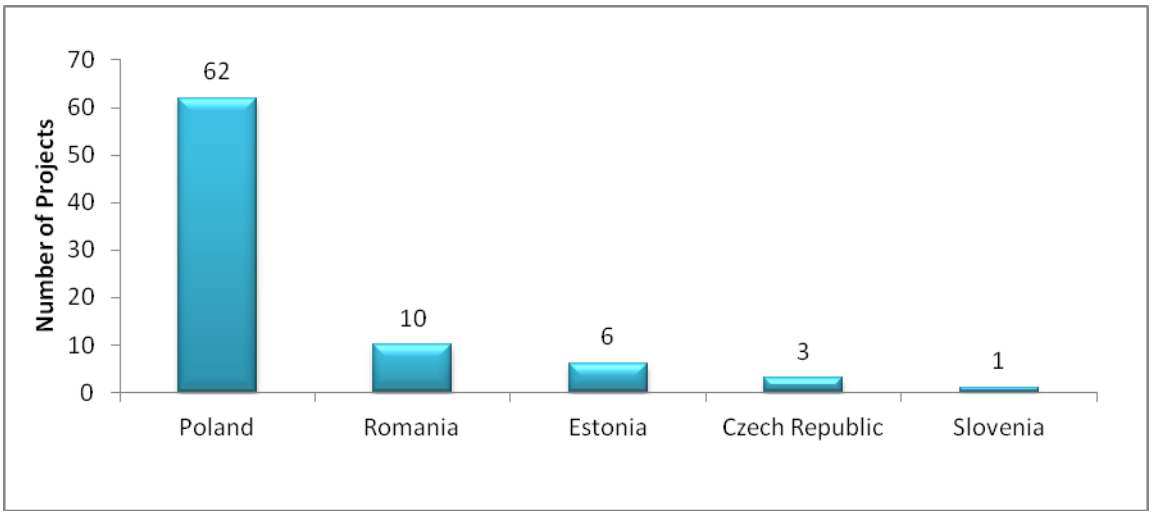
Approximately one-quarter of the non-JASPERS-assisted major projects belonged to the ‘Roads’ sector, while 22 per cent belonged to the ‘Water and Wastewater’ sector. Similar to their JASPERS-assisted counterparts, few non-JASPERS-assisted major project applications were submitted for ‘Airports’ and ‘Urban Transport’ projects. See Figure B2.11.

The size of all non-JASPERS-assisted projects as measured by total project costs was €8.6bn, with an average cost of €112.3m. Approximately half of non-JASPERS-assisted major projects had costs totalling between €50m and €100m. Just 9 per cent of projects had project costs exceeding €200m. See Figure B2.12. While the average size of JASPERS-assisted major projects broadly increased over 2007 – 2010 period, the average costs of non-JASPERS-assisted major projects declined over the 2008 – 2010 period. (See Figure B2.13).

On average, the largest major non-JASPERS-assisted projects belonged to the ‘Roads’ sector (€189.5m), followed by the ‘Railways’ sector (€128.5m). The smallest projects belonged to the ‘Solid Waste’ sector (€48.1m). See Table B2.2.

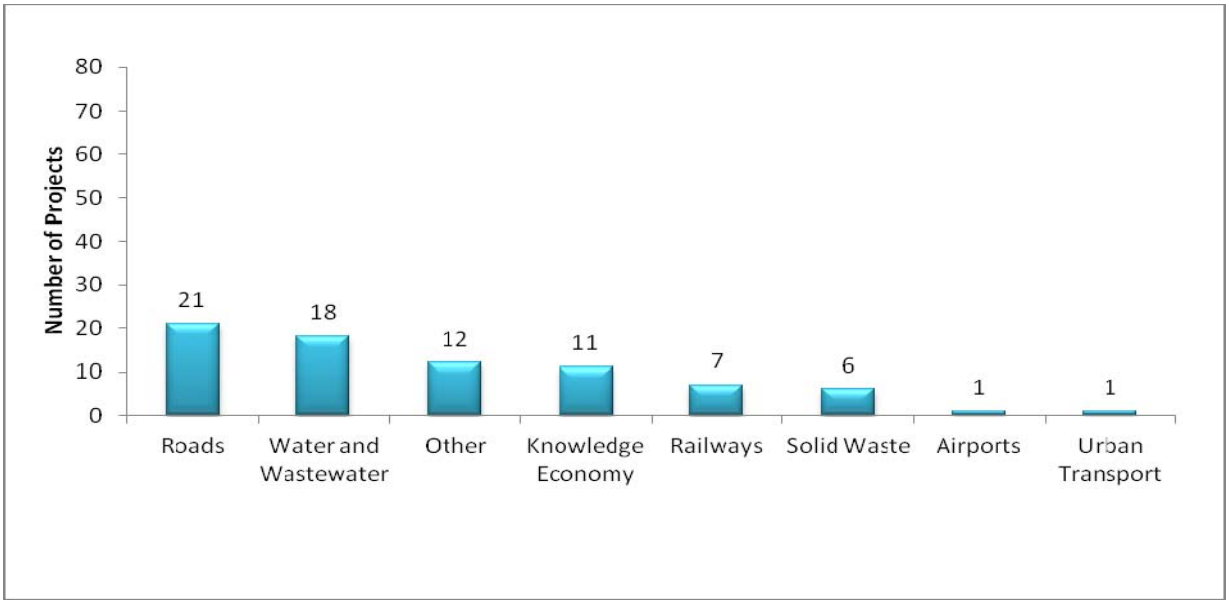
Poland submitted major non-JASPERS-assisted funding applications for projects falling into 8 sectors. One-third of Polish projects belonged to the ‘Roads’ sector. The projects submitted by both Slovenia and the Czech Republic belonged to one sector only; ‘Roads’ and ‘Railways’ respectively. Romania, submitted projects falling into two sectors only, namely ‘Solid Waste’ and ‘Water and Wastewater’. See Figure B2.14.

Figure B2.10: Number of Major Non-JASPERS-Assisted Projects by Member State



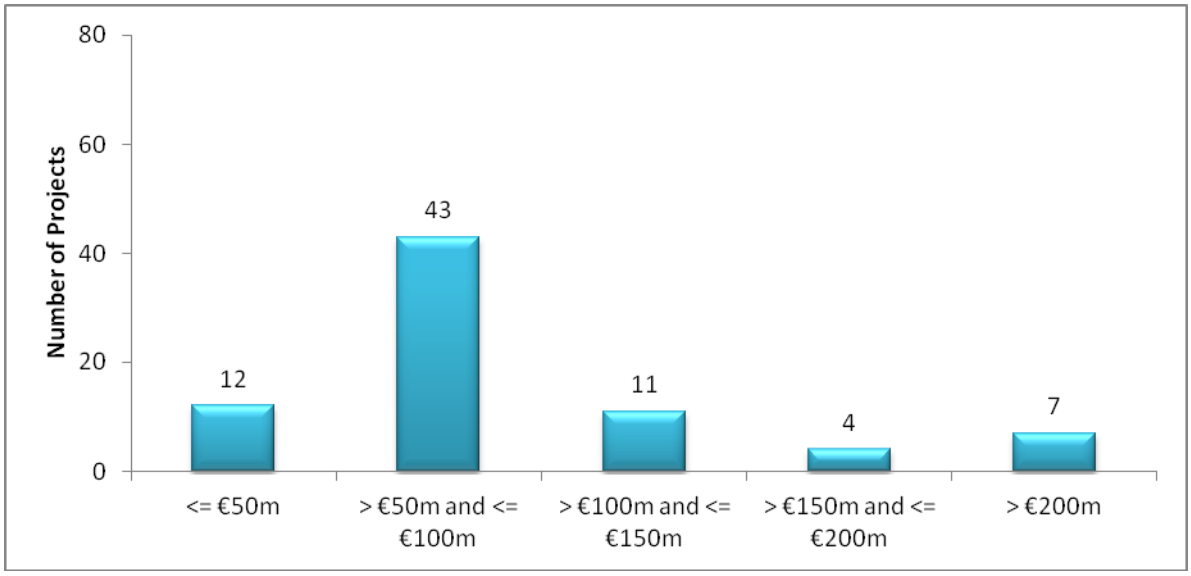
Member State	Number of Projects	% Projects
Czech Republic	3	3.7
Estonia	6	7.3
Poland	62	75.6
Romania	10	12.2
Slovenia	1	1.2
Total	82	100.0

Figure B2.11: Number of Major Non-JASPERS-Assisted Projects by Sector



Sector	Number of Projects	% Projects
Airports	1	1.2
Knowledge Economy	11	13.4
Not Specified	5	6.1
Other	12	14.6
Railways	7	8.5
Roads	21	25.6
Solid Waste	6	7.3
Urban Transport	1	1.2
Water and Wastewater	18	22.0
Total	82	100.0

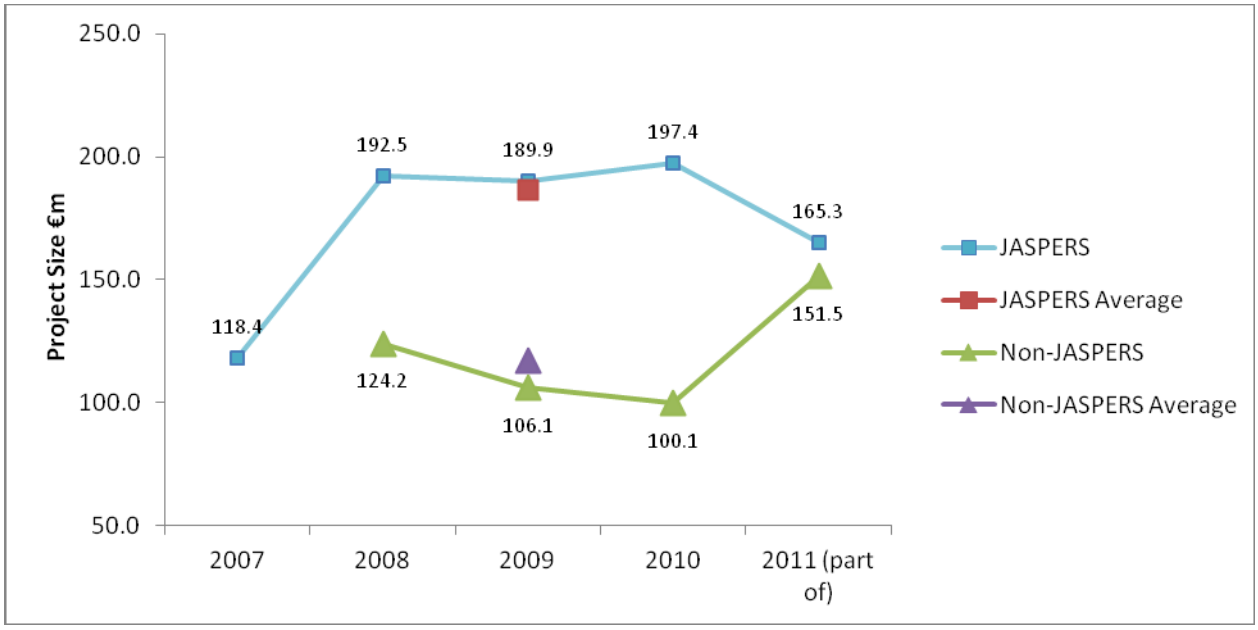
Figure B2.12: Number of Major non-JASPERS Projects by Project Size (€m)



Project Size	Number of Projects	% Projects
<= €50m	12	14.6
> €50m and <= €100m	43	52.4
> €100m and <= €150m	11	13.4
> €150m and <= €200m	4	4.9
> €200m	7	8.5
Missing	5	6.1
Total	82	100.0

Average Project Size	€m
All Major Non-JASPERS Projects	112.3

Figure B2.13: Average Size of Major Projects by Year Application made to the DG for Regional Policy



Year of Application to the DG for Regional Policy	Average JASPERS-assisted Project Size €m (n)*	Average Non-JASPERS-assisted Project Size €m (n)*
2007	118.4 (5)	- (0)
2008	192.5 (30)	124.2 (11)
2009	189.9 (59)	106.1 (18)
2010	197.4 (87)	100.1 (26)
2011 (part of)	165.3 (45)	151.5 (16)
All Projects*	186.6 (226)	116.9 (71)

*Excludes Projects with a status of 'To be submitted'

Table B2.2: Average Size of Major Non-JASPERS-Assisted Projects by Sector

Sector	Average Project Size €m
Airports	57.4
Knowledge Economy	82.5
Other	84.0
Railways	128.5
Roads	189.5
Solid Waste	48.1
Urban Transport	69.6
Water and Wastewater	79.7
Total	112.3

Figure B2.14: Number of Major Non-JASPERS-Assisted Projects by Member States and by Sector

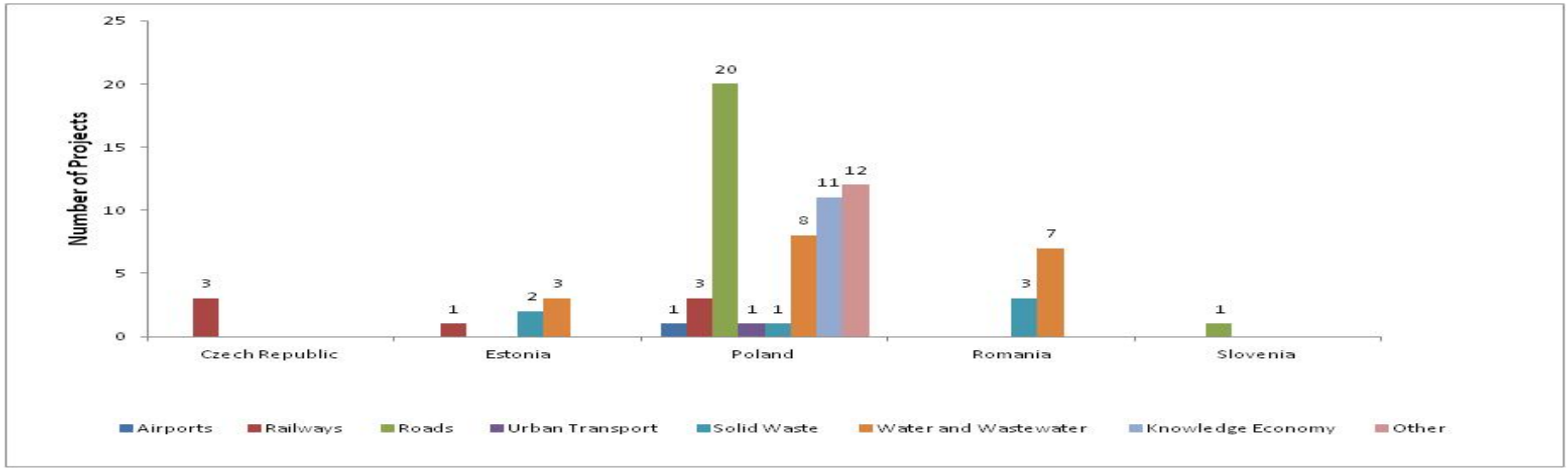
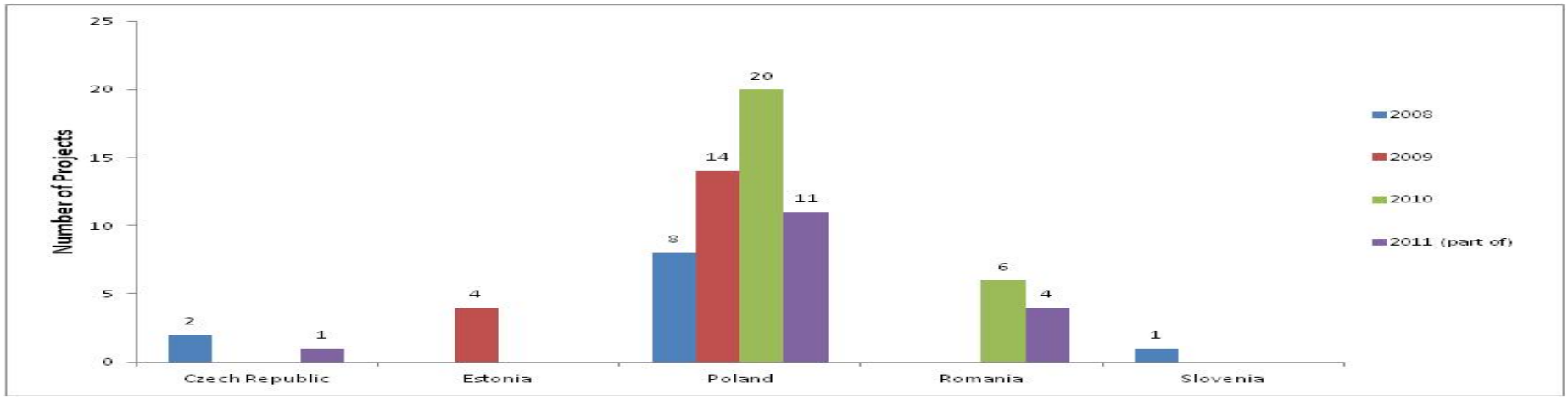


Figure B2.15: Number of Major Non-JASPERS-Assisted Projects by Member States and by year Application for Funding was submitted to the DG for Regional Policy



B2.3: Profile of Non-Major Projects in Receipt of JASPERS Assistance

In total, 91 non-major JASPERS-assisted projects received JASPERS assistance over the period covered by the evaluation

Figures B2.16, B2.17, B2.18, B2.19 and B2.20 profile the non-major JASPERS-assisted projects in terms of their Member State; project sector; project size and JASPERS support office. In addition, Figure B2.21 cross-classifies the projects by Member State and project sector; while Figure B2.22 cross-classifies the projects by Member State and the year their JASPERS assistance commenced.

All 12 Member States participated in non-major JASPERS-assisted projects. Romania and Poland accounted for 29 and 21 per cent of projects respectively. An additional 13 and 11 per cent were located in Bulgaria and Slovenia respectively. See Figure B2.16.

Approximately 29 per cent of non-major JASPERS-assisted projects belonged to the 'Solid Waste' sector, while 'Water and Wastewater' accounted for 22 per cent of projects. In total, 16 per cent of projects belonged to the 'Railways' sector. There were small numbers of non-major JASPERS-assisted projects in the 'Airports', 'Knowledge Economy', 'Other' and 'Ports and Waterways' sectors. (See Figure B2.17).

The size of all non-major JASPERS-assisted projects as measured by total project costs was €23.1bn, with an average cost of €26m. One-quarter of all non-major JASPERS-assisted projects cost between €20m and €30m, 20 per cent had costs exceeding €40m. (See Figure B2.18). The largest non-major JASPERS-assisted projects were in the Water and Wastewater sector (€34.6m). See Table B2.3. Over time there is a very slight upward trend in the size of non-major JASPERS projects. (See Figure B2.19)

Across the four JASPERS offices, the largest proportion non-major JASPERS-assisted projects were supported through by the Bucharest office (42.9 per cent), a further 25.3 per cent were supported through the Warsaw JASPERS office. The Vienna JASPERS offices supported 24.2 per cent of all non-major JASPERS-assisted projects. See Figure B2.20

Half of all 12 Member States had non-major JASPERS-assisted projects belonging to at most two sectors. In Romania approximately half (46 per cent) of all the country's 26 non-major JASPERS-assisted projects were 'Railways' projects. In Bulgaria, 92 per cent of projects belonged to the 'Solid Waste' sector. See Figure B2.21

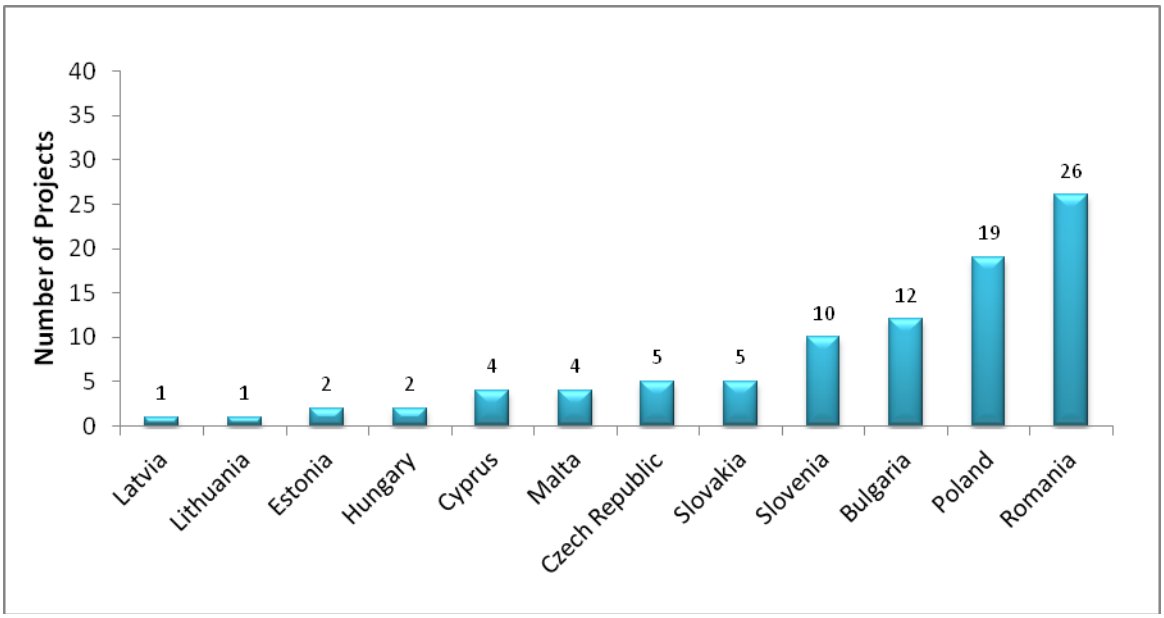
Across all Member States, 32 per cent of JASPERS non-major assignments were commenced in 2007, or earlier. Fifty-four per cent of Romanian projects commenced their JASPERS assistance in 2007. The equivalent proportion of Polish projects was 32 per cent. See Figure B2.22.

Non- major projects across sectors typically included:

- Railways – Over 46 per cent of non-major projects in the Rail sector related to the modernisation of railway stations. An additional 26 per cent of projects were concerned with issues around railway safety while the remaining non-major projects were concerned with the construction of an intermodal centres, modernising bridges and regeneration some sections of rail track.
- Roads – Six non major projects fell under the roads sector and varied from the reconstruction of a roundabout in Lithuania to the construction of a new bridge in Estonia. In Malta the non major project involved the implementation of an Intelligent Traffic Management System while in Slovakia the non major project involved the construction of a new road across the river Vah. Two non major roads projects undertaken in Slovenia were concerned with the construction of a bypass road and a separated crossing of a regional road and railway junction.
- Knowledge Economy – The only non major project to receive JASPERS assistance in the Knowledge Economy sector related to the establishment of a biotechnology centre in Poland.

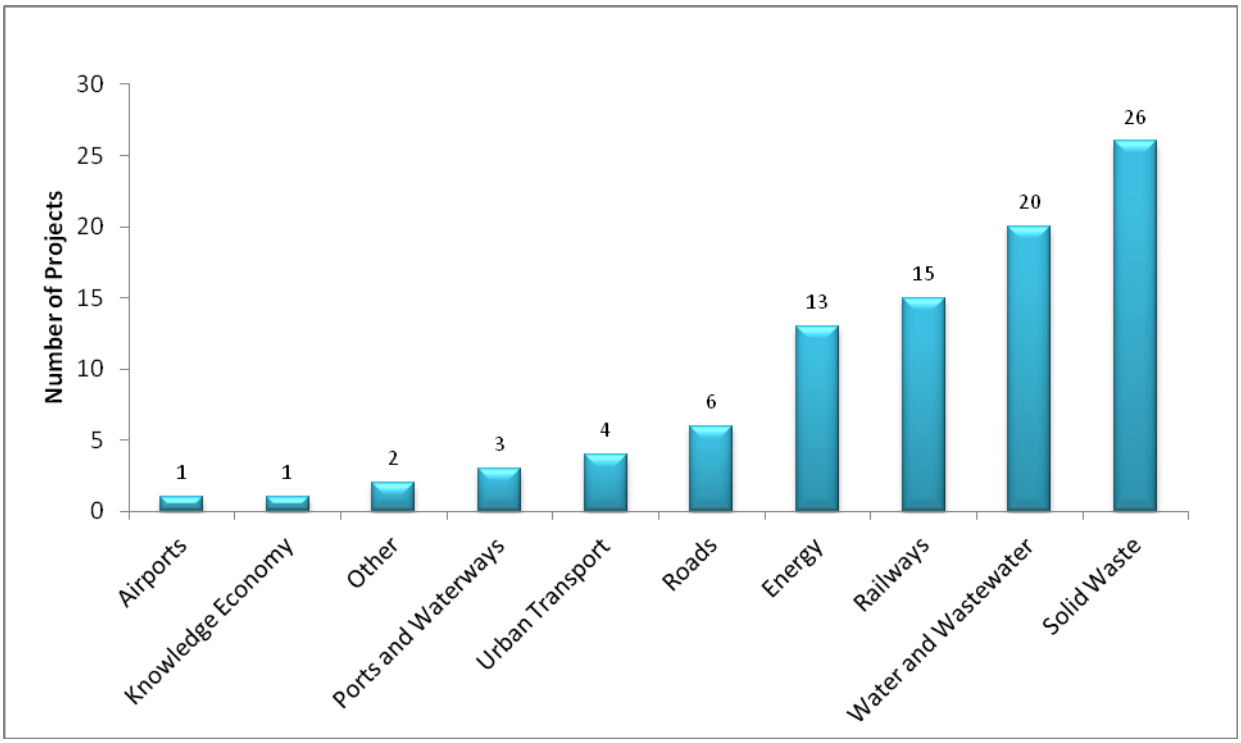
- Other – The two projects falling into this category were largely cultural in nature; one relating to the development of a sports facility in Poland and the second relating to restoration and rehabilitation of the historic fortifications in Malta.
- Airports – One project fell under the Airports sector and this concerned the modernisation of airport infrastructure. The project did not qualify as a major one, in the sense of the Structural Funds regulations.
- Energy – Thirteen non-major projects fell under the Energy sector. These projects were particularly varied; ranging from modernising electricity distribution and boilers at power stations to reducing energy consumption in the buildings. Some projects sought to expand current facilities, including the expansion of an underground gas storage facility and power network to accept electricity from renewable sources in Poland. Other projects involved the completion of a gas pipeline and the construction of a small hydro-power plant. Two projects involved the restructuring and renovating urban heating systems to meet energy efficiency targets.
- Ports and Waterways – Of the 3 non major port and waterways projects, two related to the development and implementation of a traffic management and information system. The final project was concerned with a waste collection system for a port area.
- Solid Waste - The majority of solid waste projects were concerned with the development of integrated or regional waste management systems. The remaining projects were in relation to rehabilitation of contaminated sites and closure of landfills.
- Water and Wastewater - Of the 20 non major projects in the Water and Wastewater sector, the majority were concerned with modernising wastewater treatment plants thereby ensuring compliance with the Urban Wastewater Directive (EC/97/271). A number of other projects were concerned with flood prevention, extension of wetlands and extending wastewater and water supply services.
- Urban Transport – The four non major projects which fell into the Urban Transport sector were quite varied; ranging from street reconstruction in Latvia to the modernization and development of the Prague subway and traffic control system for the city in Czech Republic. Two Polish projects were concerned with the construction of a tram infrastructure, the installation and implementation of a Traffic Management System (TMS) and the upgrade of carriageways and interchanges.

Figure B2.16: Number of Non-Major JASPERS-Assisted Projects by Member State



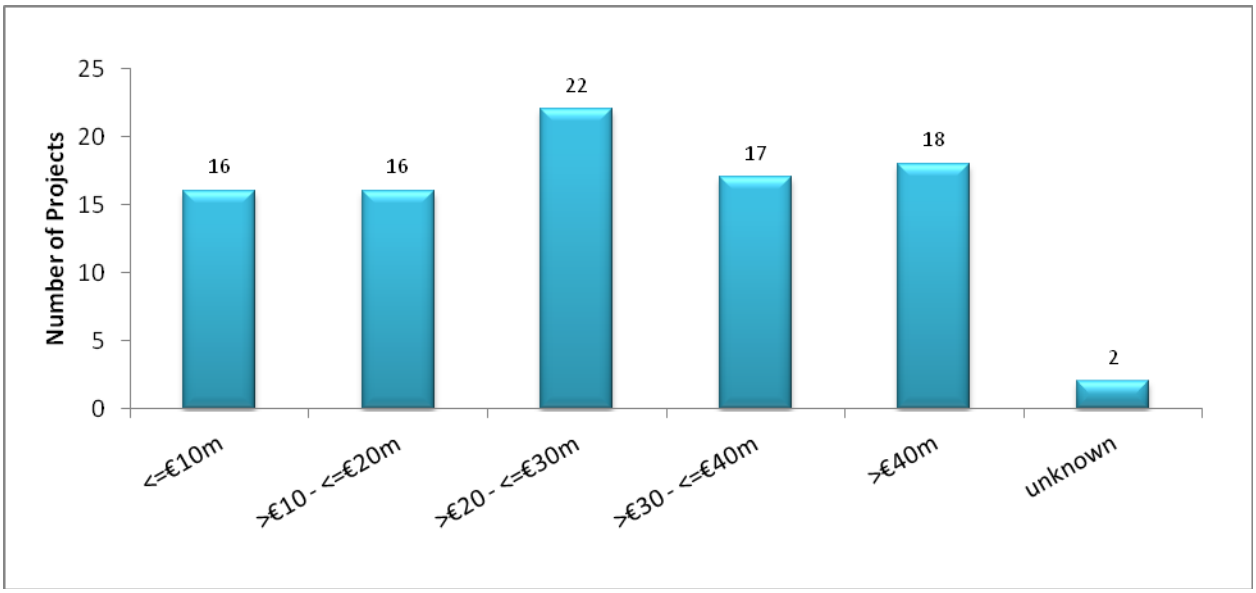
Member State	Number of Projects	% Projects
Bulgaria	12	13.2
Cyprus	4	4.4
Czech Republic	5	5.5
Estonia	2	2.2
Hungary	2	2.2
Latvia	1	1.1
Lithuania	1	1.1
Malta	4	4.4
Poland	19	20.9
Romania	26	28.6
Slovakia	5	5.5
Slovenia	10	11.0
All Member States	91	100.0

Figure B2.17: Number of Non-Major JASPERS-Assisted Projects by Sector



Sector	Number of Projects	% Projects
Airports	1	1.1
Energy	13	14.3
Knowledge Economy	1	1.1
Other	2	2.2
Ports and Waterways	3	3.3
Railways	15	16.5
Roads	6	6.6
Solid Waste	26	28.6
Urban Transport	4	4.4
Water and Wastewater	20	22.0
All	91	100.0

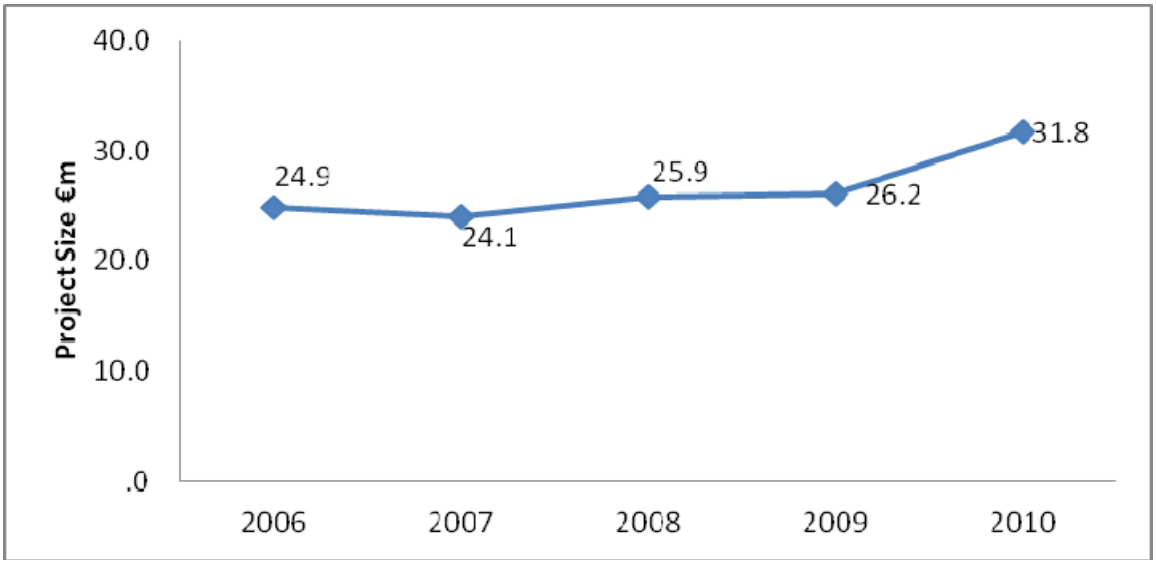
Figure B2.18: Number of Non-Major JASPERS-Assisted Projects by Size



Size	Number of Projects	% Projects
<=€10m	16	17.6
>€10 - <=€20m	16	17.6
>€20 - <=€30m	22	24.2
>€30 - <=€40m	17	18.7
>€40m	18	19.8
Not specified	2	2.2
All	91	100.0

Average Project Size	€m
All non-major JASPERS Projects	25.9

Figure B2.19 Average Size of Non Major JASPERS-Assisted Projects by JASPERS Start Year

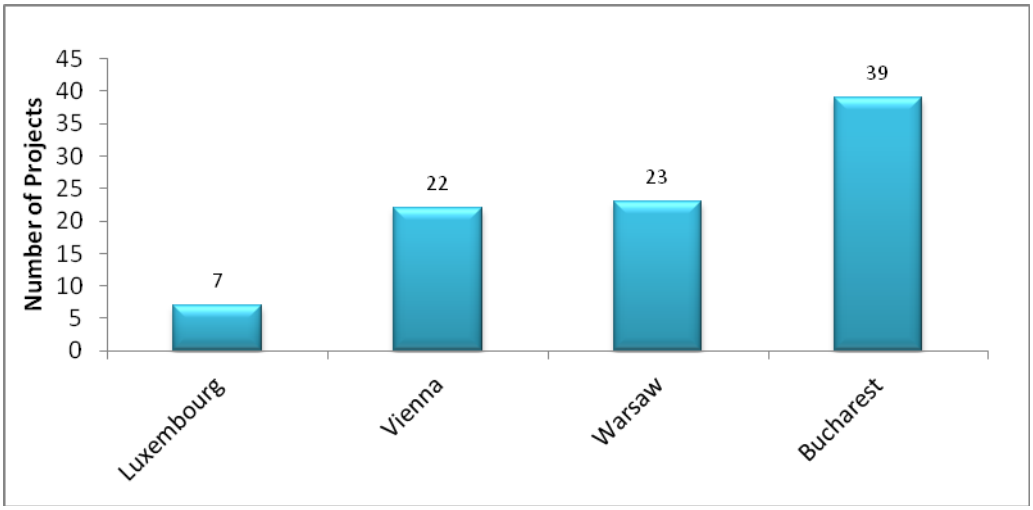


JASPERS Start Year	Number of Projects	% Projects	Average Size
2006	3	3.4	24.9
2007	25	28.1	24.1
2008	16	18.0	25.9
2009	37	41.6	26.2
2010	8	9.0	31.8
2011 (part of)	-	-	-
Total	89	100.0	25.9

Table B2.3: Average Size of Non-Major JASPERS-Assisted Projects by Sector

Sector	Average Project Size €m
Airports	17.0
Energy	27.3
Knowledge Economy	25.0
Other	28.2
Ports and Waterways	4.7
Railways	21.6
Roads	28.9
Solid Waste	21.3
Urban Transport	33.3
Water and Wastewater	34.6
Total	30.0

Figure B2.20: Number of Non-Major JASPERS-Assisted Projects by JASPERS Office



Size	Number of Projects	% Projects
Bucharest	39	42.9
Luxembourg	7	7.7
Vienna	22	24.2
Warsaw	23	25.3
All	91	100.0

Figure B2.21: Number of Non-Major JASPERS-Assisted Projects by Member State and by Sector

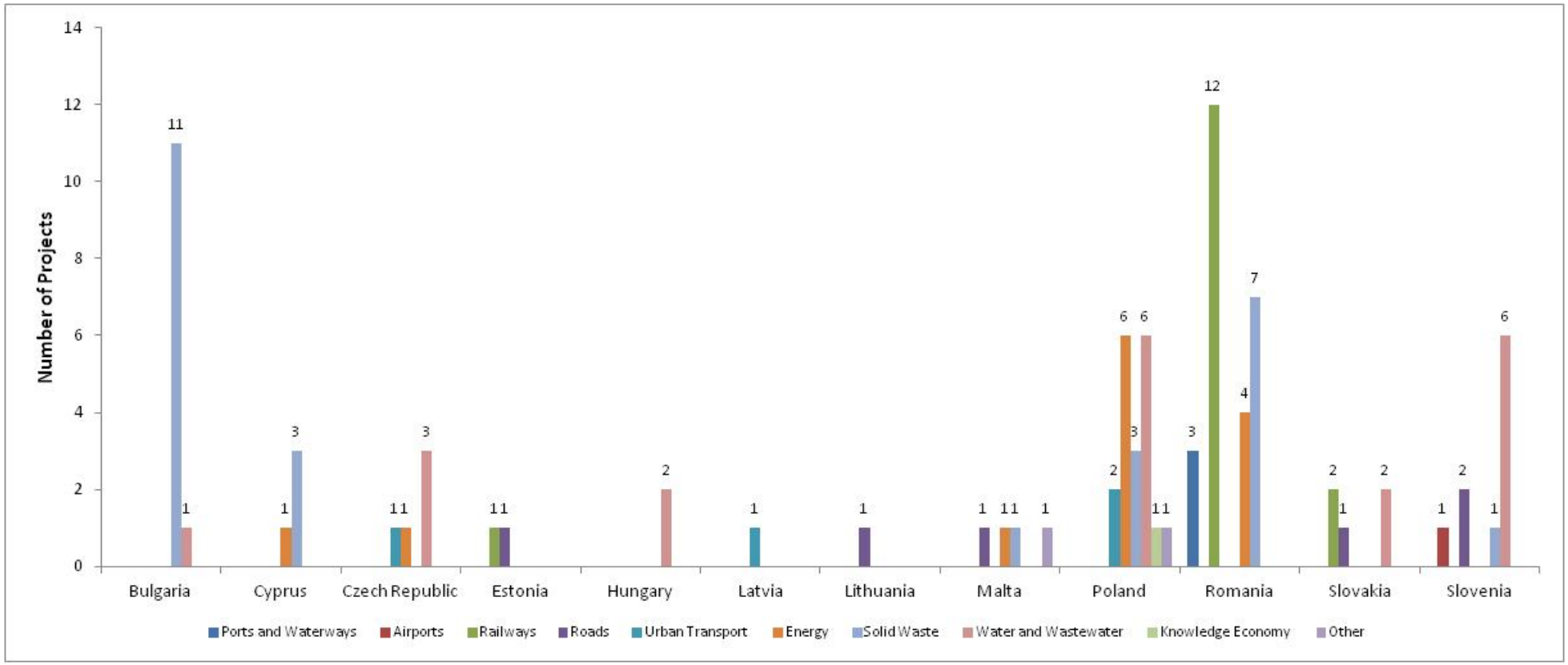
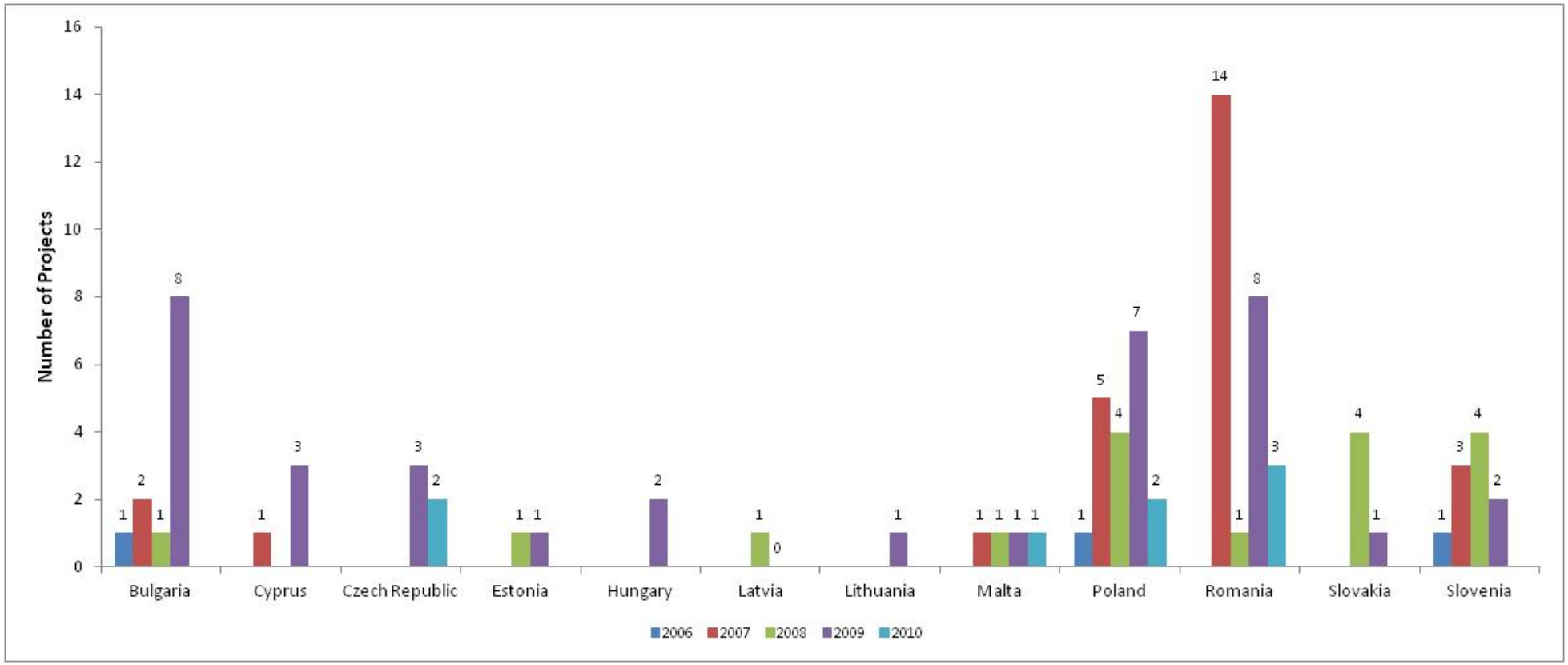


Figure B2.22: Number of Non-Major JASPERS-Assisted Projects by Member State and Year JASPERS Assistance Commenced



B2.4: JASPERS Horizontal Assignments

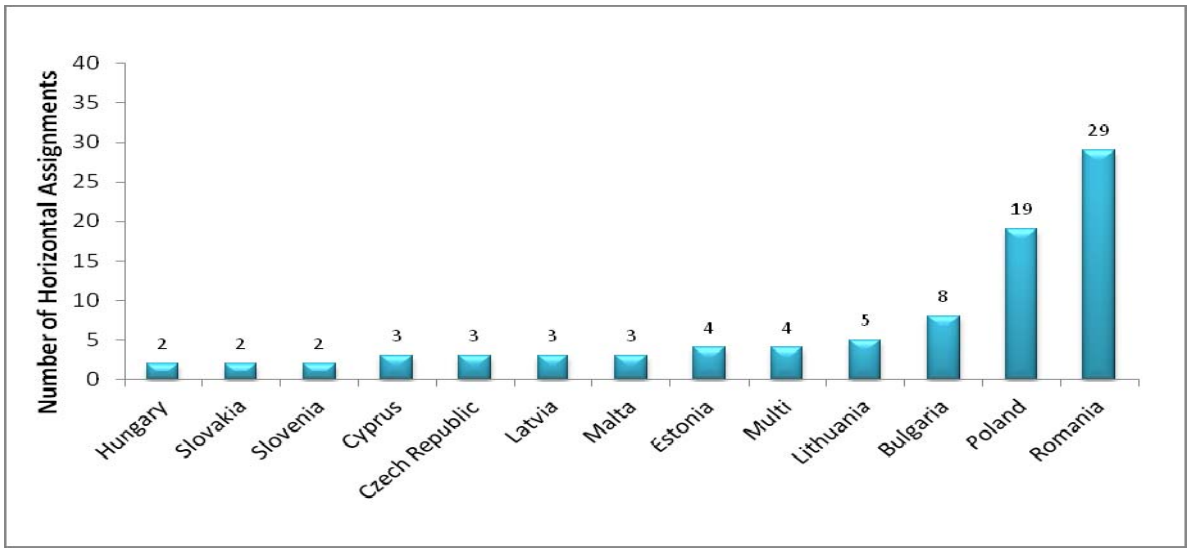
In total, 87 JASPERS horizontal assignments were completed by JASPERS over the period 2005 – June 2011. All 12 Member States participated in JASPERS horizontal assignments over this period. Across the Member States, one-third of all horizontal assignments were Romanian, while 22 per cent were Polish. See Figure B2.22.

Thirty-seven per cent of all horizontal assignments belonged to the 'Other' project sector category. One in five horizontal assignments related to the 'Water and Wastewater' sector, while 17 per cent were 'Energy' related. Just one per cent of all horizontal assignments belonged to the 'Roads' sector. See Figure B2.23.

Across the four JASPERS offices, the largest proportion of horizontal assignments were supported through the Bucharest office (42.9 per cent); a further 37 per cent were supported through the Warsaw JASPERS office. The Vienna and Luxembourg offices each supported 10 per cent of horizontal assignments. See Figure B2.24.

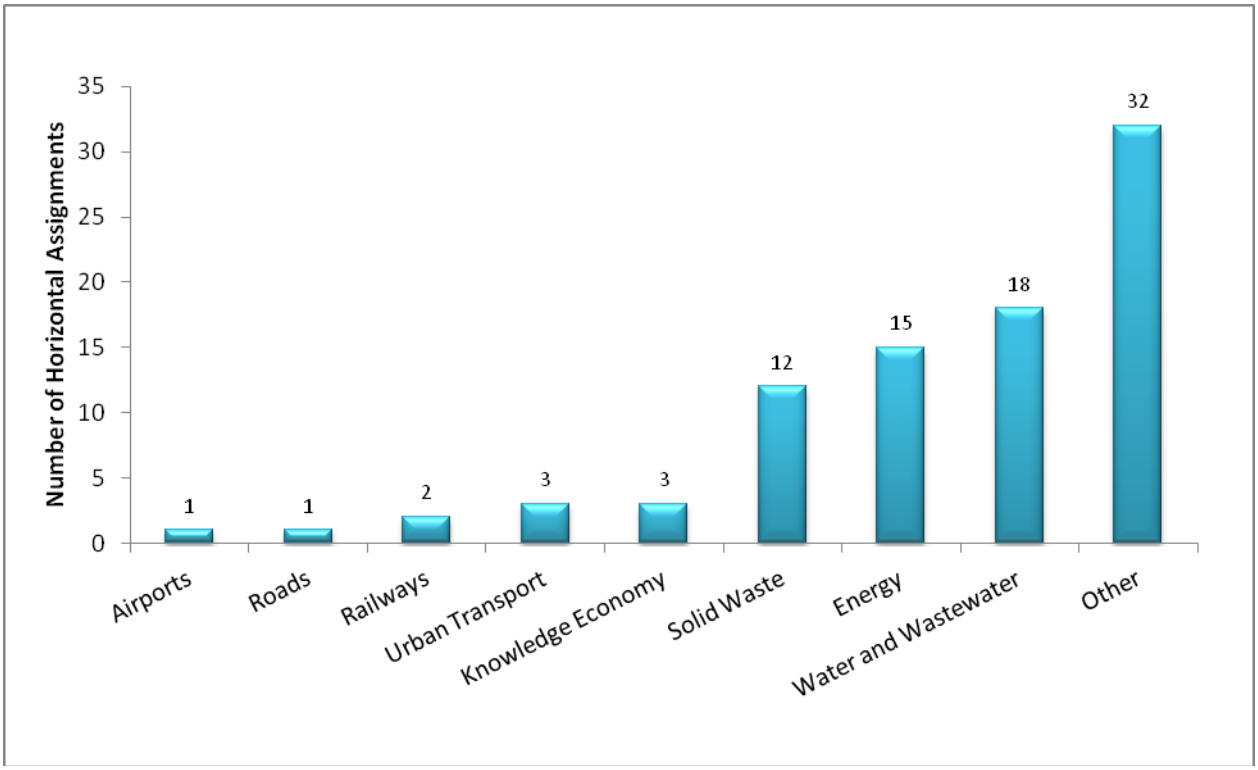
In Romania, the distribution of horizontal assignments by sector was as follows: 'Energy' (31 per cent); 'Other' (31 per cent); 'Solid Waste' (17 per cent); 'Water and Wastewater' (17 per cent); and 'Knowledge Economy' (3 per cent). The Polish JASPERS horizontal assignments were distributed as follows: 'Water and Wastewater' (26 per cent); 'Solid Waste' (21 per cent); 'Other' (21 per cent); 'Energy' (16 per cent); and 'Knowledge Economy' (5 per cent). Figure B2.25.

Figure B2.22: Number of JASPERS Horizontal Assignments by Member State



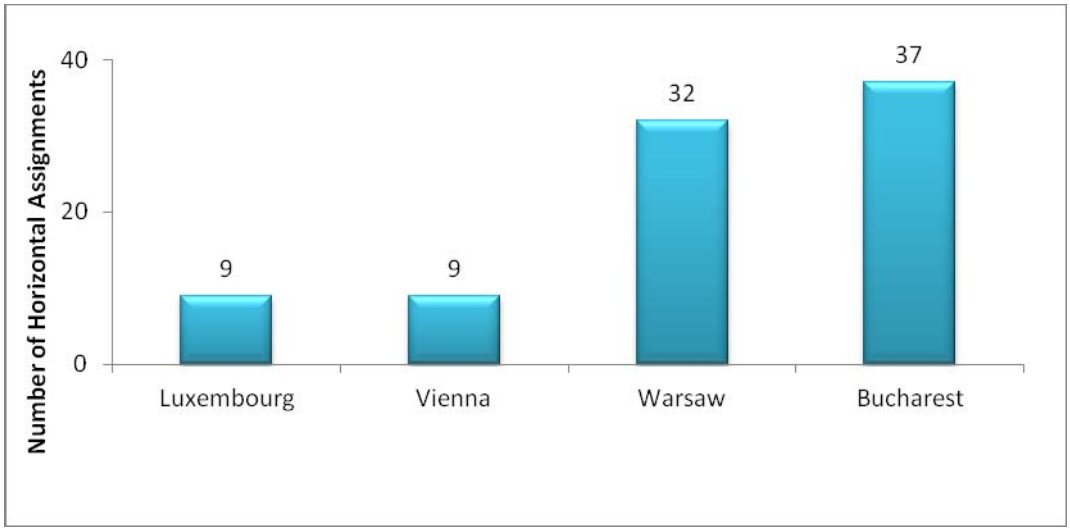
Member State	Number of Assignments	% Assignments
Bulgaria	8	9.2
Cyprus	3	3.4
Czech Republic	3	3.4
Estonia	4	4.6
Hungary	2	2.3
Latvia	3	3.4
Lithuania	5	5.7
Malta	3	3.4
Multi	4	4.6
Poland	19	21.8
Romania	29	33.3
Slovakia	2	2.3
Slovenia	2	2.3
Total	87	100.0

Figure B2.23: Number of JASPERS Horizontal Assignments by Sector



Sector	Number of Assignments	% Assignments
Airports	1	1.1
Roads	1	1.1
Railways	2	2.3
Urban Transport	3	3.4
Knowledge Economy	3	3.4
Solid Waste	12	13.8
Energy	15	17.2
Water and Wastewater	18	20.7
Other	32	36.8
Total	87	100.0

Figure B2.24: Number of JASPERS Horizontal Assignments by JASPERS Office



Sector	Number of Assignments	% Assignments
Bucharest	37	42.5
Luxembourg	9	10.3
Vienna	9	10.3
Warsaw	32	36.8
Total	87	100.0

Figure B2.25: Number of JASPERS Horizontal Assignments by Member States and by Sector

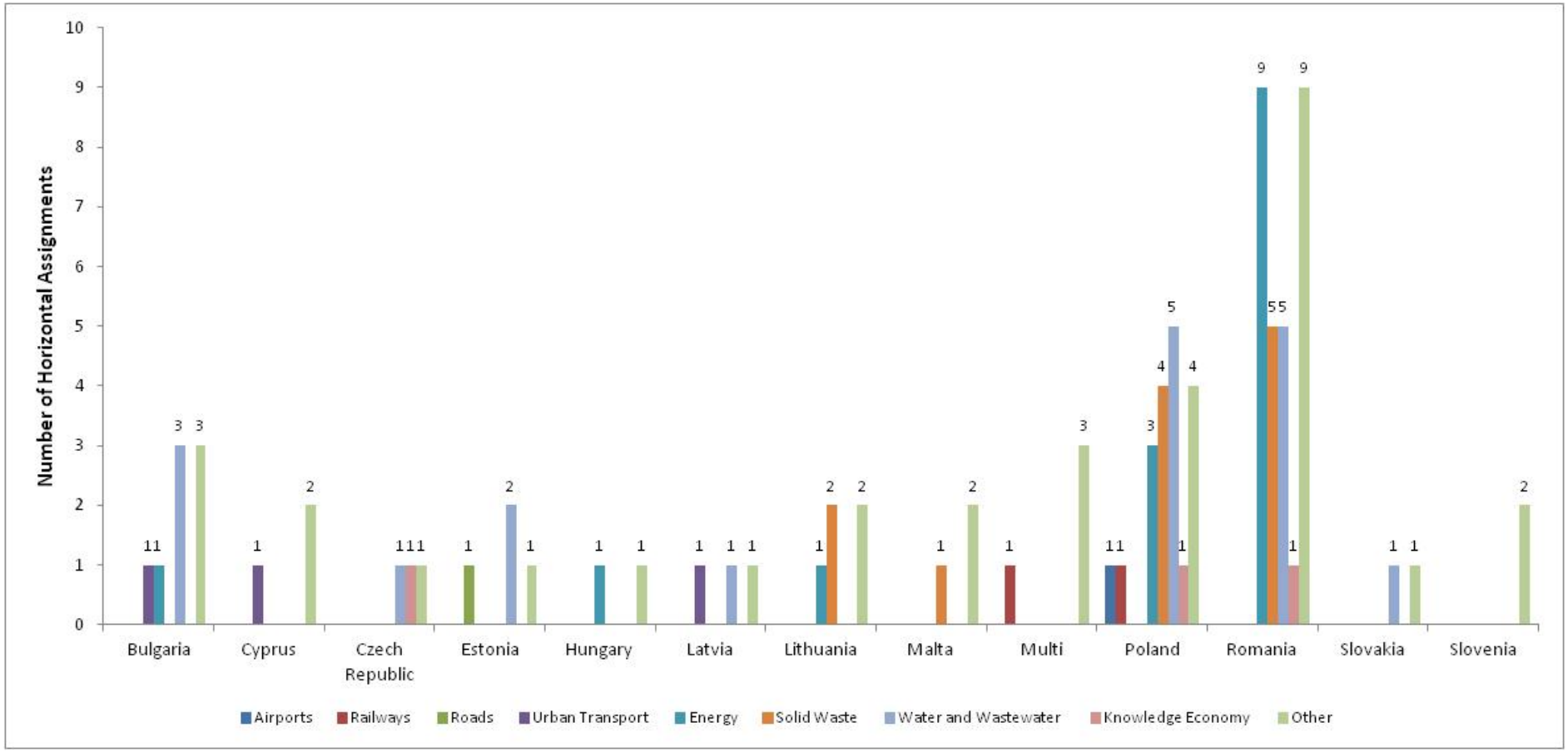
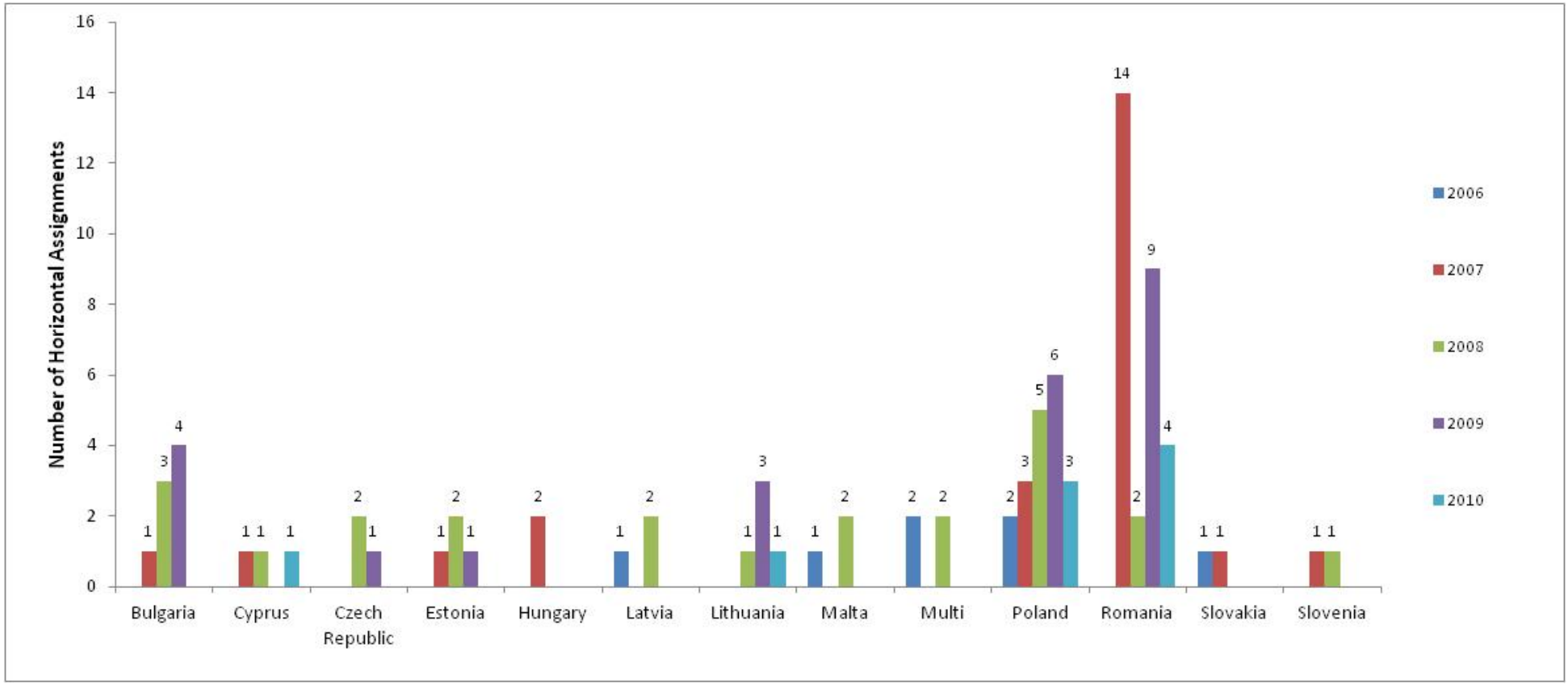


Figure B2.26: Number of JASPERS Horizontal Assignments by Member State and Year JASPERS Assistance Commenced



B2.5 Summary

As an introductory step to the analysis of Timeline durations, the projects/assignments in each Timeline dataset were profiled according to a number of criteria, where appropriate, including Member State, project sector, size, and JASPERS office. In addition, cross-classifications of the datasets provided more detailed data such as the number of projects in each sector in each Member State; as well as the number of projects in each Member State by the year the project was submitted to the DG for Regional Policy for approval.

In total, 11 Member States submitted major projects to the DG for Regional Policy that had been in receipt of JASPERS assistance. On the basis of the profiling it was found that together Poland and Romania accounted for half of all major JASPERS-assisted projects, with the Czech Republic and Hungary accounting for a further 14 per cent each. One in three major JASPERS-assisted projects were 'Water and Wastewater' projects; while 'Roads' accounted for one quarter of all projects. The average size of all major JASPERS-assisted projects was €185m. The average size of major JASPERS-assisted projects has declined since 2007. The largest major JASPERS-assisted projects were 'Roads' (€344m) projects, while the smallest were 'Solid Waste' (€61.7m) projects.

Just five Member States submitted major non-JASPERS-assisted projects to the DG for Regional Policy for funding approval. Of these, 62 per cent arose in Poland. An additional 12 per cent were located in Romania. One-quarter of major non-JASPERS-assisted projects belonged to the 'Roads' sector and a further 22 per cent belonged to the 'Water and Wastewater' sector. The average size of major non-JASPERS-assisted projects was €112.3m. The largest major JASPERS-assisted projects were 'Roads' (€189m) projects, while the smallest were 'Solid Waste' (€48.1m) projects

All 12 Member States have non-major projects that were JASPERS-assisted. In total, there were 91 non-major JASPERS-assisted projects completed by JASPERS over the period covered by the evaluation. Of these, Romania and Poland accounted for 29 and 21 per cent respectively. An additional 13 and 11 per cent were located in Bulgaria and Slovenia respectively. Approximately 29 per cent of non-major JASPERS-assisted projects belonged to the 'Solid Waste' sector, while 'Water and Wastewater' accounted for 22 per cent of all projects. The average size of all non-major JASPERS-assisted projects was €26m. One-quarter of all non-major JASPERS-assisted projects cost between €20m and €30m; 20 per cent of projects had costs exceeding €40m. Half of all 12 Member States had non-major JASPERS-assisted projects belonging to at most two sectors. In Romania, approximately half (46 per cent) of all the country's 26 non-major JASPERS-assisted projects were 'Railways' projects. Across all Member States, 32 per cent of all non-major JASPERS-assisted projects commenced their JASPERS assistance in 2007 or earlier.

All 12 new Member States participated in JASPERS horizontal assignments. Across the Member States, one-third of all horizontal assignments were Romanian, while 22 per cent were Polish. Approximately half of all JASPERS horizontal assignments in Romania commenced in 2007. Thirty-seven per cent of all horizontal assignments belonged to the 'Other' project sector category; one in five related to the 'Water and Wastewater' sector; while 17 per cent were 'Energy' related. Just one per cent of all horizontal assignments belonged to the 'Roads' sector. Across the four JASPERS offices, the largest proportion of horizontal assignments were supported through the Bucharest office (42.5 per cent), a further 37 per cent were supported through the Warsaw JASPERS office.

Table B2.4 provides a summary of the projects and assignments forming each Timeline by some of the key criteria discussed above.

Table B2.4: Summary of Profiling Date by Project/Assignment Type

	Major JASPERS-assisted	Major non-JASPERS-assisted	Non-major JASPERS	JASPERS Horizontal Assignments
No Projects/Assignments	231	82	91	87
No Member States	11	5	12	12
Top 3 Member States (% projects/assignment)	Poland (24.2 %) Romania (24.2%) Czech Rep (13.9%)	Poland (75.6 %) Romania (12.2 %) (Estonia 7.3 %)	Romania (28.6 %) Poland (20.9%) (Bulgaria 13.2 %)	Romania (33.3 %) Poland (21.8%) (Bulgaria 9.2 %)
No Sectors	10	9	10	9
Top 3 Sectors (% projects/assignment)	Water and Wastewater (32%) Roads (20.8%) Railways (13.9%)	Roads (25.6 %) Water and Wastewater (22%) Other (14.6%)	Solid Waste (28.6%) Water and Wastewater (22%) Railways (16.5%)	Other (36.8%) Water and Wastewater (20.7%) Energy (17.2%)
Average Project Size	185.3	112.3	30.0	na
Largest Project Sector (value of project €m)	Roads (€344.0)	Roads (€189.5)	Water and Wastewater (€34.6)	na
Smallest Project Sector (value of project €m)	Solid Waste (€61.7)	Solid Waste (€48.1)	Ports and Waterways (€4.7)	na
% of Projects Supported through JASPERS office	Bucharest (29.0%) Vienna (38.1%) Warsaw (31.6 %) Luxembourg (1.3 %)	na	Bucharest (42.9%) Vienna (24.2%) Warsaw (25.3 %) Luxembourg (7.7 %)	Bucharest (42.5%) Vienna (10.3%) Warsaw (36.8 %) Luxembourg (10.3 %)

B3: Analysis of Average Timeline Durations

Having profiled the projects/assignments forming each Timeline type in Section B2, a detailed analysis is now presented of the average durations forming each Timeline. The average durations relating to major projects in receipt of JASPERS assistance are set out in Section B3.1. The corresponding durations for major non-JASPERS-assisted projects; non-major JASPERS-assisted projects; and JASPERS-assisted horizontal assignments are set out in Sections B3.2, B3.3 and B3.4 respectively.

B3.1: Timelines for Major Projects in Receipt of JASPERS Assistance

Summary Statistics of Timeline Durations

Table B3.1 presents summary statistics of the durations forming the Timeline for major projects in receipt of JASPERS assistance. The analysis of average durations is restricted to the 168 major JASPERS-assisted projects that were in receipt of a the DG for Regional Policy Decision, as complete project planning, and the DG for Regional Policy Decision durations were available for these projects. The analysis of average JASPERS durations however relates to the 231 major JASPERS-assisted projects, as complete JASPERS duration data was available for these projects.

As can be seen from Table B3.1, the average project planning duration was 734 days. The part of the project planning duration taken up by the JASPERS duration was 489 days. Once submitted for funding approval, the average DG for Regional Policy Decision duration was 272 days. The DG for Regional Policy Decision duration can be broken down into a period during which the DG for Regional Policy actively assessed the applications (the *DG for Regional Policy Active Decision duration)*, which averaged 150 days; and the period during which the applications were interrupted (the *Interruption duration*), which averaged 120 days.

Table B3.1: Summary of Timeline Duration Statistics - Major Projects in Receipt of JASPERS Assistance

	Average number of days*	Median	Std Deviation	Co-efficient of Variation	n (Number of Projects)**
Project Planning Duration	734	697	329	0.45	168
JASPERS Duration	489	429	320	0.65	231
DG for Regional Policy Decision Duration	272	270	153	0.56	168
Interruption Duration	120	102	119	0.99	167
DG for Regional Policy Active Decision Duration	150	126	75	0.50	167

***** It should be noted that the 'JASPERS duration' and the 'DG for Regional Policy Decision duration' do not total the 'Project Planning Duration' owing to (1) the differing number of projects in the respective datasets; and because (2) the duration between the 'JASPERS Duration' and the 'DG for Regional Policy Decision Duration' (namely the 'post JASPERS pre-the DG for Regional Policy submission Duration') which forms part of the overall 'Project Planning Duration' is not included in the Table. The 'post JASPERS pre-the DG for Regional Policy submission Duration' has been excluded because some 'JASPERS Durations' overlap with 'the DG for Regional Policy Decision Durations' resulting in negative values for this duration. In a similar fashion the '*Interruption Duration*' and the '*the DG for Regional Policy Active Decision Duration*' do not total the 'DG for Regional Policy Decision Duration' owing to the differing number of projects for which there are data in the respective datasets.

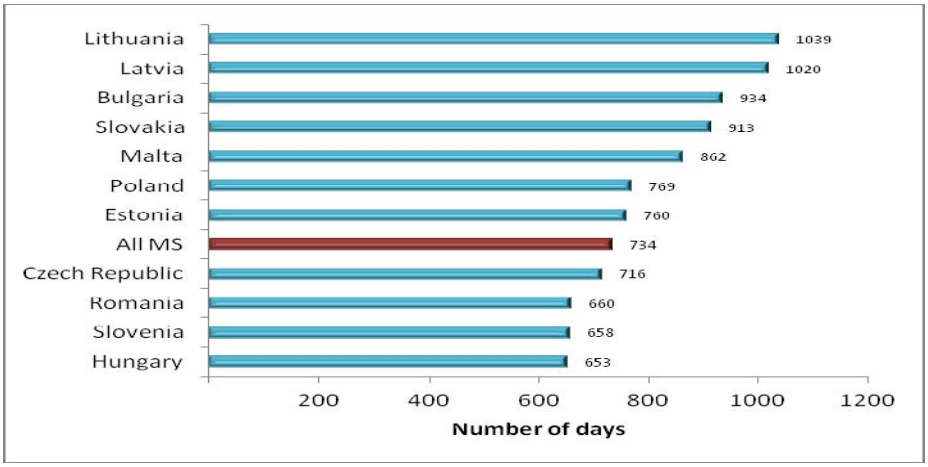
** For the purposes of analysing the ‘Project Planning Duration’; the ‘DG for Regional Policy Decision Duration’; the ‘Interruption Duration’; and the ‘DG for Regional Policy Active Decision Duration’ the analysis is based on projects that have received a the DG for Regional Policy funding Decision. When analysing the ‘JASPERS duration’ the dataset of all 231 JASPERS-assisted major projects, including those that have not received a DG for Regional Policy Decision as yet, is used.

Figures B3.1 – B3.6 profile the average Timeline durations for major projects in receipt of JASPERS assistance by Member State; project size; project sector; as well as by the JASPERS office which supported the project applications. When profiled according to these criteria, in many cases the number of projects is too small for valid inferences to be drawn. Average Timeline durations based on small numbers of projects may not reflect the reality of the underlying Timeline durations. Accordingly, the tables presented include details of the number of projects analysed. This permits the reader to interpret the representativeness of the estimated durations.

Timelines for Major Projects in Receipt of JASPERS Assistance by Member State

There was significant variation across Member States in terms of average project planning durations. However, in the Member States which submitted significant (in excess of ten) numbers of major JASPERS-assisted projects, namely Poland, Romania, Hungary and the Czech Republic, the average project planning durations were plus or minus 11 per cent of the average project planning duration in all Member States (734 days). See Figure B3.1.

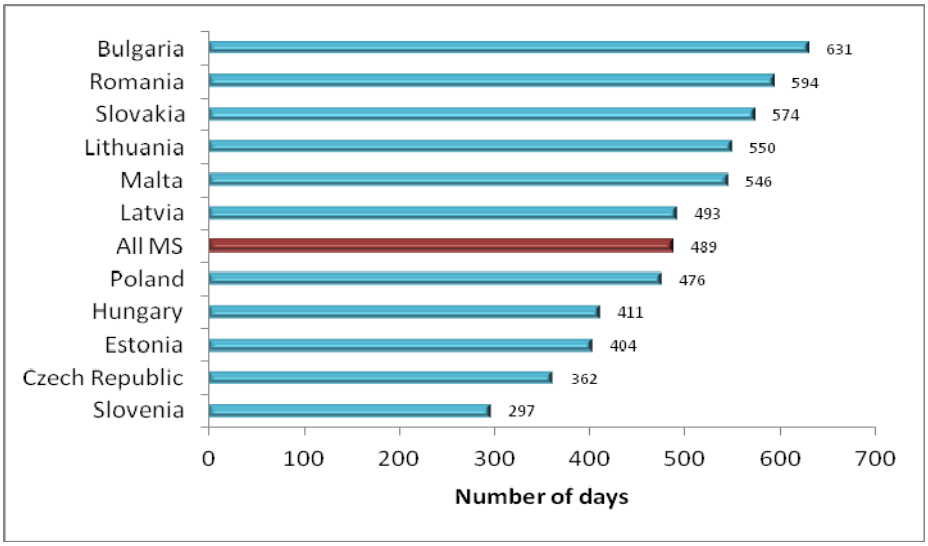
Figure B3.1: Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Member State



Member State	Average Project Planning Duration (days)	Number of Projects (n)
Bulgaria	934	9
Czech Republic	716	22
Estonia	760	4
Hungary	653	23
Latvia	1020	6
Lithuania	1039	2
Malta	862	3
Poland	769	32
Romania	660	53
Slovakia	913	6
Slovenia	658	8
All Member States	734	168

Across the Member States which submitted significant (in excess of ten) numbers of major JASPERS-assisted projects, the longest JASPERS duration (in Romania) was 594 days, 22 per cent above the average in all Member States (489 days); while the shortest JASPERS duration (in the Czech Republic) was 362 days, 42 per cent below the average. Major JASPERS-assisted projects in Poland experienced JASPERS durations close to the average. See Figure B3.2.

Figure B3.2: Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by Member State

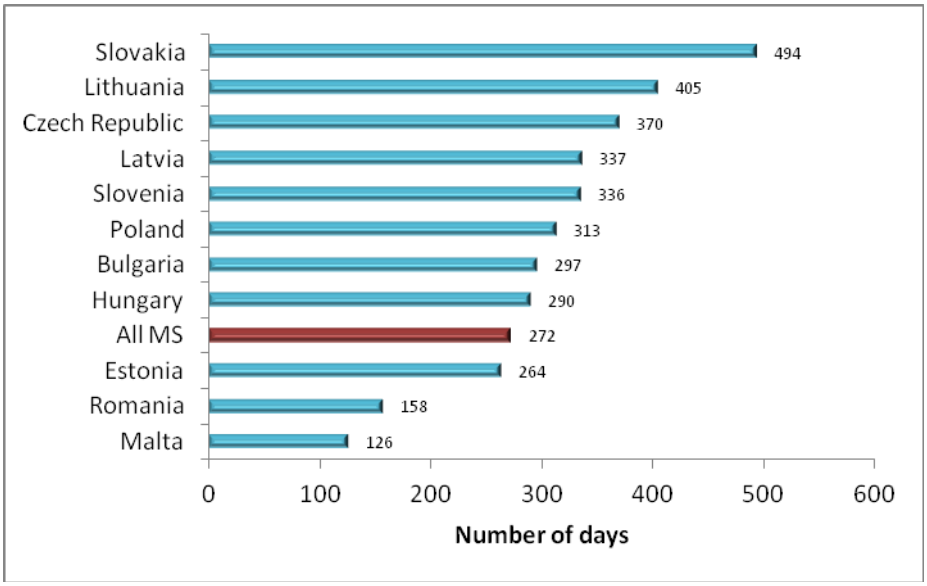


Member State	Average JASPERS Duration (days)	Number of Projects (n)
Bulgaria	631	10
Czech Republic	362	32
Estonia	404	6
Hungary	411	31
Latvia	493	7
Lithuania	550	5
Malta	546	4
Poland	476	56
Romania	594	56
Slovakia	574	16
Slovenia	297	8
All Member States	489	231

Across all Member States the average the DG for Regional Policy Decision duration was 272 days. There was significant variation across Member States in terms of average DG for Regional Policy Decision durations. Among the Member States which had in excess of ten major JASPERS-assisted projects, the longest DG for Regional Policy Decision duration was experienced in the Czech Republic (370 days). The average JASPERS duration in the Czech Republic was 36 per cent greater than the average across all Member States. The shortest DG for Regional Policy Decision duration across the Member States which submitted in excess of ten projects was experienced in Romania (158 days), 42 per cent below the average.

The split of the DG for Regional Policy Decision duration by its active and interrupted constituent parts, for each Member State, is also set out in Figure B3.3. Across all Member States, 55 per cent of the DG for Regional Policy Decision duration was active. In Romania, over 70 per cent of the DG for Regional Policy Decision duration was active. In Poland, the split between active and interruption durations was similar to the split in Romania.

Figure B3.3: Major JASPERS-Assisted Projects: Average DG for Regional Policy Decision Duration (Days) by Member State



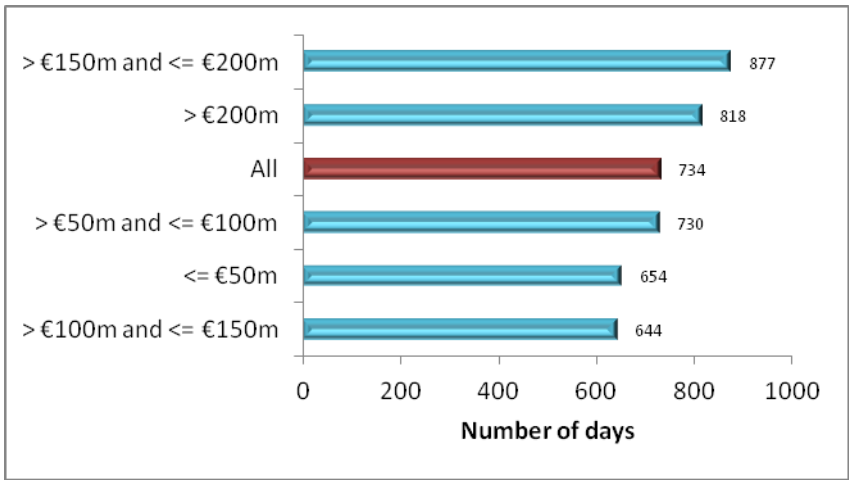
Member State	Average DG for Regional Policy Duration (days) (n)	% Active (n)	% Interrupted (n)
Bulgaria	297 (9)	43.8 (9)	56.2 (9)
Czech Republic	370 (22)	44.1 (22)	55.9 (22)
Estonia	264 (4)	87.1 (4)	12.9 (4)
Hungary	290 (23)	41.7 (23)	58.3 (23)
Latvia	337 (6)	51.6 (6)	48.4 (6)
Lithuania	405 (2)	63.7 (2)	36.5 (2)
Malta	126 (3)	93.7 (3)	6.3 (3)
Poland	313 (32)	67.7 (32)	32.3 (32)
Romania	158 (53)	70.9 (53)	29.1 (53)
Slovakia	494 (6)	39.5 (6)	60.5 (6)
Slovenia	336 (8)	37.2 (7)	54.2 (7)
All Member States	272 (168)	55.1 (167)	44.1 (167)

Timelines for Major Projects in Receipt of JASPERS Assistance by Project Size

Larger major JASPERS-assisted projects (with project costs of between €150m and €200m) experienced the longest project planning durations. Projects with project costs totalling between €100m and €150m experienced the shortest project planning durations.

The longest average project planning duration was 20 per cent above the average across all projects, while the shortest project planning duration was 12 per cent below the average.

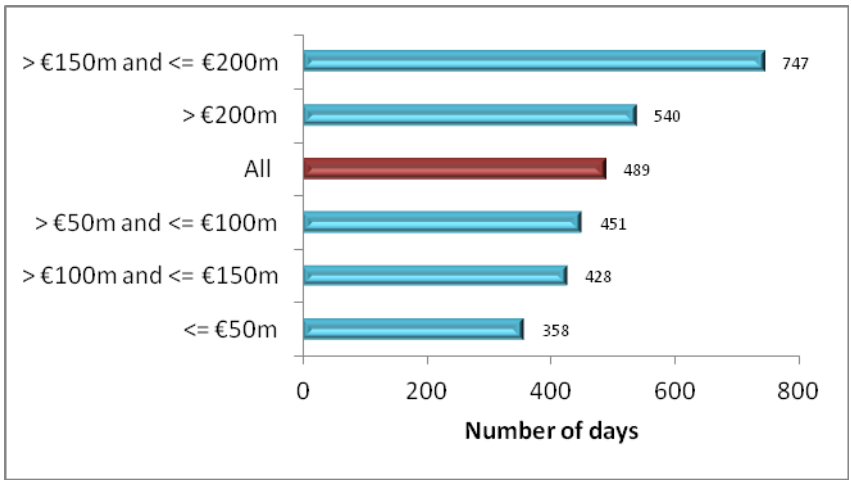
Figure B3.4: Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Project Size



Project Size	Average Project Planning Duration (days)	Number of Projects (n)
<= €50m	654	21
> €50m and <=€100m	730	57
> €100m and <=€150m	644	38
> €150m and <=€200m	877	16
> €200m	818	36
All Member States	734	168

Larger major JASPERS-assisted projects (with project costs of between €150 - €200m) also experienced the longest JASPERS durations, 53 per cent above the average JASPERS duration across all projects. See Figure B3.5.

Figure B3.5: Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by Project Size

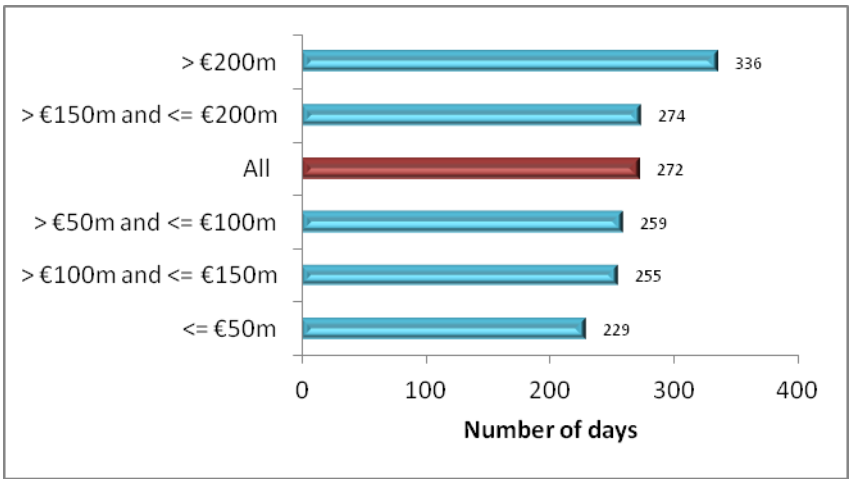


Project Size	Average JASPERS Duration (days)	Number of Projects (n)
<= €50m	358	24
> €50m and <=€100m	451	80
> €100m and <=€150m	428	47
> €150m and <=€200m	747	24
> €200m	540	56
All	489	231

There is a broad relationship between project size and the DG for Regional Policy Decision duration. Projects with costs in excess of €150m experienced above average the DG for Regional Policy Decision durations; while projects with costs less than €150m experienced below average the DG for Regional Policy Decision durations. Projects with project costs of between €150 and €200m experienced the DG for Regional Policy Decision durations close to the average. See Figure B3.6.

Project size does not appear to be an influencing factor in terms of the split of the DG for Regional Policy Decision duration period into its active and interrupted component parts.

Figure B3.6: Major JASPERS-Assisted Projects: Average DG for Regional Policy Decision Duration (Days) by Project Size

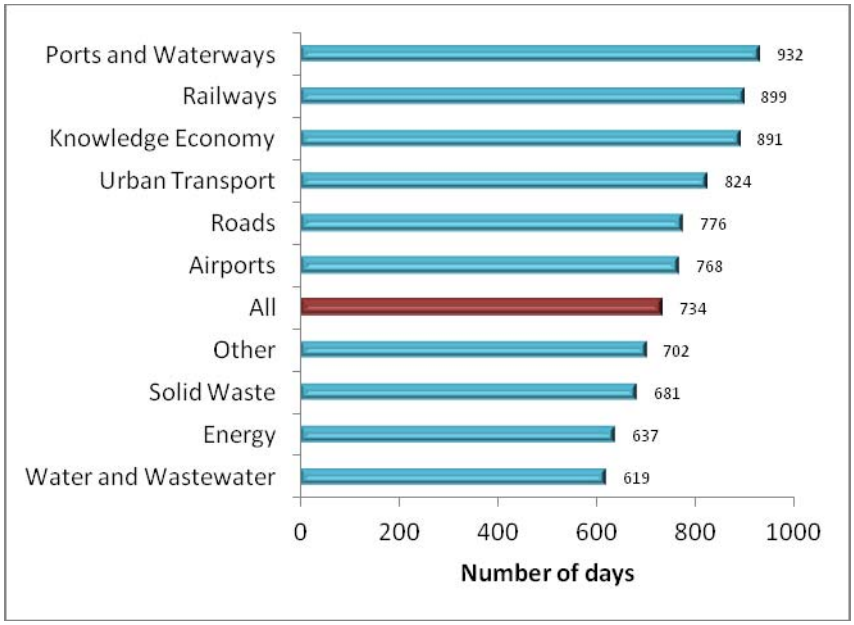


Project Size	Average DG for Regional Policy Decision Duration (Days) (n)	% Active (n)	% Interrupted (n)
<= €50m	229 (21)	42.8 (21)	57.2 (21)
> €50m and <=€100m	259 (57)	42.1 (57)	57.9 (57)
> €100m and <=€150m	255 (38)	44.7 (37)	52.2 (37)
> €150m and <=€200m	274 (16)	47.8 (16)	52.2 (16)
> €200m	336 (36)	45.5 (36)	54.5 (36)
All	272 (168)	44.1 (167)	55.1 (167)

Timelines for Major Projects in Receipt of JASPERS Assistance by Project Sector

The average project planning duration for major JASPERS-assisted projects has varied by project sector as set out in Figure B3.7. Among the sectors for which there were in excess of ten projects, the ‘Railways’ sector experienced the longest average project planning durations (899 days). The average project planning duration for ‘Railway’ projects was 21 per cent greater than the average across all projects. Among the sectors for which there were in excess of ten projects, the shortest average project planning duration was experienced in the ‘Water and Wastewater’ sector (619 days), which was 16 per cent below the average.

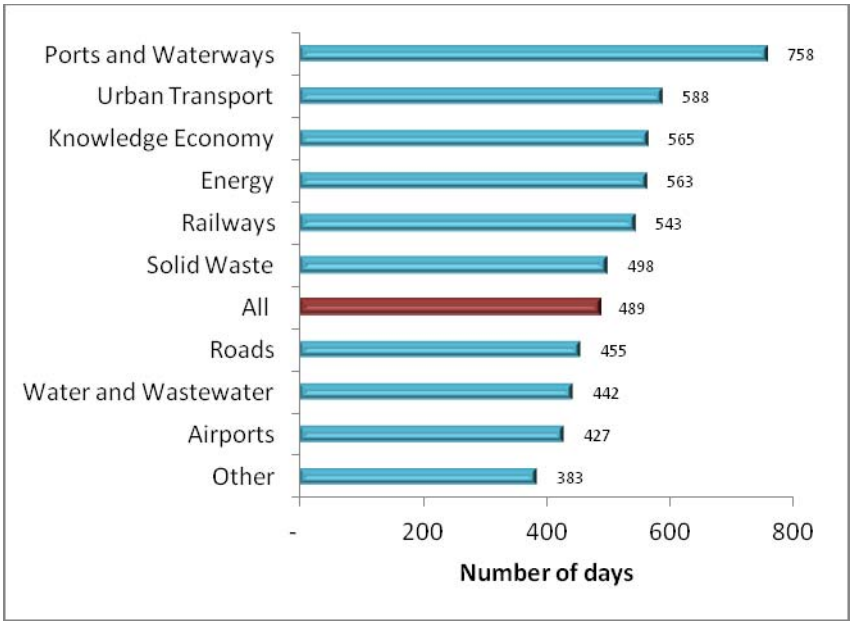
Figure B3.7: Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Project Sector



Project Sector	Average Project Planning Duration (days)	Number of Projects (n)
Airports	768	1
Energy	637	6
Knowledge Economy	891	14
Other	702	5
Ports and Waterways	932	1
Railways	899	21
Roads	776	34
Solid Waste	681	17
Urban Transport	824	11
Water and Wastewater	619	58
All	734	168

Among the sectors for which there were significant numbers of projects (in excess of ten), the longest average JASPERS duration was experienced in the 'Urban Transport' sector (588 days), where the average duration was 20 per cent greater than the average. There was less deviation from the average with respect to the shortest JASPERS durations (for sectors with more than ten projects); while the shortest average JASPERS duration was just 10 per cent below the average across all projects (Water and Wastewater sector).

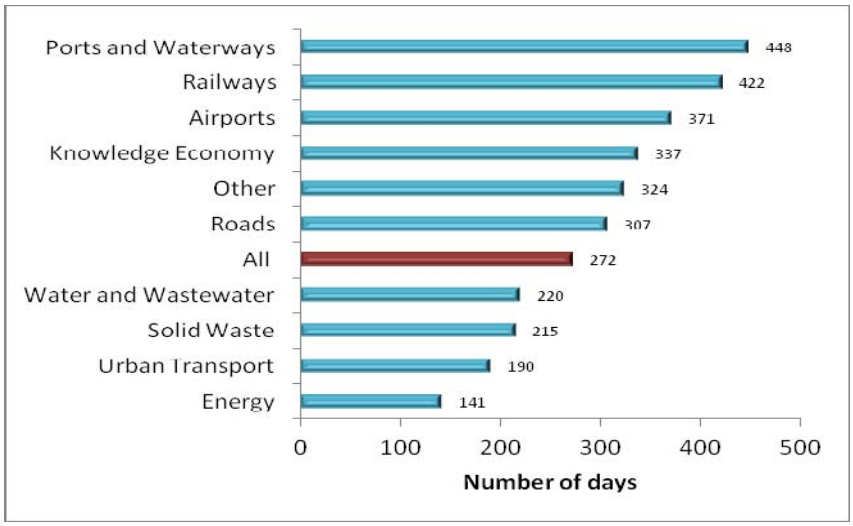
Figure B3.8: Major JASPERS-Assisted Projects: Average JASPERS Durations (Days) by Project Sector



Project Sector	Average JASPERS Duration (days)	No Projects (n)
Airports	427	1
Energy	563	15
Knowledge Economy	565	16
Other	383	10
Ports and Waterways	758	2
Railways	543	32
Roads	455	48
Solid Waste	498	18
Urban Transport	588	15
Water and Wastewater	442	74
All	489	231

Among the sectors for which there were in excess of ten projects, the 'Railways' sector experienced the longest DG for Regional Policy Decision durations (422 days, or 55 per cent above the average), followed by the 'Knowledge Economy' sector (337 days, or 24 per cent above the average). 'Urban Transport' projects experienced the shortest the DG for Regional Policy Decision durations (190 days), 30 per cent below the average across all projects.

Figure B3.9: Major JASPERS-Assisted Projects: Average DG for Regional Policy Decision Duration (Days) by Project Sector

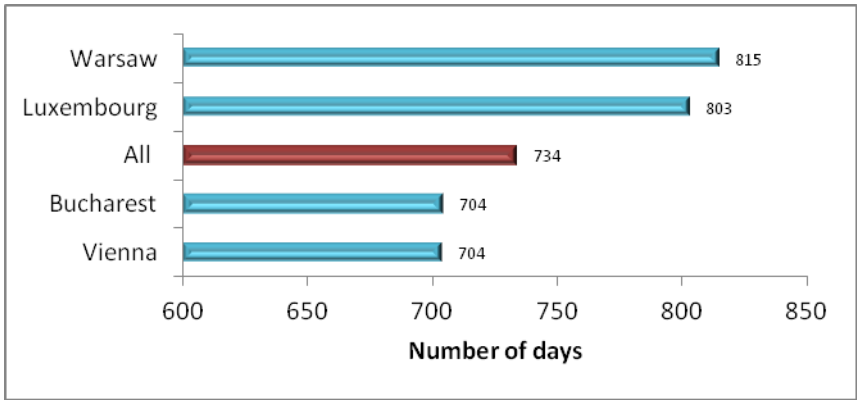


Project Sector	Average DG for Regional Policy Decision Duration (Days) (n)	% Active (n)	% Interrupted (n)
Airports	371 (1)	57.7 (1)	42.3 (1)
Energy	141 (6)	31.9 (6)	68.1 (6)
Knowledge Economy	337 (14)	41.2 (13)	54.3 (13)
Other	324 (5)	28.1 (5)	71.6 (5)
Ports and Waterways	448 (1)	64.1 (1)	35.9 (1)
Railways	422 (21)	55.7 (21)	44.3 (21)
Roads	307 (34)	40.1 (34)	59.9 (34)
Solid Waste	215 (17)	48.8 (17)	51.2 (17)
Urban Transport	190 (11)	40.5 (11)	59.5 (11)
Water and Wastewater	220 (58)	41.8 (58)	58.2 (58)
All	272 (168)	44.1 (167)	55.1 (167)

Timelines for Major Projects in Receipt of JASPERS Assistance by JASPERS Office

There was relatively little variation in terms of average project planning durations across the four JASPERS offices, as illustrated in Figure B3.10. In the JASPERS office that experienced the longest average project planning durations, namely Warsaw, the average project planning duration was 815 days, or 11 per cent above the average. In both the Bucharest and the Vienna offices the average project planning duration was 704 days, which was 4 per cent below the average.

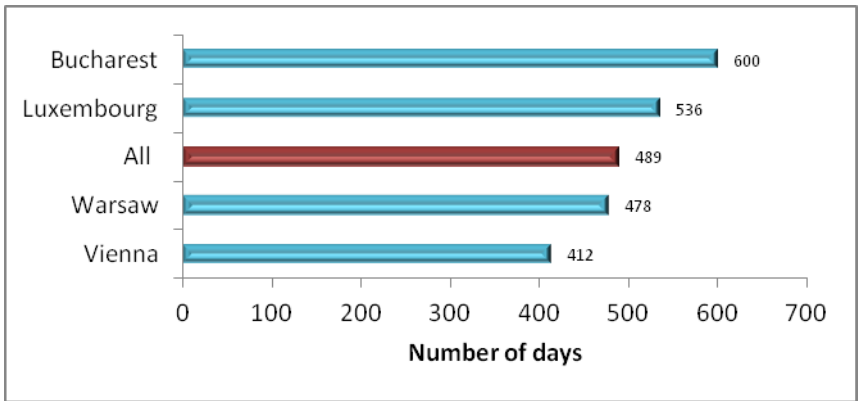
Figure B3.10: Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by JASPERS Office



JASPERS Office	Average Project Planning Duration (Days)	No Projects (n)
Bucharest	704	63
Luxembourg	803	3
Vienna	704	59
Warsaw	815	43
All	734	168

There was greater variation across the four JASPERS offices with respect to the JASPERS durations. In the Bucharest office, the average JASPERS duration totalled 600 days, which exceeded the average across all projects by 46 per cent. The shortest average JASPERS duration, which was experienced in the Vienna office, at 412 days, was 16 per cent below the average. See Figure B3.11.

Figure B3.11: Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by JASPERS Office

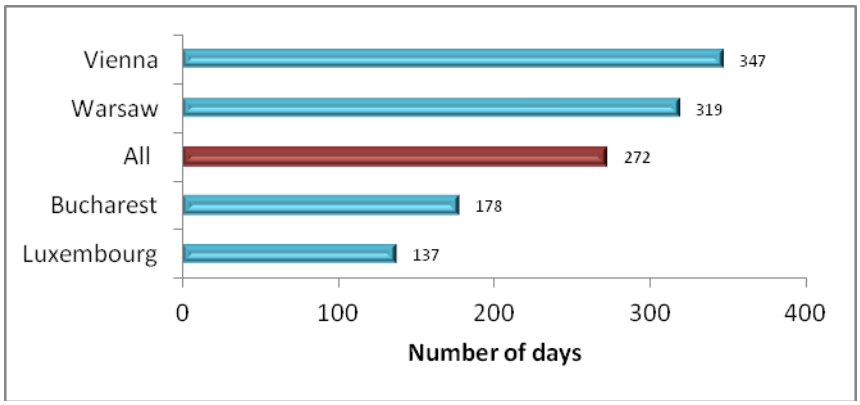


JASPERS Office	Average JASPERS Duration (days)	Number of Projects (n)
Bucharest	600	67
Luxembourg	536	3
Vienna	412	88
Warsaw	478	73
All	489	231

Projects supported through the Vienna JASPERS office, which experienced the shortest JASPERS durations, experienced the longest the DG for Regional Policy Decision durations (347 days).

Projects supported through the Bucharest JASPERS office, which experienced the longest average JASPERS durations, experienced the shortest the DG for Regional Policy Decision durations (178 days). See Figure B3.12.

Figure B3.12: Major JASPERS-Assisted Projects: Average DG Decision Durations (Days) by JASPERS Office



JASPERS Office	Average DG REGIO Decision Duration (Days) (n)	% Active (n)	% Interrupted (n)
Bucharest	178 (63)	35.4 (63)	64.6 (63)
Luxembourg	137 (3)	24.1 (3)	75.9 (3)
Vienna	347 (59)	57.1 (58)	41.8 (58)
Warsaw	319 (43)	33.2 (43)	66.8 (43)
All	272 (168)	44.1 (167)	55.1 (167)

B3.2: Timelines for Major Projects Not in Receipt of JASPERS Assistance

Summary Statistics of Timeline Durations

Table B3.2 sets out summary Timeline duration statistics for major projects that did not avail of JASPERS assistance. The analysis is restricted to the 40 major non-JASPERS projects that were in receipt of a DG for Regional Policy Decision, as complete Timeline durations were available for these projects.

The average DG for Regional Policy Decision duration was 386 days. The average DG for Regional Policy active Decision duration for non-JASPERS-assisted projects was 192 days, while the average interruption duration was 194 days.

Table B3.2: Summary of Timeline Duration Statistics - Major Projects not in Receipt of JASPERS Assistance

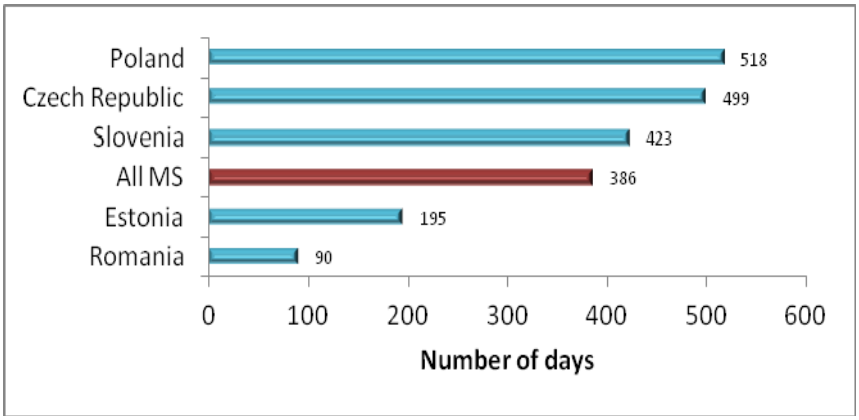
	Average Number of Days	Median	Std Deviation	Co-efficient of Variation	N (Number of Projects)
DG for Regional Policy Decision duration	386	362	245	0.63	40
Interruption duration	194	175	166	0.85	40
DG for Regional Policy Active Decision duration	192	164	109	0.57	40

Figures B3.13, B3.14 and B3.15 profile the average Timeline durations experienced by non-JASPERS-assisted projects by Member State; project size; as well as by project sector. As noted in Section B3.1, when the projects are profiled in this manner, in many cases the number of projects is extremely small, and as such, valid inferences cannot be realistically drawn in relation to average Timeline durations.

Timelines for Major Projects not in Receipt of JASPERS Assistance by Member State

Across the Member States which submitted major non-JASPERS-assisted projects, Poland is the only Member State to have submitted in excess of ten projects. In Poland, the average the DG for Regional Policy Decision duration was 518 days, 34 per cent above the average for all projects.

Figure B3.13: Major Non-JASPERS-Assisted Projects: Average DG for Regional Policy Decision Duration (Days) by Member State

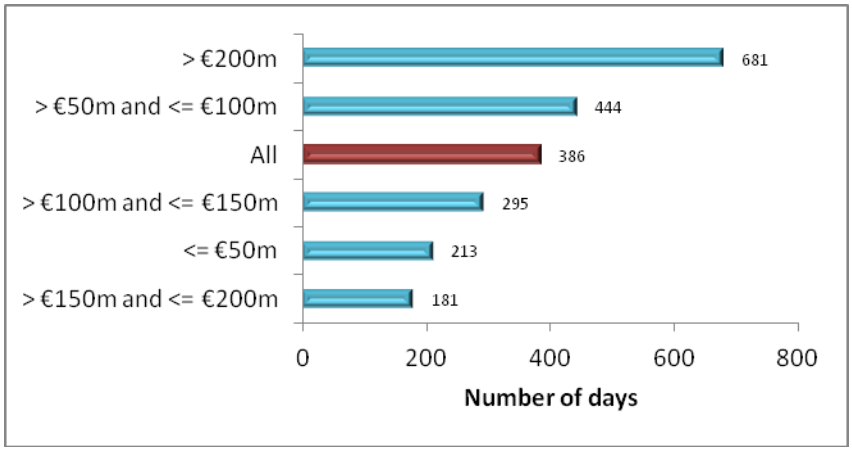


Member State	Average DG for Regional Policy Decision Duration (elapsed days) (n)	% Active (n)	% Interrupted (n)
Czech Republic	499 (3)	76.2 (3)	23.8 (3)
Estonia	195 (4)	41.0 (4)	59.5 (4)
Poland	518 (23)	50.6 (23)	49.4 (23)
Romania	90 (9)	6.7 (9)	92.2 (9)
Slovenia	423 (1)	49.9 (1)	50.1 (1)
All Member States	386 (40)	50.3 (40)	49.7 (40)

Timelines for Major Projects not in Receipt of JASPERS Assistance by Project Size

There was just one project size category for which there were in excess of ten major non-JASPERS-assisted projects, namely the €50 - €100m category. Projects in this category experienced DG for Regional Policy Decision durations of 444 days, 15 per cent above the average.

Figure B3.14: Major Non-JASPERS-Assisted Projects: Average DG for Regional Policy Decision Duration (Days) by Project Size

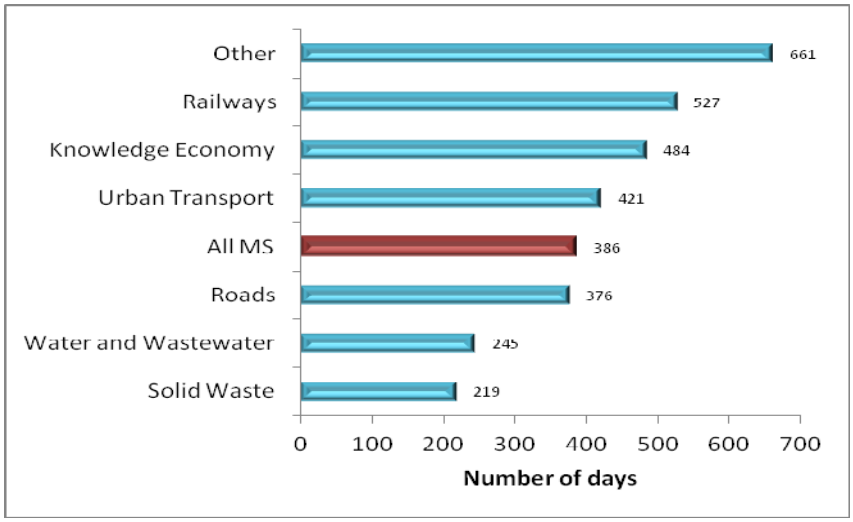


Project Size	Average DG for Regional Policy Decision Duration (Days)	% Active (n)	% Interrupted (n)
<= €50m	213 (6)	36.5 (6)	63.5 (6)
> €50m and <=€100m	444 (24)	51.8 (24)	48.2 (24)
> €100m and <=€150m	295 (6)	54.2 (6)	45.8 (6)
> €150m and <=€2□0m	181 (2)	33.5 (2)	66.5 (2)
> €200m	681 (2)	50.7 (2)	49.3 (2)
All	386 (40)	50.3 (40)	49.7 (40)

Timelines for Major Projects not in Receipt of JASPERS Assistance by Project Sector

Owing to the relatively large number of sectors, and the relatively small number of non-JASPERS-assisted projects, the number of major non-JASPERS-assisted projects in each sector is particularly small. In the 'Water and Wastewater' sector (the only sector with in excess of ten projects) the average the DG for Regional Policy Decision duration was 245 days, which was 33 per cent less than the average.

Figure B3.15: Major Non-JASPERS-Assisted Projects: Average the DG for Regional Policy Decision Duration (Days) by Sector



Project Sector	Average the DG for Regional Policy Decision Duration (Days)	% Active (n)	% Interrupted (n)
Knowledge Economy	484 (3)	31.6 (3)	68.6 (3)
Other	661 (6)	50.4 (6)	49.6 (6)
Railways	527 (6)	60.0 (6)	40.2 (6)
Roads	376 (5)	55.6 (5)	44.4 (5)
Solid Waste	219 (4)	42.5 (4)	57.5 (4)
Urban Transport	421 (1)	45.1 (1)	54.9 (1)
Water and Wastewater	245 (15)	49.0 (15)	51.0 (15)
All Member States	386 (40)	50.3 (40)	49.7 (40)

B3.3: Timelines for Non-Major Projects in Receipt of JASPERS Assistance

In order to analyse the average project planning durations for non-major JASPERS-assisted projects, Member States were contacted and asked to provide details of the dates when the relevant authorities in each Member State decided to proceed with the project. On the basis of the dates provided, this Section provides an overview of the average Timeline durations for non-major JASPERS projects.

Table B3.3 sets out summary statistics of the average project planning duration as well as the JASPERS duration for non-major JASPERS-assisted projects. The average project planning duration for all non-major JASPERS-assisted projects was 760 days; while the average JASPERS duration was 594 days.

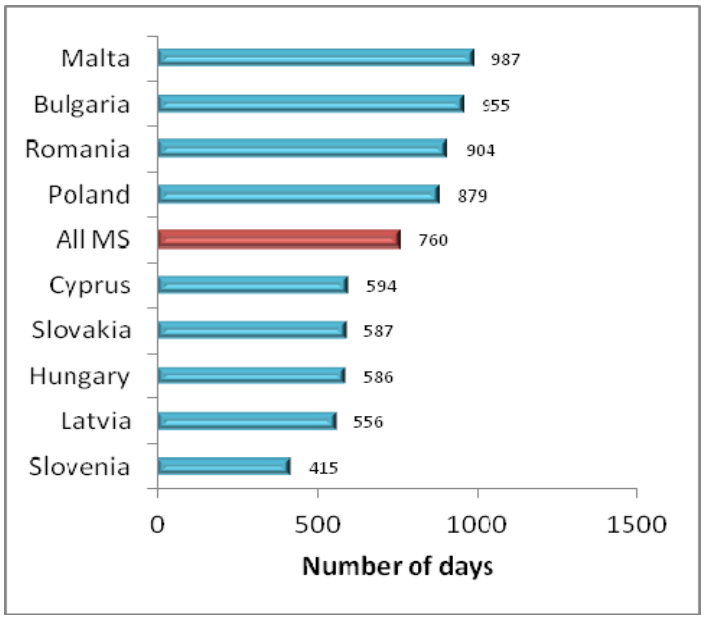
Table B3.3: Summary of Timeline Duration Statistics for Non-Major Projects in Receipt of JASPERS Assistance

	Average Number of Days	Median	Std Deviation	Co-efficient of Variation	n (Number of Projects)
Project Planning Duration	760	694	432	0.57	57
JASPERS Duration	594	447	407	0.69	91

Figures B3.16 – B3.23 profile the average project planning durations and JASPERS durations for non-major JASPERS-assisted projects by Member State; project size, project sector; and also by JASPERS office. As with the other Timeline datasets, when profiled according to these criteria in many cases the number of projects is too small for valid inferences to be drawn.

In both Romania and Poland, the only Member States which had in excess of ten non-major JASPERS-assisted projects, the average project planning durations were 19 per cent and 16 per cent above the average respectively.

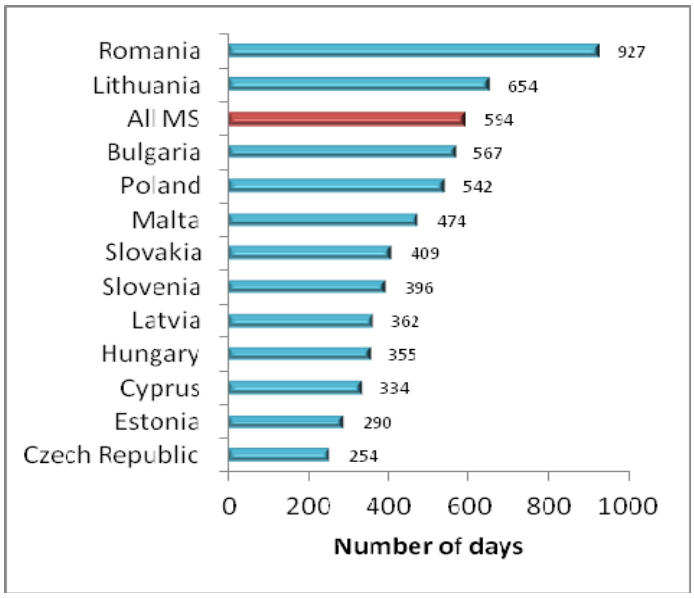
Figure B3.16: Non-Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Member State



Member State	Average Project Planning Duration (days)	No of Projects
Bulgaria	955	2
Cyprus	594	2
Czech Republic	249	3
Estonia	-	-
Hungary	586	1
Latvia	556	1
Lithuania	-	-
Malta	987	2
Poland	879	15
Romania	904	20
Slovakia	587	3
Slovenia	415	8
All MS	760	57

Across the Member States which had in excess of ten non-major JASPERS-assisted projects, both Bulgaria and Poland experienced JASPERS durations below the average, 5 per cent and 9 per cent respectively. In Romania, the average JASPERS duration was 927 days, which was 333 days (or 36 per cent) above the average

Figure B3.17: Non-Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by Member State

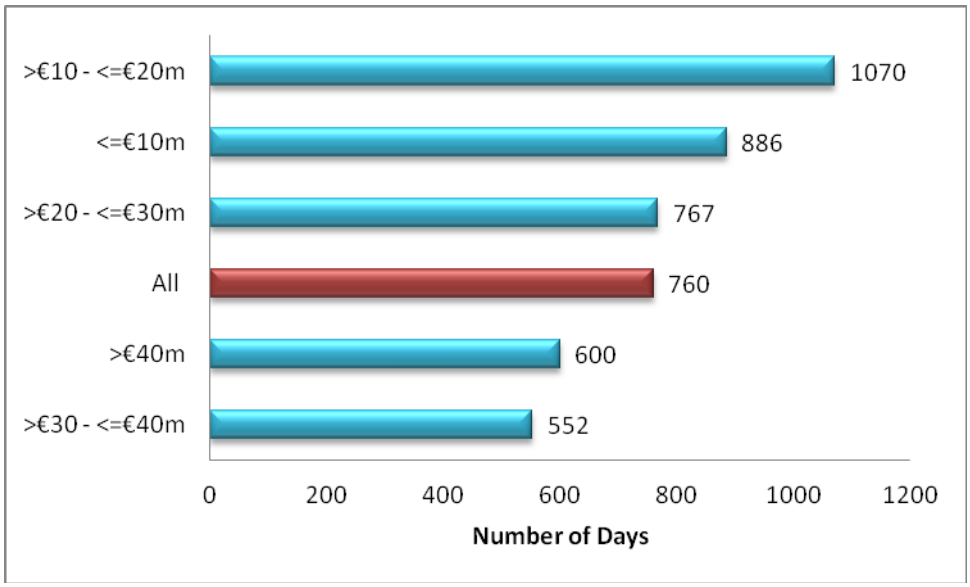


Member State	Average JASPERS Duration (days)	No of Projects
Bulgaria	567	12
Cyprus	334	4
Czech Republic	254	5
Estonia	290	2
Hungary	355	2
Latvia	362	1
Lithuania	654	1
Malta	474	4
Poland	542	19
Romania	927	26
Slovakia	409	5
Slovenia	396	10
All MS	594	91

Smaller non- major JASPERS-assisted projects (with project costs up to €20m) experienced the longest project planning durations. Projects with project costs totalling between €30m and €40m experienced the shortest project planning durations.

The longest average project planning duration was 41 per cent above the average across all projects, while the shortest project planning duration was 37 per cent below the average.

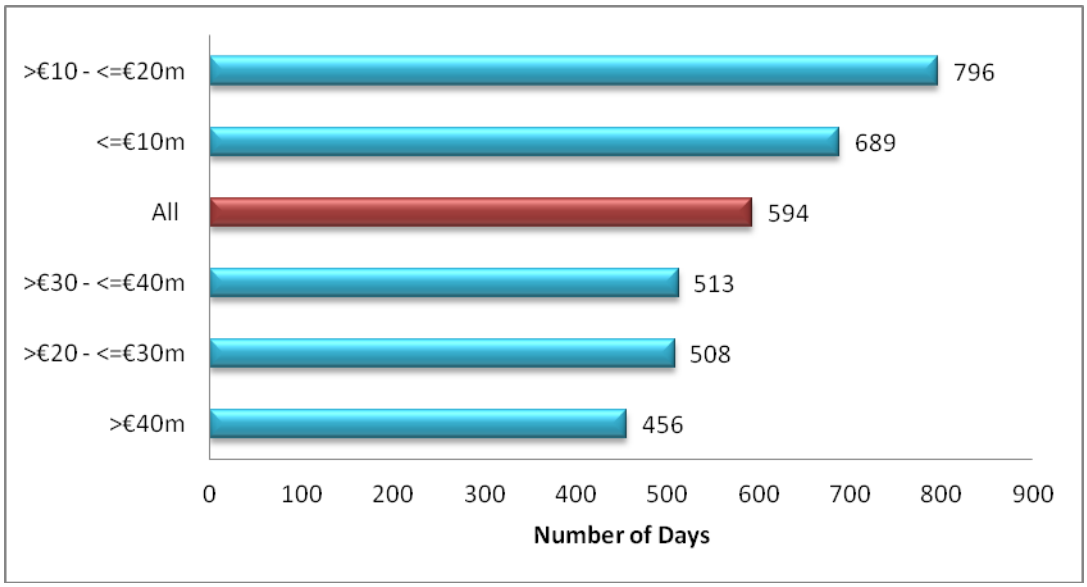
Figure B3.18: Non-Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Project Size



Member State	Average Project Planning Duration (days)	No of Projects
<=€10m	886	9
>€10 - <=€20m	1070	8
>€20 - <=€30m	767	13
>€30 - <=€40m	552	11
>€40m	600	14
All	760	57

Smaller non -major JASPERS-assisted projects (with project costs up to €20m) also experienced the longest JASPERS durations, 34 per cent above the average JASPERS duration across all projects. See Figure B3.19.

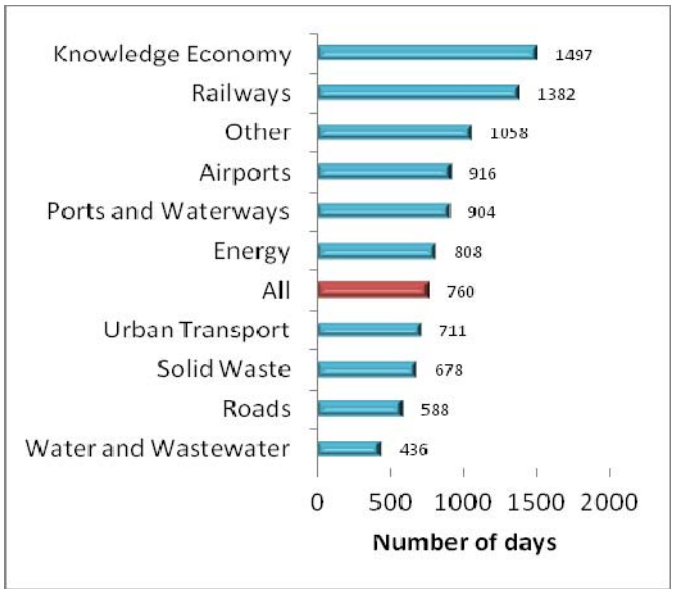
Figure B3.19: Non-Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by Project Size



Member State	Average JASPERS Duration (days)	No of Projects
<=€10m	689	16
>€10 - <=€20m	796	16
>€20 - <=€30m	508	22
>€30 - <=€40m	513	17
>€40m	456	18
All	594	91

There were two sectors with in excess of ten non-major JASPERS-assisted projects, namely the 'Solid Waste' and the 'Water and Wastewater' sector. In both sectors the average project planning durations were shorter than the average, by 324 days in the 'Water and Wastewater' sector and by 82 days in the 'Solid Waste' sector.

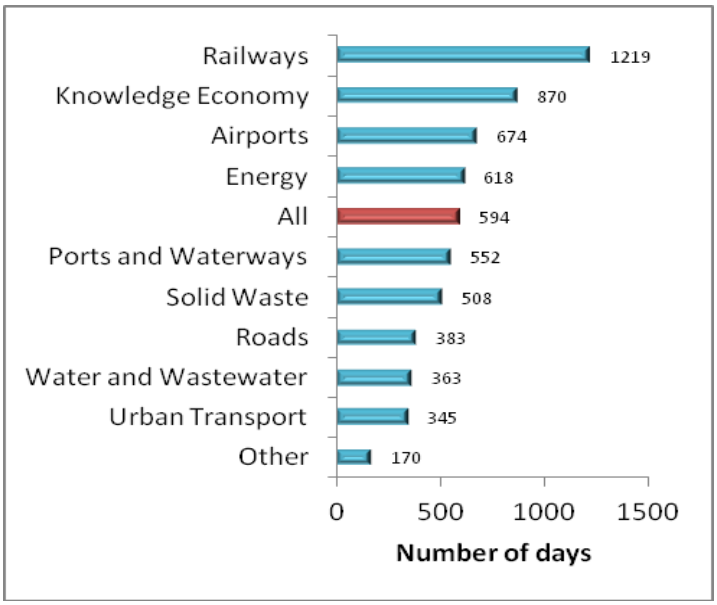
Figure B3.20: Non-Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by Project Sector



Sector	Average Project Planning Duration (days)	No of Projects
Airports	916	1
Energy	808	6
Knowledge Economy	1497	1
Other	1058	1
Ports and Waterways	904	3
Railways	1382	8
Roads	588	4
Solid Waste	678	14
Urban Transport	711	4
Water and Wastewater	436	15
All	760	57

Across the sectors in which there were significant numbers of projects, namely the 'Solid Waste'; 'Water and Wastewater'; 'Railways'; and 'Energy' sectors, the 'Railways' sector experienced the longest JASPERS durations (1,219 days, or 105 per cent above the average). In the 'Water and Wastewater' sector the average JASPERS duration was 363 days, which was 39 per cent below the average.

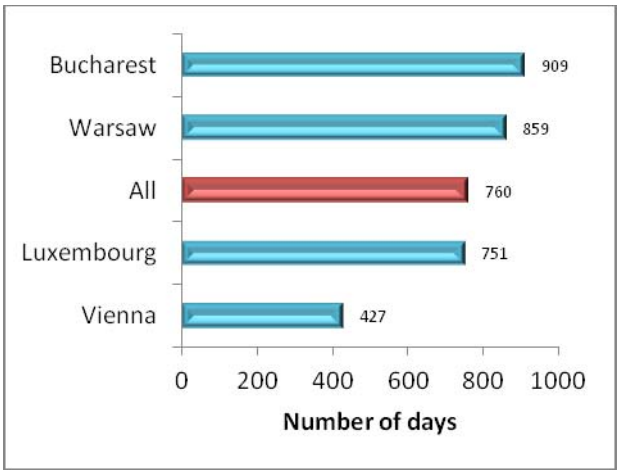
Figure B3.21: Non-Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by Project Sector



Sector	Average JASPERS Duration (days)	No of Projects
Airports	674	1
Energy	618	13
Knowledge Economy	870	1
Other	170	2
Ports and Waterways	552	3
Railways	1219	15
Roads	383	6
Solid Waste	508	26
Urban Transport	345	4
Water and Wastewater	363	20
All	594	91

There was significant variation across the JASPERS offices in terms of average Project Planning durations. The average project planning duration for projects supported through the Bucharest office was 909 days, which was 149 days above the average. The equivalent duration for projects supported through the Vienna office was 427 days, which was 333 days below the average.

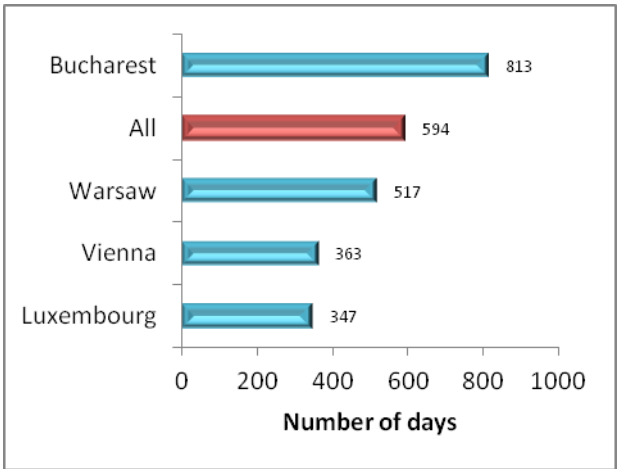
Figure B3.22: Non-Major JASPERS-Assisted Projects: Average Project Planning Duration (Days) by JASPERS Office



Office	Average Project Planning Duration (days)	No of Projects
Bucharest	909	23
Luxembourg	751	3
Vienna	427	15
Warsaw	859	16
All	760	57

The non-major JASPERS-assisted projects supported through the Bucharest JASPERS office experienced the longest JASPERS durations (813 days). The average JASPERS durations experienced by projects supported through the Warsaw office were close to the average (517 days). Projects supported through the Vienna office experienced average JASPERS durations of 363 days, which were 231 days below the average.

Figure B3.23: Non-Major JASPERS-Assisted Projects: Average JASPERS Duration (Days) by JASPERS Office



Office	Average Project Planning Duration (days)	No of Projects
Bucharest	813	39
Luxembourg	347	7
Vienna	363	22
Warsaw	517	23
All	594	91

B3.4: Timelines for JASPERS Horizontal Assignments

Table B3.4 sets out summary statistics of the average Timeline durations for JASPERS horizontal assignments. The average JASPERS duration across all horizontal assignments was 388 days.

Table B3.4: Summary of Timeline Duration Statistics for Horizontal Assignments in Receipt of JASPERS Assistance

	Average Number of Days	Median	Std Deviation	Co-efficient of Variation	n (Number of Projects)
JASPERS Duration	388	316	293	0.75	87

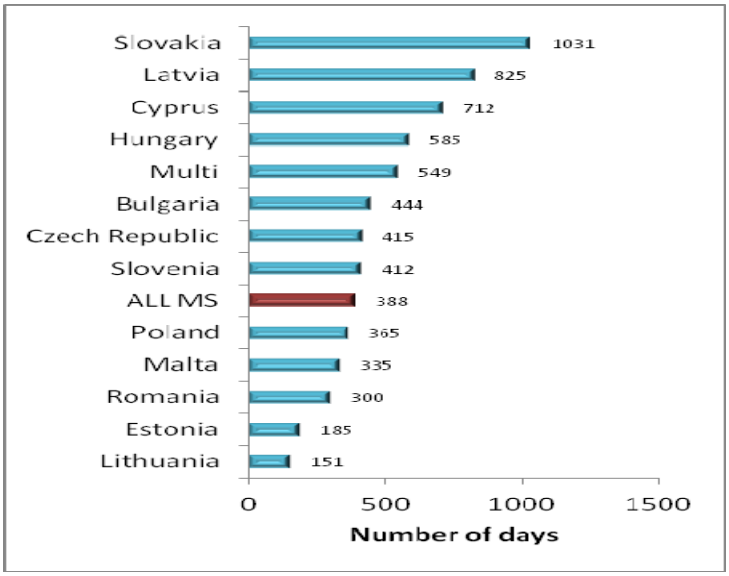
Figures B3.22 – B3.24 profile the average JASPERS durations for JASPERS horizontal assignments by Member State, project sector and also by JASPERS office.

The average JASPERS durations in both Romania and Poland were 300 and 365 days respectively, which were 23 and 6 per cent less than the average respectively. (See Figure B3.24).

There were four sectors for which there were significant numbers of horizontal assignments, namely 'Other;' 'Water and Wastewater'; 'Energy'; and Solid Waste'. Across the four sectors there was significant variation in terms of average JASPERS durations, ranging from 158 days for assignments in the 'Solid Waste' sector (59 per cent below the average), to 484 days for assignments falling into the 'Other' sector category (25 per cent above the average). (See Figure B3.25).

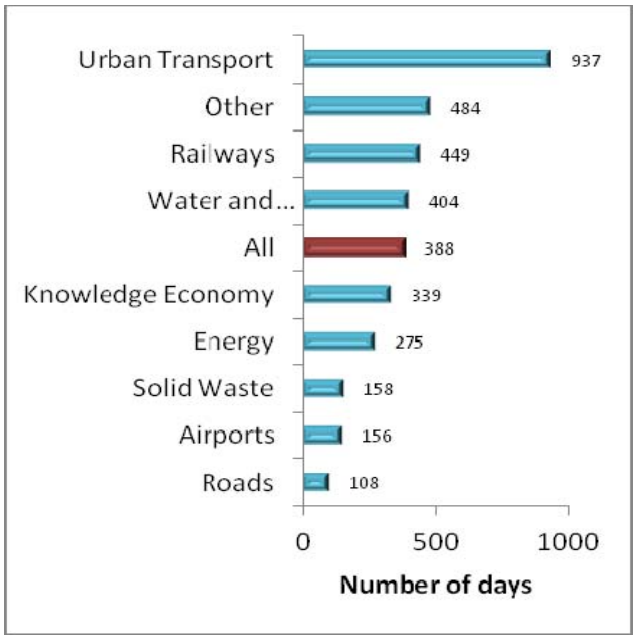
Average JASPERS durations did not vary significantly from the average in the two JASPERS offices that completed the largest proportion of horizontal assignments, namely Bucharest which completed 43 per cent of all horizontal assignments and where the average JASPERS duration was 331 days; and Warsaw which completed 37 per cent of all horizontal assignments and where the average JASPERS duration was 351 days. (See Figure B2.26).

Figure B3.24: Horizontal Assignments: Average JASPERS Duration (Days) by Member State



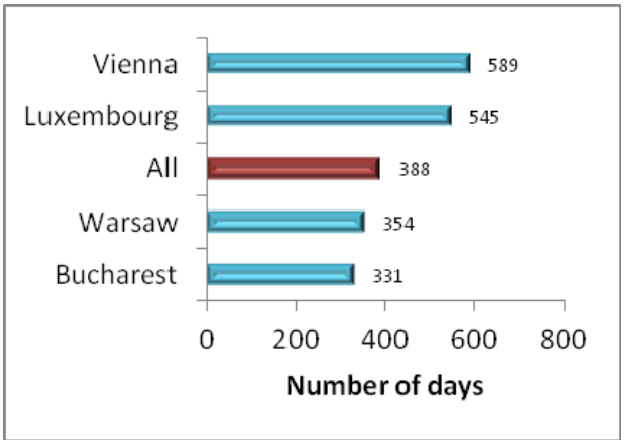
Member State	Average JASPERS Duration (days)	No of Projects
Bulgaria	444	8
Cyprus	712	3
Czech Republic	415	3
Estonia	185	4
Hungary	585	2
Latvia	825	3
Lithuania	151	5
Malta	335	3
Multi	549	4
Poland	365	19
Romania	300	29
Slovakia	1031	2
Slovenia	412	2
ALL MS	388	87

Figure B3.25: Horizontal Assignments: Average JASPERS Durations (Days) by Project Sector



Project Sector	Average JASPERS Duration (days)	No Projects (n)
Airports	156	1
Railways	449	2
Roads	108	1
Urban Transport	937	3
Energy	275	15
Solid Waste	158	12
Water and Wastewater	404	18
Knowledge Economy	339	3
Other	484	32
Total	388	87

Figure B3.26: Horizontal Assignments: Average JASPERS Duration (Days) by JASPERS Office



JASPERS Office	Average JASPERS Duration (days)	Number of Projects (n)
Bucharest	331	37
Luxembourg	545	9
Vienna	589	9
Warsaw	354	32
All	388	87

B3.5 Summary

The average the DG for Regional Policy Decision duration for major non-JASPERS-assisted projects was 386 days. The equivalent duration for JASPERS-assisted projects was 272 days. JASPERS supported projects thus required 114 less DG for Regional Policy Decision days relative to their non-JASPERS counterparts.

The average DG for Regional Policy active Decision duration for major non-JASPERS-assisted projects was 192 days, an increase of 28 per cent over the equivalent duration experienced by JASPERS-assisted projects. Similarly, the average interruption durations (194 days) experienced by major non-JASPERS-assisted projects exceeded the equivalent durations experienced by their JASPERS-assisted counterparts by 60 per cent.

An analysis of average Timeline durations for major JASPERS-assisted projects revealed:

- An average project planning duration of 734 days;
- Among the Member States for which there were in excess of ten projects (namely Romania, Poland, Hungary and the Czech Republic), average project planning durations deviated at most 11 per cent from the average;
- Projects with project costs of between €150 - €200m experienced the longest project planning durations (877 days); while projects with project costs of between €100m - €150m experienced the shortest project planning durations (644 days)
- Among the sectors for which there were in excess of ten projects, the ‘Railways’ sector experienced the longest project planning durations (899 days); while the ‘Solid Waste’ sector experienced the shortest project planning duration (619 days);
- An average JASPERS duration of 489 days;
- Average JASPERS durations in Poland mirrored the average; while those in Romania were 22 per cent above the average;
- Projects with project costs of between €150m and €200m experienced the longest JASPERS durations, 53 per cent above the average;
- An average DG for Regional Policy Decision duration of 272 days;
- The shortest DG for Regional Policy Decision durations were experienced in Romania (158 days) which was 42 per cent below the average;
- Projects with project costs in excess of €150m experienced above average DG for Regional Policy Decision durations; while projects with projects costs below €150m experienced below average DG for Regional Policy Decision durations;
- Among the sectors for which there were in excess of ten projects, the ‘Railways’ sector experienced the longest JASPERS durations (422 days); while the ‘Urban Transport’ sector experienced the shortest JASPERS durations (190 days).

An analysis of average Timeline durations for major non-JASPERS-assisted projects revealed:

- An average DG for Regional Policy Decision duration of 386 days;
- Projects in the €50 - €100m category (which represented 60 per cent of all major non-JASPERS-assisted projects) experienced average DG for Regional Policy Decision durations totalling 444 days, which were 15 per cent above the average.
- Average DG for Regional Policy Decision durations in Poland (where 62 per cent of all major non-JASPERS-assisted projects were concentrated) experienced average the DG for Regional Policy Decision duration of 518 days, 34 per cent above the average;
- The one sector with in excess of ten projects, namely the ‘Water and Wastewater’ sector, experienced the DG for Regional Policy Decision durations 33 per cent below the average.

An analysis of average Timeline durations for non-major JASPERS-assisted projects revealed:

- An average project planning duration of 760 days;

- The average project planning duration in both Romania and Poland were 144 days and 119 days above the average respectively;
- An average JASPERS duration of 594 days;
- Romania experienced the longest JASPERS durations;
- The 'Solid Waste' and 'Water and Wastewater' sectors experienced project planning and JASPERS durations below the average;
- The longest JASPERS duration was experienced in the 'Railways' sector;
- There was significant variation across JASPERS offices in terms of both average project planning and JASPERS durations.

An analysis of average Timeline durations for JASPERS-assisted horizontal assignments revealed:

- An average JASPERS duration of 388 days;
- The average JASPERS durations in both Romania and Poland were 23 per cent and 6 per cent below than the average respectively;
- The shortest JASPERS durations were experienced in the 'Solid Waste' sector (158 days);
- The longest JASPERS durations were experienced in the 'Other' sector (484 days);
- Average JASPERS durations did not vary significantly from the average in the two JASPERS offices where the vast majority of horizontal assignments were completed.

B4: Change in Average Timeline Durations over Time

B4.1 Introduction

It is of interest for the purpose of the evaluation to determine the extent to which the Timeline durations have changed since the introduction of JASPERS support in 2005. To address this issue, the change in Timeline durations (for major projects in receipt of JASPERS assistance) by the year JASPERS-assistance commenced is set out in Section B4.2. Section B4.3 then sets out the change in the DG for Regional Policy Decision duration for both JASPERS-assisted and non-JASPERS-assisted major projects by the year in which the applications were submitted to the DG for Regional Policy.

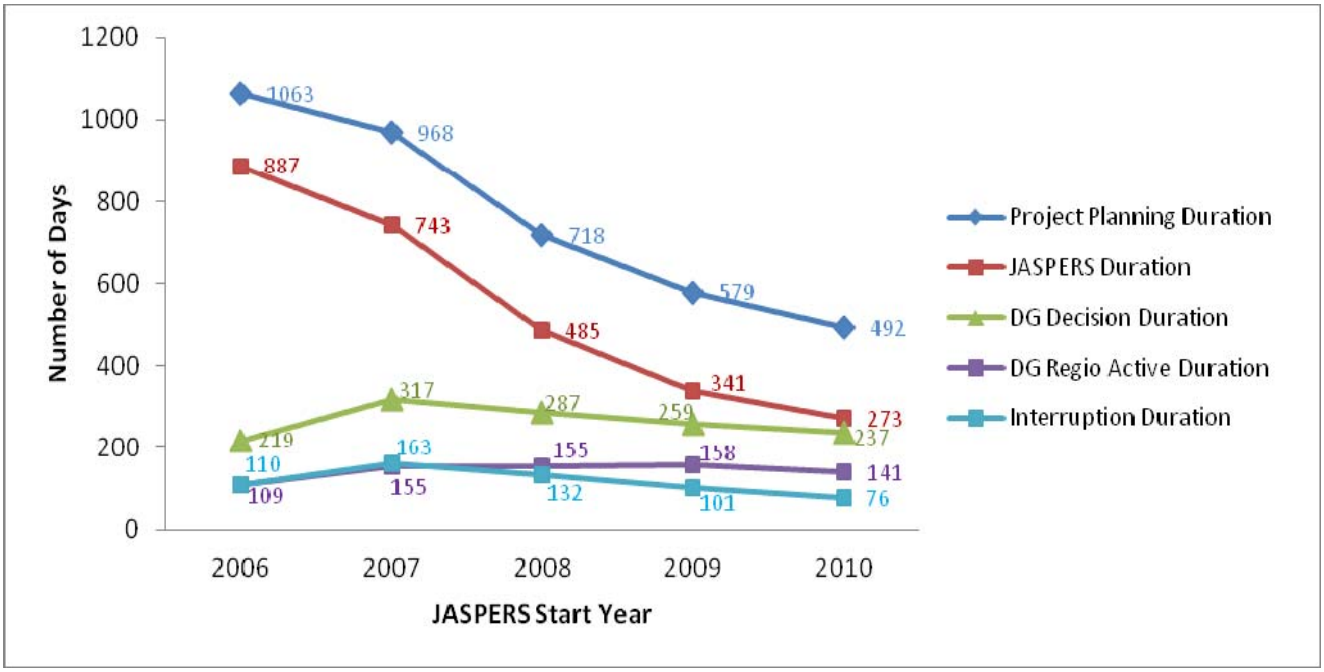
B4.2 Average Timeline Durations by JASPERS Start Year

Figure B4.1 sets out for JASPERS-assisted major projects, average Timeline durations by the year in which their JASPERS assistance commenced. As set out in the Figure, the average project planning duration for major JASPERS-assisted projects has declined annually since 2006. The average project planning duration for 2010 projects was 46 per cent of the equivalent duration experienced by 2006 projects. Figure B4.1 also sets out the change in JASPERS durations over the period 2006 – 2010. As illustrated in the Figure, there has been a trend towards shorter JASPERS durations. The average JASPERS duration for major projects that commenced their JASPERS support in 2010 was 30 per cent of the 2006 equivalent duration. By comparison with the project planning and JASPERS durations, the DG for Regional Policy Decision duration has remained stable over the period since the commencement of JASPERS support.

It should be noted however, that owing to the fact the analysis was limited in the first instance to major projects that had completed their JASPERS assistance prior to the end of June 2011; and in the second instance to major projects that had been in receipt of a the DG for Regional Policy Decision (which was necessary in order to calculate Project Planning and the DG for Regional Policy Decision durations) the trends in Timeline durations as portrayed in Figure B4.1 may not reflect the reality of actual Timeline durations. For example, projects that commenced their JASPERS assistance and that have yet to complete their JASPERS assistance are excluded from the analysis. This has an effect on average JASPERS durations because whilst the calculated average JASPERS durations of projects that commenced their JASPERS assistance in 2010 is 273 days (see Figure B4.1), any JASPERS assignment that started in 2010 and which was still ongoing in June 2011 has been excluded from the calculation of

this average. In a similar fashion projects that were submitted to the DG for Regional Policy and that have not yet received a Decision are excluded from the calculation of the DG for Regional Policy Decision durations.

Figure B4.1: Change in Timeline Durations by JASPERS Start Year (Major JASPERS-assisted Projects)



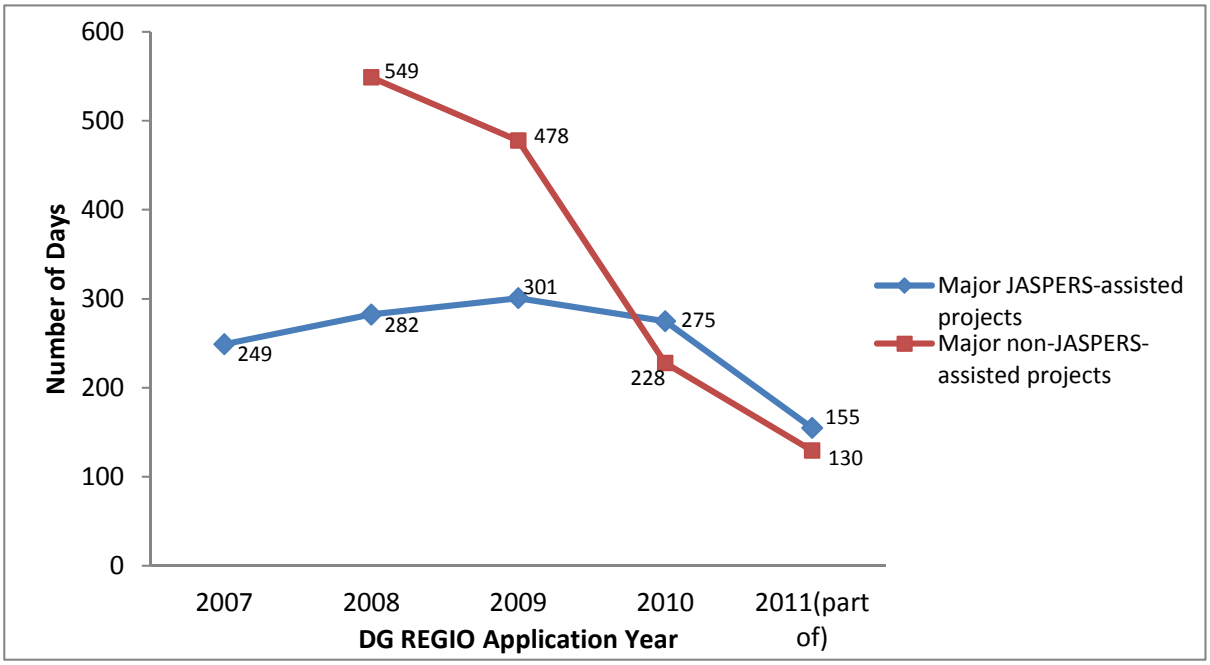
B4.3 Timeline Durations by the DG for Regional Policy Application Year

Figure B4.2 sets out the DG for Regional Policy Decision durations for both JASPERS-assisted and non-JASPERS-assisted major projects, by the year in which the projects were submitted to the DG for Regional Policy for funding approval. As set out in the Figure, average DG for Regional Policy durations have remained relatively stable over the 2007 – 2010 period for JASPERS-assisted projects. The equivalent durations for non-JASPERS-assisted projects have declined significantly over the 2008 – 2010 period.

In a similar fashion to the analysis set out in Section B4.2, there are limitations associated with accuracy of the trends presented in Figure B4.2. Owing to the fact the analysis was limited to projects that had received a the DG for Regional Policy Decision (which was necessary in order to calculate Project Planning and the DG for Regional Policy Decision durations) projects submitted for funding approval that had not received a funding Decision are excluded from the analysis.

Notwithstanding this, the differing trends in the DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted projects may be partially explained by the high base durations from which the non-JASPERS-assisted projects started in 2008. The differing trends may also be partially explained by the fact that the non-JASPERS-assisted projects have benefited from the expertise acquired through their Member State's involvement with JASPERS support, which may be contributing to declining the DG for Regional Policy Decision durations for non-JASPERS-assisted projects.

Figure B4.2: Change in the DG for Regional Policy Decision Durations by the DG for Regional Policy Application Year



B5: Overview of JASPERS Impact on Timeline Durations of Major Projects

B5.1 Introduction

In Section B3 it was established that there were differences in average the DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted major projects. This Section is concerned with an analysis of the criteria that are contributing to the variations in Timeline durations.

Section B5.2 presents a summary of average the DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted major projects. Section B5.3 then outlines how average the DG for Regional Policy Decision durations have varied for JASPERS-assisted and non-JASPERS-assisted major projects according to a number of key criteria. B5.3 sets out the results of a multivariate regression analysis that was carried out to explore the affect of JASPERS assistance on the DG for Regional Policy Decision durations when all other influencing criteria are held constant.

B5.2 DG for Regional Policy Decision Durations for Major Projects

Table B5.1 sets out a summary of average DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted major projects. As set out in the Table, the average DG for Regional Policy Decision duration for non-JASPERS-assisted projects exceeded that for JASPERS-assisted projects by 114 days. Of the 114 days, 74 were accounted for by interruption days; while 42 related to days when the DG for Regional Policy was actively assessing the projects.

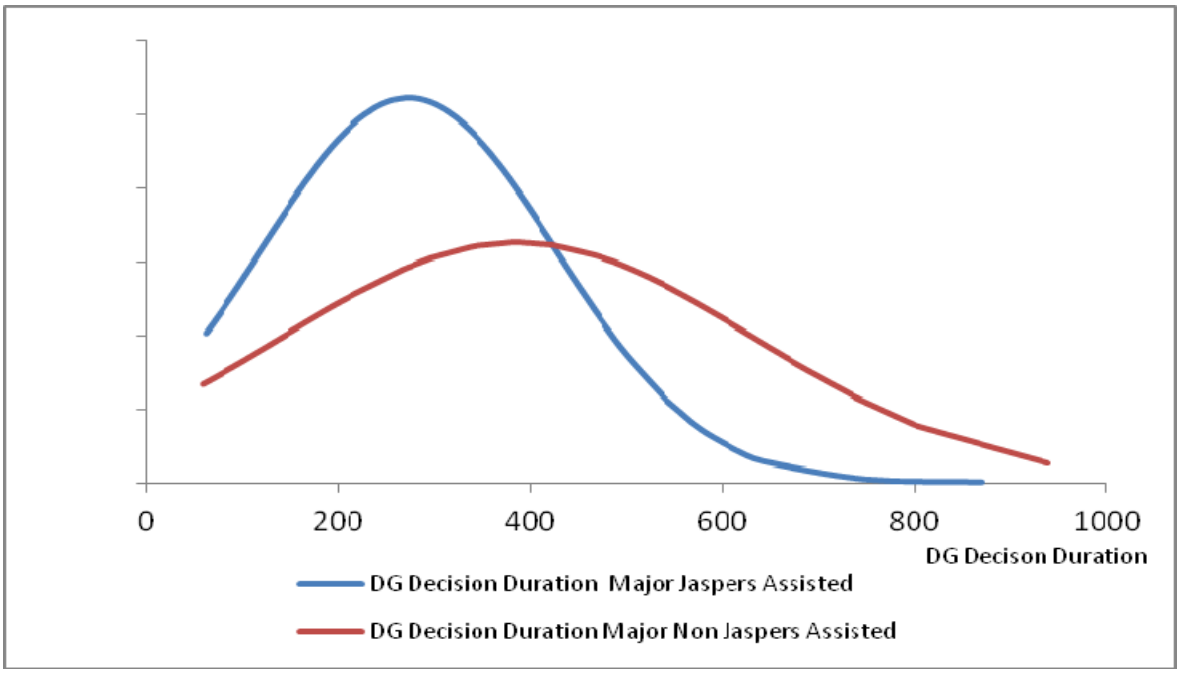
Table B5.1: the DG for Regional Policy Decision Durations for Major Projects

	Major JASPERS-Assisted Projects* (a)	Major Non-JASPERS-Assisted Projects (b)	Difference (a – b)
DG for Regional Policy Decision Duration	272	386	*-114*
DG for Regional Policy Active Decision Duration	150	192	*-42*
DG for Regional Policy Interruption Duration	120	194	*-74*

*The '*DG for Regional Policy Interruption Duration*' and the '*DG for Regional Policy Active Decision Duration*' do not exactly total the 'DG for Regional Policy Decision Duration' owing to the fact that the split between active and interruption durations was not available for one major JASPERS-assisted project.

Figure B5.2 sets out the distribution of the DG for Regional Policy Decision durations for both JASPERS-assisted and non-JASPERS-assisted major projects. The width of each curve is set by the standard deviation of the DG for Regional Policy Decision durations. As set out in the Figure, the width of the curve for major non JASPERS assisted projects is considerably wider than for JASPERS assisted projects. This indicates that there is more variability in the DG for Regional Policy Decision durations for major non JASPERS assisted projects. It is also clear that JASPERS assisted projects are skewed to the right and on average has lower DG for Regional Policy Decision durations than major non JASPERS assisted projects.

Figure B5.2 Distribution of DG Decision Duration for Major JASPERS assisted and non JASPERS assisted projects



B5.2 DG for Regional Policy Decision Durations for Major Projects by Key Criteria

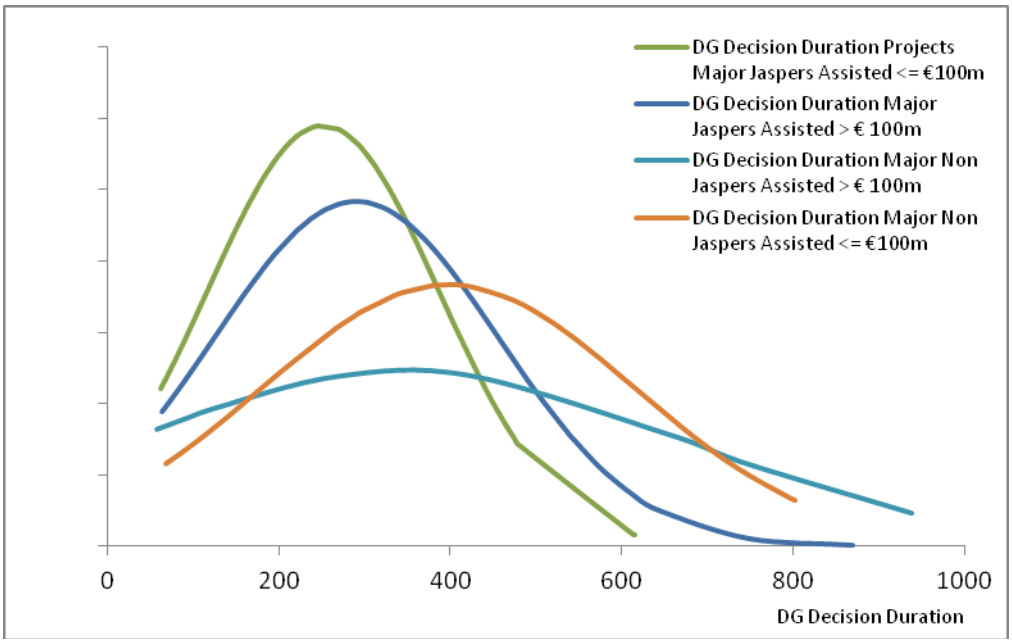
In Section B.3 the variation in average DG for Regional Policy durations according to a number of key criteria including Member State, project sector and project size were analysed. Table B5.2 sets out the average DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted major projects, by the key criteria for which comparison data are available. As set out in the Table, in Poland, the Czech Republic and Slovenia, the DG for Regional Policy Decision durations have been shorter for JASPERS-assisted projects, relative to non-JASPERS-assisted projects. In Romania and Estonia, the opposite is true. Across the project sectors for which comparison data was available, (namely 'Roads'; Water and Wastewater'; 'Railways'; 'Urban Transport'; and 'Knowledge Economy'), average the DG for Regional Policy Decision durations were shorter for JASPERS-assisted projects. The largest difference between Decision durations was witnessed in the 'Urban Transport' sector, where the average Decision duration for non-assisted projects exceeded that of assisted projects by 231 days. The shortest variation was experienced in the 'Water and Wastewater' sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 25 days.

When analysed according to project size, average DG for Regional Policy Decision durations for JASPERS-assisted projects were found to be shorter relative to non-JASPERS-assisted projects. In the case of projects valued €100m or less, JASPERS-assisted projects experienced on average 147 less days relative to non-assisted projects. Equally in the case of projects valued greater than €200m, JASPERS-assisted projects experienced on average 345 less days relative to non-assisted projects. However, in the case of projects valued between €100m and €200m, there was little difference in average Decision durations for JASPERS-assisted and non-JASPERS-assisted projects. (See Table B5.2). A distribution curve of major JASPERS assisted and non JASPERS assisted projects by project size is illustrated in Figure B5.3. As set out in the Figure there is more variability in the DG for Regional Policy Decision durations for larger projects. It is also clear that the average DG for Regional Policy Decision durations are longer for larger projects and project which did not avail of JASPERS assistance.

Table B5.2: DG for Regional Policy Decision Durations for Major Projects

	Major JASPERS-Assisted Projects (a)	Major Non-JASPERS-Assisted Projects (b)	Difference (a – b)
Member State			
Poland	313	518	*-205*
Romania	158	90	*68*
Estonia	264	195	*69*
Czech Republic	370	499	*-129*
Slovenia	336	423	*-87*
Sector			
Roads	307	376	*-69*
Water and Wastewater	220	245	*-25*
Railways	422	527	*-105*
Urban Transport	190	421	*-231*
Knowledge Economy	337	484	*-147*
Project Size			
<=€100m	251	398	*-147*
>€100m and <= €200m	261	266	*-5*
>€200m	336	681	*-345*

Figure B5.3 Distribution of DG Decision Duration for Major JASPERS assisted and non JASPERS assisted projects by project size



B5.3 Multivariate Regression Analysis

Although the fact that the reduction in the DG for Regional Policy Decision durations for JASPERS-assisted projects held true for different project sectors and sizes, the fact that JASPERS-assisted and non-assisted project might differ in composition remained a cause for concern. In order to adjust the analysis above to take account of the simultaneous effect of key criteria on the DG for Regional Policy Decision durations, a multivariate regression analysis was carried out, the results of which are set out in Annex B.10. As part of the regression analysis, the simultaneous effect of Member State, project sector, project size and JASPERS support on the DG for Regional Policy Decision durations of all major projects was analysed. A linear regression model was employed with dummy variables used for Member States, project sector and JASPERS support. The regression results confirm the view that when account is taken for all possible influencing variables, that JASPERS assistance has the effect to reduce the DG for Regional Policy Decision durations by 86 days.

B5.4 Summary

An analysis of the DG for Regional Policy Decision durations for JASPERS-assisted and non-JASPERS-assisted projects revealed the DG for Regional Policy Decision durations that were shorter on average by 114 days for JASPERS-assisted projects. When analysed by project sector and project size, shorter the DG for Regional Policy Decision durations held true for JASPERS-assisted projects. In order to take account of the possibility that the composition of projects was contributing to the shorter the DG for Regional Policy Decision durations, a multivariate regression analysis was carried out. The regression results confirm the view that when account is taken for all possible influencing variables, that JASPERS assistance has the effect to reduce the DG for Regional Policy Decision durations, by 86 days.

B6: Conclusions

A key objective of the evaluation of JASPERS is to establish the impact of JASPERS on the Timelines of the preparation and submission of major projects to the DG for Regional Policy for funding approval. In order to address this question, four types of Timelines were created, each representing one of the three types of JASPERS assistance (namely major projects; non-major projects; and horizontal assignments) as well as one comparison Timeline for major projects that were not in receipt of JASPERS assistance. Each Timeline comprises one or more durations which together form the project preparation period. An analysis of Timeline durations was carried out to establish if JASPERS has had an impact on project preparation periods.

The DG for Regional Policy Decision durations relate to the time between the submission of a major project application to the DG for Regional Policy and the DG for Regional Policy funding Decision. An analysis of the DG for Regional Policy Decision durations for major JASPERS-assisted projects revealed an average the DG for Regional Policy Decision duration of 272 days. The equivalent duration for non-JASPERS-assisted projects was found to be 386 days. The availability of JASPERS assistance appears to have reduced the DG for Regional Policy Decision duration, on average, by 114 days.

The DG for Regional Policy Decision duration is broken down into periods during which the DG for Regional Policy is actively accessing the project application (the active Decision duration); and periods when the applications are interrupted (the interrupted Decision duration). An analysis of the split between active and interrupted Decision durations, revealed the additional 114 days required by non-JASPERS assisted projects was split into 42 active Decision days and 74 interrupted days. Hence, non-assisted projects experienced proportionally more interruption days, relative to their JASPERS-assisted counterparts.

Having found that JASPERS-assisted projects experienced shorter the DG for Regional Policy Decision durations, the issue of whether this held true for different types of projects was explored.

An analysis of the DG for Regional Policy Decision durations by project size revealed shorter average Decision durations for JASPERS-assisted projects relative to the non-assisted projects, across the different size categories. Projects with costs totalling less than €100m experienced average Decision duration of 251 days; the equivalent duration for non-assisted projects was 398 days. In the case of projects with costs of between €100m and €200m, the Decision durations for JASPERS-assisted project were also shorter, although the difference was negligible at 5 days. For projects with costs in excess of €200m, the average Decision durations for JASPERS-assisted projects, at 336 days, was significantly shorter than for non-assisted counterparts (681 days).

A similar analysis of the DG for Regional Policy Decision durations for both JASPERS-assisted and non-JASPERS-assisted projects by sector showed that across all sectors, for which there was comparison data (namely 'Roads'; Water and Wastewater'; 'Railways'; 'Urban Transport'; and 'Knowledge Economy'), the average Decision durations for JASPERS-assisted projects were shorter than for non-assisted projects. The largest variation between Decision durations was witnessed in the 'Urban Transport' sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 231 days. The shortest variation was experienced in the 'Water and Wastewater' sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 25 days.

There were five Member States which submitted both JASPERS-assisted and non-JASPERS-assisted projects to the DG for Regional Policy for funding approval, namely Romania, Poland, Czech Republic, Estonia and Slovenia. Across the five Member States, the average DG for Regional Policy Decision durations was shorter for JASPERS-assisted projects in Poland, the Czech Republic and Slovenia. In both Romania and Estonia the DG for Regional Policy Decision durations were actually shorter for projects that were not in receipt of JASPERS assistance. In the case of Romania, the non-JASPERS-assisted projects belonged to the 'Solid Waste' (2 projects) and 'Water and Wastewater' (7 projects) sectors. In Estonia the non-JASPERS-assisted projects belonged to the 'Solid Waste' (1 project); 'Water and Wastewater' (2 projects); and 'Railways' (1 project) sectors. In the case of both Romania and Estonia, the number of non-assisted projects was very small. Average Timeline durations based on small numbers of projects may not reflect the reality of the underlying Timeline durations.

Although, the fact that the reduction in the DG for Regional Policy duration held true for different project types is reassuring, nonetheless the fact that JASPERS-assisted and non-assisted projects might differ in composition remained a cause for concern. Analysis was conducted to ensure a like for like comparison and this reduced the impact of JASPERS assistance from 114 days, to 86 days.

The JASPERS duration relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance for a project/assignment. Across the three types of JASPERS assignment, namely, major, non-major and horizontal assignments, the average JASPERS durations were 489 days; 594 days; and 388 days respectively. Non-major projects thus experienced longer average JASPERS durations compared to major projects.

Half of all major JASPERS-assisted projects were located in either Romania or Poland. JASPERS durations in Romania exceeded the average by 118 days; by contrast JASPERS durations in Poland, at 476 days, were close to the average. Larger major projects (with project costs in excess of €150m) experienced longer than average JASPERS durations. Across the sectors in which there were significant numbers of projects (in excess of ten), the 'Urban Transport' sector experienced the longest JASPERS durations, 99 days above the average. The shortest durations were experienced in the 'Water and Wastewater' sector, where average JASPERS durations were 47 days below the average.

Almost all major JASPERS-assisted projects were supported through the Bucharest, Vienna, and Warsaw JASPERS offices, each accounting for 38, 35 and 26 per cent of projects respectively. The Bucharest office experienced the longest JASPERS durations, which were 111 days above the average. In both the Warsaw and Vienna offices the JASPERS durations were below average. As well as experiencing the longest JASPERS durations, the Bucharest office experienced the shortest the DG for Regional Policy Decision durations (94 days

below the average). The Warsaw and Vienna offices both experienced above average the DG for Regional Policy Decision durations.

Trends in the average JASPERS durations for non-major JASPERS-assisted projects were similar in many respects to those of their major JASPERS-assisted project counterparts. Half of all non-major JASPERS-assisted projects were also located in either Romania or Poland. JASPERS durations for Romanian non-major projects were above average, by 333 days. In Poland, the average JASPERS duration for non-major projects was 542 days, 52 days below the average. The Bucharest JASPERS office (which supported 40 per cent of non-major projects for which duration data was available) experienced the longest JASPERS durations, 149 days above average. The Vienna JASPERS office which supported one-quarter of all non-major projects for which duration data was available, experienced JASPERS durations 231 days below the average. 'Railway' projects experienced the longest non-major JASPERS durations, 625 days above the average.

Romania and Poland accounted for 55 per cent of all JASPERS horizontal assignments. In both Member States however, the average JASPERS durations were below average. The 'Energy', 'Solid Waste' and Water and Wastewater' sectors each had in excess of ten horizontal assignments. All three of these sectors experienced below average JASPERS durations. The two JASPERS offices that together supported 80 per cent of all JASPERS horizontal assignments (namely Bucharest and Warsaw) each experienced below average JASPERS durations.

Section C: Task 2 Links between JASPERS Advice and DG REGIO Project Assessment

Section C: Task 2: Links between JASPERS Advice and the DG for Regional Policy Project Assessment

C1: Introduction

Background

This section of the report explores the link between JASPERS advice on major projects and the subsequent assessment by the DG for Regional Policy of these projects which have benefitted from that advice. Specifically, the Request for Tenders requires that the following questions be addressed:

- What are the most common topics on which JASPERS has provided technical input, across Member States, sectors, JASPERS office and over time?
- What are the most common issues raised by the DG for Regional Policy, on projects which have had JASPERS support, across Member States, sectors, JASPERS office and over time?
- Did major projects applications appear to have taken on board JASPERS advice given through relevant assignments? and
- Did the DG for Regional Policy highlight new issues during the appraisal process which had not been addressed when the project was a JASPERS assignment and what were they?

In order to address these issues, it was necessary to gather information, for each project under consideration, on the scale and scope of the work carried out by JASPERS and the scale and scope of the topics raised by the DG for Regional Policy as interruptions during its assessment of applications for funding.

These data facilitated basic analyses of the topics addressed by JASPERS and those raised in Interruption letters. They further facilitated exploration of the extent to which topics on which Member States sought the assistance of JASPERS were subsequently raised with Member States by the DG for Regional Policy in Interruption Letters.

In some cases, an overlapping of these issues was observed. That is, the same topics were raised by the DG for Regional Policy as were the subject of advice by JASPERS. In order to better understand this outcome, an in-depth qualitative review of a sample of 20 projects which sought JASPERS advice and were subsequently interrupted by the DG for Regional Policy was also undertaken,

Layout

The remainder of this Section is set out as follows. Section C2 details the methodology applied in carrying out this task. The scale and scope of JASPERS supports are presented in Section C3. Section C4 goes on to detail the scale and scope of the DG for Regional Policy interruptions. Section C5 then explores the correlation between topics on which JASPERS offered advice and those arising in subsequent the DG for Regional Policy interruptions. Finally, Section C6 summarises the findings.

C2: Methodology

C2.1 Approach

In order to determine the scale and scope of topics both treated by JASPERS and raised by DG for Regional Policy, it was necessary to define categories under which these topics could be placed. Based on the standard stages in the project planning process and the required contents of the DG for Regional Policy project application form, AECOM developed a standard list of relevant topics. This list is set out in Table C1 below

Table C1 Standardised List of Topics

Project Concept and Programming
Project Design
Project Cost Estimation
Demand Analysis & Modelling
Cost Benefit Analysis
Environmental Issues
Risk & Sensitivity Analysis
Competition and State Aids
Funding and Financing Issues
Procurement
Project Implementation & Structures

Source: AECOM

The issues incorporated into these topics include:

- Project Concept & Programming - Establishing project need, including defining the project objectives and scope and its interaction with relevant programmes and master plans;
- Project Design – Assessing options for project design including issues of project size, service levels or project location;
- Project Cost Estimation – Establishing the costs associated with project works;
- Demand Analysis & Modelling - Forecasting potential demand for the project, which may incorporate traffic or patronage forecasting in the case of transport projects or modelling settlement patterns in the case of Water and Waste Water treatment plants;
- Cost Benefit Analysis – Identifying the costs and benefits associated with a project in line with European Commission guidelines on Cost Benefit Analysis;
- Environmental Issues – Undertaking Environmental Impact Assessments and assessing the impact of the project on Natura 2000 sites;
- Risk and Sensitivity Analysis – Identifying the likelihood of potential risks to the projects, quantitatively or qualitatively and testing the sensitivity of the project to changes in key parameters such as investment costs, revenue, patronage volumes or value of time;
- Competition and State Aids – Seeking advice in relation to legislation on competition and State Aids rules;
- Funding & Financial Issus – Identifying the costs and revenues for the project once it is operational, establishing the financial rate of return or net present value for the project and the funding gap, identifying funding sources;
- Procurement – Tendering and the awarding of contracts for the project implementation;
- Project Implementation & Structures – Establishing a timetable for completion of the project and identifying the institutional arrangements in place to bring the project to fruition.

Apart from these topics, it became apparent that many of the requests for help from Member States were of a more general nature. Accordingly, in analysing the contribution of JASPERS, some additional data were collected. These related to JASPERS role in:

- Vetting of Overall Proposals & Feasibility Study – Reviewing the overall feasibility study, incorporating a broad review of all the issues outlined above from Concept to Implementation;
- Review/Preparation of Application Form – Reviewing of the application form to ensure it complies with the requirements set down by the DG for Regional Policy;
- Assistance in Answering Interruption Queries – Responding to Interruption Letters by JASPERS.

C2.2 Capturing the Data on JASPERS Topics

In practice, JASPERS usually provided advice to Member States on a wide range of topics for a single project. This is because JASPERS was often asked to review the feasibility study for the project and or the application form. However, of more interest from the point of view of depicting the JASPERS support was to identify the major work elements undertaken by JASPERS officials. To capture the major work elements, the Completion Notes for each project were examined to determine which of the standardised list of topics were addressed by JASPERS. This information was gathered from the summary of actual JASPERS input to the project, including any work which was not originally foreseen in the Project Fiche. Thus, the identification of topics was based on what JASPERS officials recorded as their **major** work elements.

C2.3 Capturing the Data on Interruption Topics

To capture the data on interruption topics, the interruptions letters issued by DG for Regional Policy were used. Based on a preliminary examination of a sample of Interruption Letters, it was determined that a large number of the issues raised by the DG for Regional Policy in Interruption Letters were minor in nature. Such issues included requiring minor adjustments to the application forms or attaching workings for calculations presented in the application form. Consequently, it was decided to only identify topics which were substantive for Member States and so would require a significant amount of work on their part.

Identifying substantive issues is subjective in nature and so can vary by the individual examining the interruptions letters. Accordingly, the definition of what would be a substantive interruption was agreed ex ante as: an issue on which either substantial additional work or information was required, or one on which the DG for Regional Policy would be unlikely to allow the project to proceed without an adequate response. To ensure broad consistency by the consultants, a sample of ten projects was examined by each of the four analysts that were engaged in the process to determine which topics were deemed to be substantive in nature. The outcome of this exercise revealed that the analysts were broadly consistent across projects in identifying substantive topics. Where differences did occur among consultants, the topics in question were discussed and a rule of thumb was determined to classify these topics

C2.4 Data Availability

As of the end of June 2011, 208 major projects were subject to a decision by the DG for Regional Policy. Of these 208 projects, 168 were assisted by JASPERS. In exploring the link between JASPERS advice on major projects and the subsequent assessment by the DG for Regional Policy of those projects, it was necessary to focus on these 168 JASPERS assisted major projects for which a the DG for Regional Policy decision had been made. Data from Completion Notes were available for all 168 projects. From an analysis of the Timelines previously carried out in Section B, it was determined that 138 of these 168 projects were interrupted by the DG for Regional Policy. However, examination of the SFC 2007 database which contains the DG for Regional Policy Interruption Letters revealed that Interruption Letters were not readily available for 22 of these projects. This resulted in a dataset of 146 projects which could be used for the comparison of JASPERS assistance and the DG for Regional Policy interruptions.

C3: Analysis of JASPERS Assistance

C3.1 Introduction

This sub-Section of the Report analyses JASPERS assistance in terms of the scale and scope of topics addressed by JASPERS at the request of the Member States. It begins by setting out some measures of the scale of JASPERS efforts, before analysing the scope, through an examination of the variety of topics on which assistance was offered.

C3.2 Scale of JASPERS Effort

A complete and full measurement of the **scale** of JASPERS assistance is not possible using the documentary evidence that is available. At a later stage in the Study, more complete measures will be recorded. However, some measures could be acquired from the documentation that was examined for this task and the opportunity was taken to record such data. Firstly, the average number of topics covered by JASPERS could be recorded and analysed. Obviously, the more topics covered in relation to a particular project, the greater the JASPERS support. Secondly, JASPERS officials invariably conducted meetings and site visits in the Member States to better understand the projects and to gather relevant information. Again, the larger the number of such meetings/visits, the greater the level of JASPERS involvement in the project.

Table C2 presents an overview of the data collected in terms of:

- the average number of topics covered by JASPERS per project ; and
- the average number of meetings/site visits conducted by JASPERS per project.

Overall the average number of topics covered as part of JASPERS support to projects was 4.8. As can be seen, the average number of topics covered by JASPERS varied significantly across Member States and JASPERS Offices.

Polish projects had a high level of assistance from JASPERS with advice provided on an average of 5.5 topics. This was substantially higher than Czech projects, which sought JASPERS assistance in relation to an average of 2.9 topics only. Similar trends are evident in the Vienna and Warsaw JASPERS offices which would have accounted for the majority of Polish and Czech projects respectively.

The scale of effort as measured by the number of meetings/site visits also varied significantly across Member States. Overall, the average number of meetings/visits was 5.3. Once again, it appears that Czech projects had relatively lower levels of JASPERS assistance, with an average of 2.7 meetings compared to 5.9 meeting in Poland.

Similar disparities in the intensity of JASPERS effort is also seen across sectors. Solid Waste had relatively few topics assisted on by JASPERS, averaging 3.4 compared to the Knowledge Economy or Road sectors both of which sought advice on an average of 5.4 topics. The Knowledge Economy also appears to have required a greater level of JASPERS assistance in terms of the number of meetings attended by JASPERS, which averaged 8.1.

Over time, it appears that there has been little change in the scale of JASPERS effort, however it is evident that larger projects require assistance in relation to a higher number of topics and the number of meetings attended by JASPERS is larger.

Table C2: Some Measures of the Scale of JASPERS Support

Projects	Average No of Topics Covered by JASPERS per Project	Average No of Meetings attended by JASPERS per Project
Member States		
Czech Republic	2.9	2.7
Hungary	4.7	4.6
Poland	5.5	5.9
Romania	5.0	5.1
All other Member States	4.9	7.1
Sectors		
Water Waste Water	4.7	4.2
Roads	5.4	5.2
Rail	4.8	5.6
Knowledge Economy	5.4	8.1
All Other Sectors	4.7	5.9
Solid Waste	3.4	5.6
JASPERS Office		
Bucharest	5.0	6.0
Vienna	4.1	4.2
Warsaw	5.5	6.0
Project Size		
<=€150m	4.4	4.5
>€150m	5.5	7.5
DG for Regional Policy Decision Year		
<=2009	4.7	5.3
>=2010	4.8	5.3
Number of Projects Analysed	168	115

Source: AECOM

Note: Data for some of the sectors and Member States have been aggregated to ensure a sufficiently large sample for analysis.

C3.3 Analysis of the Scope of JASPERS Supports

This sub-Section analyses the scope of JASPERS involvement. It does this by establishing the extent to which the various topics identified in Section C2 are prevalent in projects. Table C3 presents an overview which sets out for each topic the proportion of projects in which that topic occurred.

Project Concept and Programming: This topic comprises both the development of the project concept and its role in any wider strategy, programme or Masterplan. In the early years of JASPERS' operations, project concept issues did not arise frequently. This is understandable as many projects were already at an advanced state of preparation. JASPERS' support in this area often took the form of helping the Member State to articulate and communicate their strategic approach. 30.4 per cent of projects were supported by JASPERS in relation to this topic.

Project Design: This topic occurred in 21.4 per cent of projects. This involved issues of project sizing, service levels or location, as well more detailed design elements. JASPERS' involvement included advising on the development of alternative design options, evaluating the relevance and appropriate of the design options chosen, and advising on new and alternative solutions.

Project Cost Estimation: At 9.5 per cent of projects, JASPERS' support was not often sought on this issue. Where it was, the focus was largely on benchmarking the projects costs to ensure that they were appropriate.

Demand Analysis and Modelling: JASPERS' input was frequently sought in respect of this topic - 24.4 per cent of projects. Modelling demand is particularly difficult in respect of transport projects because of network and service level effects and JASPERS' advice focused on issues such as the appropriateness of the modelling approach and assumptions, and the reasonableness of the forecasts.

Cost Benefit Analysis: At 74.4 per cent, this was the topic on which JASPERS' advice was most frequently sought. The nature of JASPERS' supports was very wide ranging and included the development and implementation of the cost benefit methodology, as well as specific issues such as the appropriate parameter values to be used and the calculation of residual values.

Environmental Issues: This topic occurred in 29.2 per cent of projects. JASPERS' advice included consideration as to whether the project complied with various EU directives, particularly those now falling under the Water Framework Directive and Natura 2000. Advice was also provided on Environmental Impact Analysis.

Risk and Sensitivity Analysis: This occurred in 18.5 per cent of projects. This involved advice on such issues as the development of scenarios for testing, the development of risk matrices, and the calculation of switching values.

Competition and State Aids: At 8.3 per cent, competition and State Aids issues arose relatively infrequently. The majority of projects relate to the provision of public infrastructure which is available for use on the same terms by all private and business users. The provision of financial support for this type of infrastructure does not confer an advantage on any one firm or group of firms so no State Aid issues arise. The exception to this were projects where funding was given to new Research and Development facilities to promote the Knowledge Economy. These centres may carry out commissioned research for firms or may license Intellectual Property that they develop to firms. In either case the fees or royalties charged will be a cost for these firms, and the level of this cost could be reduced by the fact that the research centre has received public funding. This would constitute an advantage for these firms, so the question to State Aid arises in these projects.

Funding and Financing Issues: Intensive use was made of JASPERS' support on this topic at 35.1 per cent of projects. This is unsurprising as the identification of the scale of the grant assistance is crucial to the project application process. Advice included the development and implementation of financial modelling, advice on tax issues, and advice on the definition and estimation of the funding gap.

Procurement: At 10.1 per cent of projects, JASPERS was called on relatively less frequently to provide support in this area. Advice related to such issues as compliance with EU procurement codes and the segmentation of projects into individual procurement contracts.

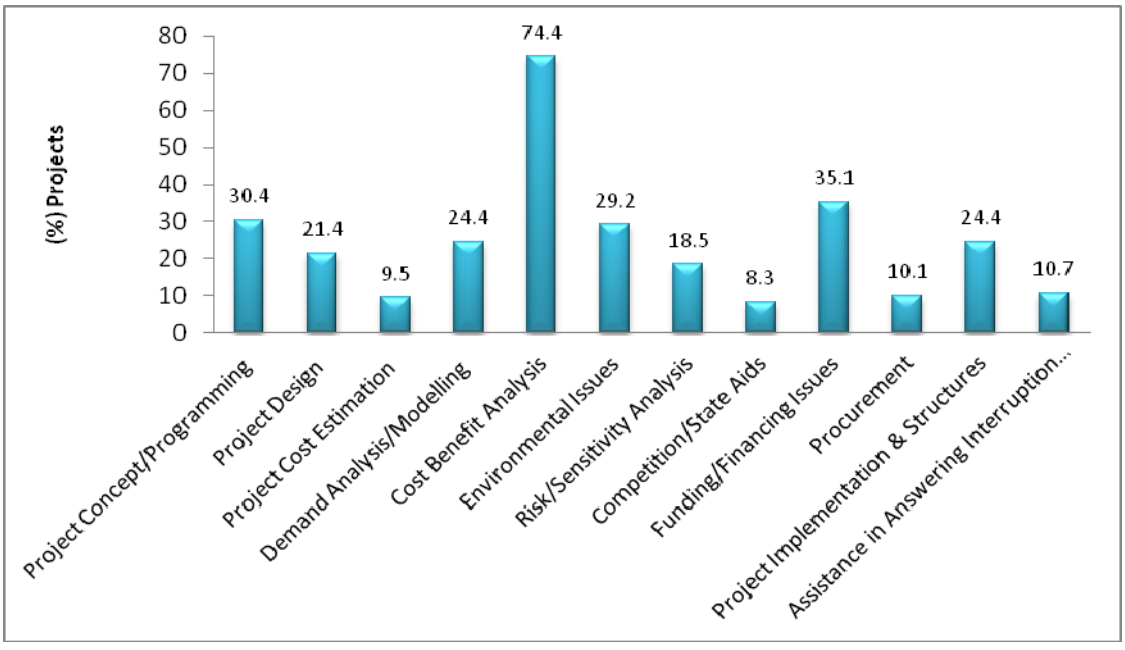
Project Implementation and Structures: This was a frequent topic for JASPERS at 24.4 per cent of projects. Advice related to both project implementation structures and the improvement of the institutional approach to project planning generally. Some horizontal issues derived from this area.

Table C3: Proportion of Projects on which JASPERS Support Occurred by Topic

Topic	Number of Projects on which Topic Occurred	Proportion of Projects (%)
Project Concept and Programming	51	30.4
Project Design	36	21.4
Project Cost Estimation	16	9.5
Demand Analysis & Modelling	41	24.4
Cost Benefit Analysis	125	74.4
Environmental Issues	49	29.2
Risk & Sensitivity Analysis	31	18.5
Competition and State Aids	14	8.3
Funding and Financing Issues	59	35.1
Procurement	17	10.1
Project Implementation & Structures	41	24.4

Source: AECOM
Note: relates to 168 projects

Figure C1: The Proportion of Projects on which JASPERS Support Occurred by Topic



In addition to support on specific topics, JASPERS was called on for general support to the project development and application. In particular, JASPERS was involved in Vetting of Overall Proposals & Feasibility Study in 85.7 per cent

of projects and Review or Preparation of Application Form in 93.5 per cent of projects. JASPERS were required to provide Assistance in Answering Interruption Queries much less frequently at 10.7 per cent of projects.

C3.4 Scope of JASPERS Support by Member State

As was indicated in Section B, the majority of major JASPERS assisted projects for which a the DG for Regional Policy Decision was made, were undertaken in Romania, Poland, Hungary and the Czech Republic. It is only for these Member States that analysis by topic could be regarded as representative of the underlying rate of occurrence. However, Table C4 presents the data for other Member States also, so that an overview can be obtained.

Some key findings to emerge from Table C4 are:

- The Czech Republic obtained support from JASPERS for a low proportion of projects across all topics. This reflects the finding Section C3.2 viz. that the average number of topics per project was extremely low in respect of the Czech Republic;
- Project Concept and Programming: Romania (34.0 per cent) , Poland (28.1 per cent) and Hungary (30.4 per cent) were close to the average for all Member States of 30.4 per cent;
- Project Cost Estimation: Support on this topic was extremely low for the Czech Republic (zero per cent) and Romania (3.8 per cent) but Poland at 15.3 per cent was substantially above the average of 9.5 per cent for all Member States;
- Demand Analysis and Modelling: 40.6 per cent of Polish projects availed of JASPERS support on this topic, which was well above the average for all Member States of 24.4 per cent;
- Cost Benefit Analysis: Romania availed of JASPERS support on this topic for at an extremely high level of 92.6 per cent of all projects, compared to the average of 74.4 per cent;
- Environmental Issues: Poland (40.6 per cent and Hungary 39.1 per cent) were above average of 29.2 per cent on this topic;
- Risk and Sensitivity Analysis: Poland (34.4 per cent) was much above and Romania (5.7 per cent) was much below the average of 18.5 per cent.
- Competition and State Aids: This was the one topic on which the Czech Republic (at 13.6 per cent) was above the average of 8.3 per cent;
- Funding and Financing Issues: Poland at 65.6 per cent had very high levels of support on this topic;
- Project Implementation and Structures: Romania at 45.3 per cent of projects made well above average (24.4) use of support on this topic.
- The proportion of Romanian projects which sought assistance in answering interruptions queries (20.8 per cent) was significantly above the average (10.7 per cent)

C3.5 Scope of JASPERS Support by Sector

As was indicated in Section B, the largest number of JASPERS assisted major projects for which a the DG for Regional Policy decision has been made was in the Water and Wastewater sector, comprising 58 projects out of 168 projects. Roads were the second most common sector comprising 34 projects, followed by Rail, Solid Waste and the Knowledge Economy. It is only for these sectors that analysis by topic could be regarded as representative of the underlying rate of occurrence.

Table C5 sets out the proportion of projects availing of JASPERS support by topic and by sector. Some key findings to emerge from Table C5 are:

- Project Concept and Programming: the Knowledge Economy (57.1 per cent) and Rail (42.9 per cent) sectors had much higher levels of JASPERS support than the average of 30.4 per cent. Water and Wastewater projects (19.0 per cent) and Solid Waste projects (17.6 per cent) had correspondingly lower rates of occurrence;
- Demand Analysis and Modelling: Compared to the average of 24.4 per cent, the Roads sector had very high levels of JASPERS support at 50 per cent of projects, while the Water and Wastewater projects had below average rates of support at 12.1 per cent;

- Cost Benefit Analysis: Support in respect of cost benefit analysis was well above the average of 74.4 per cent for the Roads sector (85.3 per cent) and the Water and Wastewater sector (87.9 per cent);
- Environmental Issues: Road (61.8 per cent) and Rail (42.9 per cent) availed of above average JASPERS support levels on these issues, while the Knowledge Economy (7.1 per cent), Solid Waste (zero per cent), and Water and Wastewater projects (12.1 per cent) had levels below the average of 29.2 per cent for all projects;
- Risk and Sensitivity Analysis: Only the Road Sector (50.0 per cent) made above average use of JASPERS advice on this topic. All other sectors were below the average of 18.5 per cent;
- Competition and State Aids: Support in respect of this topic was largely confined to the Knowledge Economy (57.1 per cent of projects) and Energy sectors, with the only other sectors availing of advice being the Rail and Water and Wastewater sectors and then in respect of a few projects only;
- Project Implementation and Structures: The Knowledge Economy at 64.3 per cent was well above average (24.4 per cent) in its use of advice on this topic;

Table C4: Proportion of Projects availing of JASPERS Assistance by Member State and Topic

	Bulgaria (%) Projects	Czech Republic (%) Projects	Estonia (%) Projects	Latvia (%) Projects	Lithuania (%) Projects	Poland (%) Projects	Romania (%) Projects	Slovakia (%) Projects	Slovenia (%) Projects	Malta (%) Projects	Hungary (%) Projects	Total (%) Projects
Project Concept and Programming	11.1	9.1	75.0	33.3	100.0	28.1	34.0	66.7	37.5	0.0	30.4	30.4
Project Design	11.1	0.0	25.0	33.3	50.0	21.9	22.6	50.0	0.0	33.3	34.8	21.4
Project Cost Estimation	44.4	0.0	0.0	50.0	0.0	15.6	3.8	0.0	0.0	0.0	8.7	9.5
Demand Analysis & Modelling	44.4	9.1	75.0	0.0	50.0	40.6	11.3	50.0	12.5	0.0	34.8	24.4
Cost Benefit Analysis	55.6	31.8	75.0	50.0	100.0	71.9	92.5	83.3	87.5	66.7	82.6	74.4
Environmental Issues	55.6	9.1	0.0	0.0	50.0	40.6	24.5	50.0	37.5	0.0	39.1	29.2
Risk & Sensitivity Analysis	22.2	0.0	75.0	66.7	50.0	34.4	5.7	50.0	12.5	0.0	13.0	18.5
Competition and State Aids	0.0	13.6	0.0	0.0	100.0	12.5	7.5	16.7	0.0	0.0	0.0	8.3
Funding and Financing Issues	44.4	9.1	25.0	50.0	50.0	65.6	37.7	50.0	0.0	0.0	17.4	35.1
Procurement	0.0	0.0	0.0	16.7	0.0	12.5	15.1	16.7	0.0	33.3	8.7	10.1
Project Implementation & Structures	11.1	13.6	25.0	0.0	100.0	15.6	45.3	0.0	12.5	0.0	17.4	24.4
Assistance in Answering Interruption Queries	0.0	4.5	0.0	33.3	0.0	3.1	20.8	33.3	0.0	33.3	0.0	10.7
No of Projects per Country	9	22	4	6	2	32	53	6	8	2	23	168

Source: AECOM

Table C5 Proportion of Projects availing of JASPERS Assistance by Sector and Topic

	Airports (%) Projects	Energy (%) Projects	Knowledge Economy (%) Projects	Ports and Waterways (%) Projects	Roads (%) Projects	Rail (%) Projects	Solid Waste (%) Projects	Urban Transport (%) Projects	Water & Waste Water (%) Projects	Other (%) Projects	Total (%) Projects
Project Concept and Programming	0.0	50.0	57.1	100.0	35.3	42.9	17.6	27.3	19.0	20.0	30.4
Project Design	0.0	100.0	14.3	100.0	14.7	19.0	23.5	9.1	22.4	0.0	21.4
Project Cost Estimation	0.0	0.0	7.1	0.0	5.9	4.8	11.8	27.3	12.1	0.0	9.5
Demand Analysis & Modelling	0.0	0.0	35.7	100.0	50.0	33.3	0.0	18.2	12.1	40.0	24.4
Cost Benefit Analysis	0.0	100.0	64.3	100.0	85.3	66.7	47.1	45.5	87.9	40.0	74.4
Environmental Issues	0.0	66.7	7.1	0.0	61.8	42.9	0.0	36.4	12.1	60.0	29.2
Risk & Sensitivity Analysis	0.0	0.0	14.3	0.0	50.0	23.8	5.9	9.1	6.9	20.0	18.5
Competition and State Aids	0.0	66.7	57.1	0.0	0.0	4.8	0.0	0.0	1.7	0.0	8.3
Funding and Financing Issues	0.0	0.0	42.9	0.0	41.2	38.1	23.5	27.3	39.7	20.0	35.1
Procurement	0.0	0.0	0.0	0.0	5.9	9.5	5.9	0.0	20.7	0.0	10.1
Project Implementation & Structures	0.0	100.0	64.3	0.0	11.8	9.5	17.6	9.1	24.1	40.0	24.4
Assistance in Answering Interruption Queries	0.0	16.7	0.0	0.0	8.8	4.8	5.9	0.0	19.0	20.0	10.7
No of Projects per Sector	1	6	14	1	34	21	17	11	58	5	168

Source: AECOM

C3.6 Scope of JASPERS Support by JASPERS Office

Of the 168 major JASPERS assisted projects for which a the DG for Regional Policy decision has been made, Bucharest provided assistance to 63 projects followed by Vienna with 59 projects and Warsaw with 43 projects. Luxembourg provided assistance to 3 projects. Table C6 shows the breakdown of the proportion of projects availing of JASPERS assistance by Office. Given the small number of projects under the remit of the Luxembourg office, this has been excluded from Table C6.

Some key findings to emerge from Table C6 are:

- Demand Analysis and Modelling: compared to the average of 24.4 per cent, the Warsaw Office provided high levels of JASPERS support at 39.5 per cent of projects, while the Bucharest Office provided below average rates of support at 15.9 per cent;
- Risk and Sensitivity Analysis: Only the Warsaw Office (44.2 per cent) provided above support levels on this topic. The other two Offices were below the average of 18.5 per cent;
- Competition and State Aids: Again, only the Warsaw Office (11.6 per cent) provided above average support levels on this topic. The other two Offices were below the average of 8.3 per cent;
- Funding and Financing Issues: at 60.5 per cent of projects, the Warsaw office provided levels of support well above the average of 35.1 per cent, with the other two Offices being below the average.
- Procurement: the Vienna Office at 5.1 per cent of projects provided levels of support below the average of 10.1 per cent, with the other two Offices above the average;
- Project Implementation and Structures: The Bucharest Office at 39.7 per cent was well above average (24.4 per cent) in its provision of advice on this topic;

Table C6: Proportion of Projects availing of JASPERS Assistance by Office and Topic

	Bucharest (%) of Projects	Vienna (%) of Projects	Warsaw (%) of Projects	Total (%) Projects
Project Concept and Programming	30.2	27.1	34.9	30.4
Project Design	22.2	18.6	25.6	21.4
Project Cost Estimation	9.5	3.4	18.6	9.5
Demand Analysis & Modelling	15.9	23.7	39.5	24.4
Cost Benefit Analysis	87.3	64.4	69.8	74.4
Environmental Issues	28.6	28.8	32.6	29.2
Risk & Sensitivity Analysis	7.9	11.9	44.2	18.5
Competition and State Aids	6.3	6.8	11.6	8.3
Funding and Financing Issues	38.1	15.3	60.5	35.1
Procurement	14.3	5.1	11.6	10.1
Project Implementation & Structures	39.7	13.6	16.3	24.4
Assistance in Answering Interruption Queries	17.5	5.1	7.0	10.7
No of Projects per Office	63	59	43	168

Source: AECOM

C3.7 Scope of JASPERS Support by the DG for Regional Policy Decision Date

Table C7 shows the number of JASPERS assisted projects that reached a Decision in each year from 2008 to 2011, and indicates what proportion of them sought assistance from JASPERS on each potential topic. Figure C1 highlights the changes in topics where JASPERS assistance was sought over time by analysing two groups of projects: those that reached a Decision in 2008 or 2009, and those that reached a Decision in 2010 or 2011.

Some key findings to emerge from Table C7 and Figure C1 are:

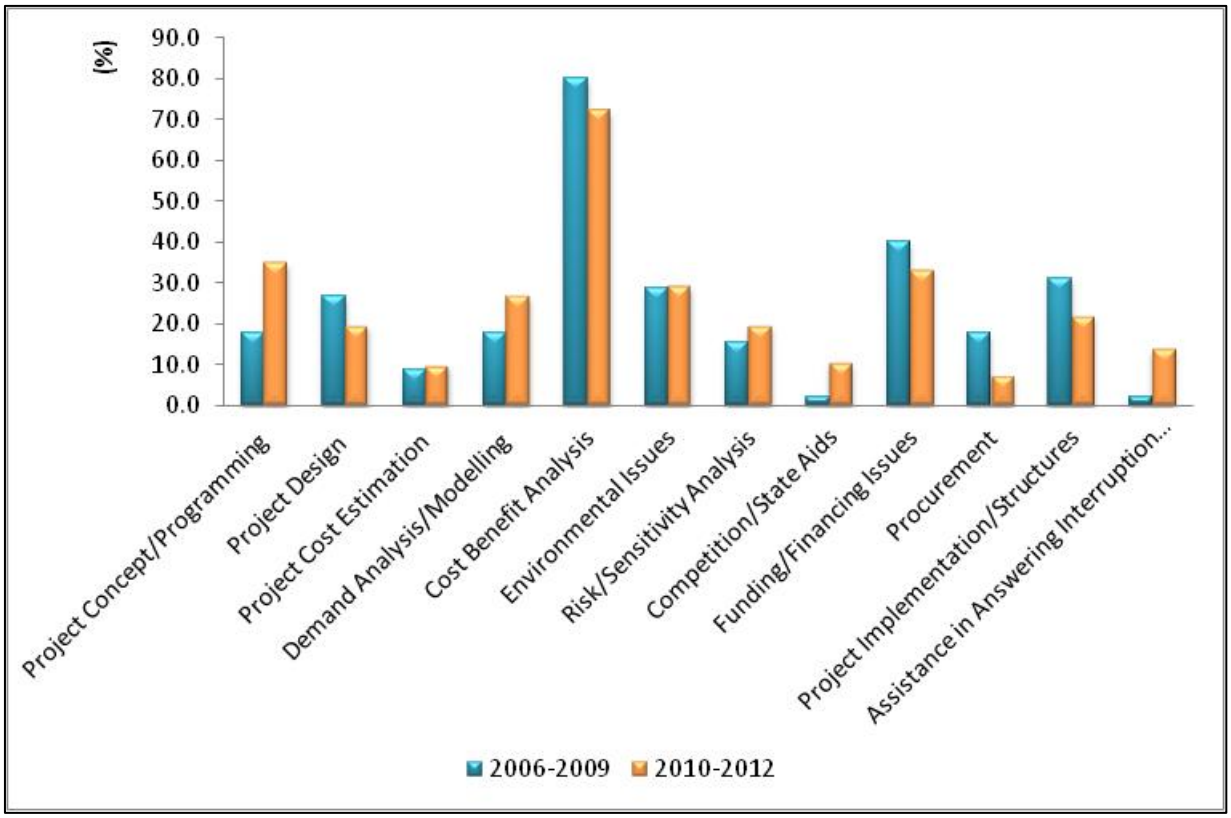
- Cost Benefit Analysis is consistently the most popular topic on which JASPERS assistance is sought. A full 90 per cent of the projects where a Decision was made in 2008 sought the assistance of JASPERS on this topic. The extent to which assistance is sought on Cost Benefit Analysis drops to approximately 75 per cent for subsequent years;
- A full 80 per cent of projects decided in 2008 had sought the assistance of JASPERS on Funding and Financing issues. The extent to which help was sought on this topic had declined sharply in later years, leading to an average of 35 per cent of projects seeking assistance on this topic over the full period. This will have been a relatively new area for Member States and JASPERS assistance with some early projects may have had a significant impact on the ability of Member States to deal with this topic;
- A similar pattern is observed in Procurement issues, where the share of projects seeking assistance has declined from 50 per cent to 4.7 per cent, and Project Implementation & Structures where the share of projects seeking assistance has declined from 70 per cent to 20.3 per cent. These issues (mainly based on the EU Procurement Directives and the need to establish new administrative structures to run new infrastructure) will have been very new to Member States and JASPERS assistance with early projects may have led to a significant increase in Member State capacity.
- None of the projects decided in 2008 had received JASPERS assistance with Project Design, Project Cost Estimation or Demand Analysis and Modelling. Only 10 per cent of them had received JASPERS assistance in the area of Project Concept and Programming. These projects will have been in development since before JASPERS started, so these areas of development may have been completed before JASPERS assistance was available;
- There is an increasing tendency for Member States to seek JASPERS assistance with Environmental Issues (increasing from 10 per cent of projects to 32.8 per cent of projects over the period from 2008 to 2011) and Risk & Sensitivity Analysis (increasing from 10 per cent to 21.9 per cent of projects over the period). This may reflect increased awareness of the importance of these issues, and their central place in the DG for Regional Policy assessment of applications.

Table C7 Proportion of Projects availing of JASPERS Assistance by the DG for Regional Policy Decision Date and Topic

	2008 (%) Projects	2009 (%) Projects	2010 (%) Projects	2011 (%) Projects	Total (%) Projects
Project Concept and Programming	10.0	20.0	44.8	25.0	30.4
Project Design	0.0	34.3	20.7	18.8	21.4
Project Cost Estimation	0.0	11.4	12.1	7.8	9.5
Demand Analysis & Modelling	0.0	22.9	25.9	28.1	24.4
Cost Benefit Analysis	90.0	77.1	74.1	70.3	74.4
Environmental Issues	10.0	34.3	25.9	32.8	29.2
Risk & Sensitivity Analysis	10.0	17.1	17.2	21.9	18.5
Competition and State Aids	0.0	2.9	13.8	7.8	8.3
Funding and Financing Issues	80.0	28.6	39.7	28.1	35.1
Procurement	50.0	8.6	10.3	4.7	10.1
Project Implementation & Structures	70.0	20.0	22.4	20.3	24.4
Assistance in Answering Interruption Queries	0.0	2.9	17.2	10.9	10.7
No of Projects per Project Size	10	35	58	64	168

Source: AECOM

Figure C1. Distribution of Projects availing of JASPERS Assistance over Time and Topic



Source: AECOM

C3.8 The Scope of JASPERS Support by Project Size

Over half of the 168 JASPERS assisted major projects for which a DG for Regional Policy Decision has been made, were valued in excess of €150m. An additional 38 projects fell in the €100-150m category, 57 projects in the €50-€100m category while 21 projects were valued at less than €50m. Table 6.8 and Figure 6.2 show the extent to which projects of different sizes sought the assistance of JASPERS on different topics.

Some key findings to emerge from Table 6.8 and Figure 6.2 are:

- Larger projects greater than €150m were more likely than small projects to have availed of support in relation to:
  - Project Concept and Programming (40.4 per cent of projects);
  - Project Cost Estimation (13.5 per cent of projects);
  - Demand Analysis and Modelling (48.1 per cent);
  - Cost Benefit Analysis (82.7 per cent);
  - Environmental issues (51.9 per cent);
  - Risk and Sensitivity Analysis (36.5 per cent); and
  - Funding and Financing Issues (48.1 per cent);

- Smaller projects less than €150m were more likely to have availed of support than large projects in relation to:
  - Project Design (25.0 per cent of projects);
  - Competition and State Aids (8.6 per cent of projects);
  - Procurement (11.2 per cent of projects); and
  - Project Implementation and Structures (25.9 per cent)

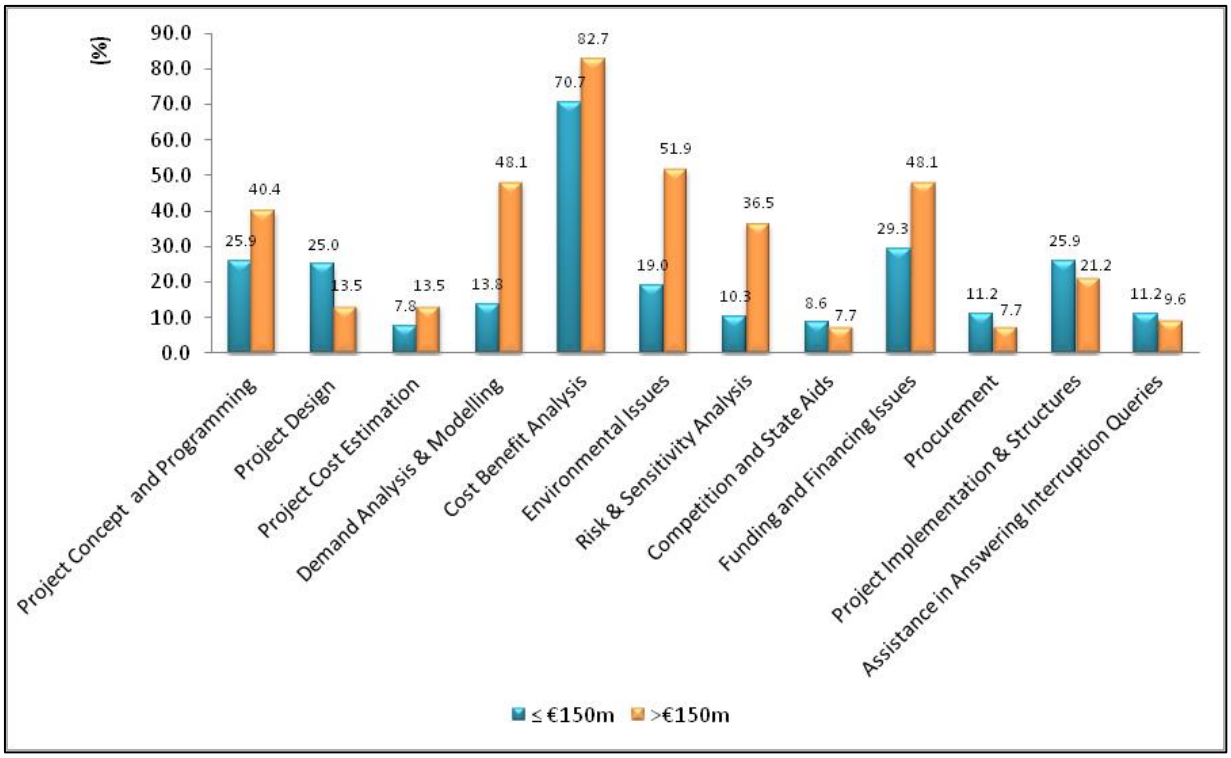
It can be seen that, in general terms, smaller projects had greater need of support for topics where JASPERS were required to provide lower levels of support. This means that overall large projects made wider use of JASPERS support.

Table C8 Proportion of Projects availing of JASPERS Assistance by Project Size and Topic

	≤ €50m (%) of Projects	>€50m ≤€100m (%) of Projects	>€100m ≤€150m (%) of Projects	>€150m ≤€200m (%) of Projects	>€200m (%) of Projects	Total (%) of Projects
Project Concept and Programming	14.3	22.8	36.8	56.3	33.3	30.4
Project Design	23.8	24.6	26.3	18.8	11.1	21.4
Project Cost Estimation	4.8	10.5	5.3	12.5	13.9	9.5
Demand Analysis & Modelling	9.5	14.0	15.8	50.0	47.2	24.4
Cost Benefit Analysis	52.4	66.7	86.8	81.3	83.3	74.4
Environmental Issues	4.8	24.6	18.4	31.3	61.1	29.2
Risk & Sensitivity Analysis	9.5	5.3	18.4	31.3	38.9	18.5
Competition and State Aids	4.8	12.3	5.3	12.5	5.6	8.3
Funding and Financing Issues	23.8	31.6	28.9	50.0	47.2	35.1
Procurement	4.8	15.8	7.9	6.3	8.3	10.1
Project Implementation & Structures	19.0	24.6	31.6	43.8	11.1	24.4
Assistance in Answering Interruption Queries	4.8	10.5	15.8	18.8	5.6	10.7
No of Projects per Size Category	21	57	38	16	36	168

Source: AECOM

Figure C2 Proportion of Projects availing of JASPERS Assistance by Project Size and Topic



Source: AECOM

C3.9 Conclusions

The scale of JASPERS support to projects was extensive. Overall, the average number of topics per project was 4.8, while the average number of meetings/visits was 5.3. The Czech Republic was notable for availing of relatively lower levels of JASPERS assistance, with an average of 2.9 topics per project and 2.7 meetings/site visits per project.

There is a disparity in the scale of JASPERS support required by different sectors. Solid Waste projects had relatively few topics assisted on by JASPERS, averaging 3.4 compared to the Knowledge Economy or Road sectors both of which sought advice on an average of 5.4 topics. The Knowledge Economy sector also appears to have required a greater level of JASPERS assistance in terms of the number of meetings attended by JASPERS, which averaged 8.1.

Over time it appears that there has been little change in the scale of JASPERS effort, however it is evident that larger projects require assistance in relation to a higher number of topics and the number of meetings attended by JASPERS is larger.

With regard to the scope of JASPERS supports, Cost Benefit Analysis was the topic on which JASPERS support was most frequently sought occurring in 74.4 per cent of all projects. This was followed by Funding and Financing Issues at 35.1 per cent of projects, Project Concept and Programming at 30.4 per cent, and Environmental Issues at 29.2 per cent.

The topics for which JASPERS Support was least required were Competition and State Aids at 8.3 per cent of projects, Project Cost Estimation at 9.5 per cent and Procurement at 10.1 per cent.

The Czech Republic required support for a low proportion of projects across all topics. With regard to the topics on which support was most frequently sought, advice on Cost Benefit Analysis was sought by Romania in respect of

92.6 per cent of all that Member State's projects. Poland availed of JASPERS support on Funding and Financing issues for 65.6 per cent of their projects. Hungary and Poland were above average in their use of support on Environmental Issues.

With regard to sectors, the Knowledge Economy sector had high levels of support in relation to Project Concept and Programming (57.1 per cent) and Competition and State Aids (also 57.1 per cent). Roads had high levels of support generally, but particularly in relation to Cost Benefit Analysis (85.3 per cent of projects), Environmental issues (61.8 per cent) and Demand Analysis and Modelling (50.0 per cent). Rail was an intensive user of support for Cost Benefit Analysis (66.7 per cent of projects), Environmental Issues (42.9 per cent) and Project Concept and Programming (42.9 per cent). Solid Waste projects were also intensive users of advice on Cost Benefit Analysis. The Water and Wastewater sector was a generally high user of advice, but particularly on Cost Benefit (87.9 per cent) and Funding and Financing Issues (39.7 per cent).

As might be expected, all of the JASPERS offices provided a high level of advice on Cost Benefit issues. The Bucharest office was particularly involved in providing advice on Project Implementation and Structures (39.7 per cent of projects) and Funding and Financing Issues (38.1 per cent of projects). For the Vienna office, the major advisory topics were Environmental Issues (28.8 per cent of projects) and Project Concept and Programming (27.1 per cent). With regard to the Warsaw office, the major involvement was with Funding and Financing Issues (35.1 per cent) and Project Concept and Programming (30.4 per cent).

There was a tendency for the relative support on some topics to decline over time. Distinguishing between the DG for Regional Policy Decision periods 2006-2009 and 2010-2012, the latter period saw a decline in support relating to Project Design, Cost Benefit Analysis, Funding and Financing Issues, Procurement and Project Implementation and Structures Issues. In contrast, there was an increase in support in relation to Project Concept and Programming, Demand Analysis and Modelling, Risk and Sensitivity Analysis, and Competition and State Aids.

Larger projects of greater than €150m tended to have greater need for support across a range of topics than smaller projects.

C4: Analysis of the DG for Regional Policy Interruptions

C4.1 Introduction

This Sub-Section of the Report describes the topics which were the subject of Interruption letters issued by the DG for Regional Policy. It begins with a brief analysis of the number of such topics per project and this is followed by an analysis of the scope of the Interruptions in terms of the range of topics.

C4.2 The Scale of the DG for Regional Policy Interruptions

The average number of interruption topics raised by the DG for Regional Policy's across a range of factors is outlined in Table C9.

The number of Interruptions per project averaged 3.4 overall, as can be seen, the average number of interruption topics varied significantly across Member States and JASPERS Office. Polish projects had relatively low levels of interruption with an average of 2.8 topics raised by the DG for Regional Policy. This is in contrast to Hungarian projects where the number of interruptions was substantially higher at 4.4 topics on average. These trends are also reflected in the projects under the remit of the Vienna and Warsaw offices which would have accounted for the majority of Polish and Hungarian projects respectively.

Disparities in the scale of the DG for Regional Policy Interruptions are also seen across sectors. The Knowledge Economy had the lowest number of interruption topics with an average of 2.4, compared to Solid Waste which had 4.8 interruption topics on average. It may be noted that Solid Waste had relatively few topics assisted on by JASPERS while the Knowledge Economy sought advice on a substantial number of topics, as outlined in Section C3.

Table C9 also illustrates that the average number of topic raised by the DG for Regional Policy has increased with project size but appears to have declined over time.

Table C9: Average No of Topics raised in Interruption Letters.

Projects	Average No of Topics raised in Interruption Letters
Member States	
Czech Republic	3.1
Hungary	4.4
Poland	2.8
Romania	3.3
All other Member States	3.5
Sectors	
Water Waste Water	3.0
Roads	3.3
Rail	3.4
Knowledge Economy	2.4
All Other Sectors	4.9
Solid Waste	4.8
JASPERS Office	
Bucharest	3.5
Vienna	3.9
Warsaw	2.8
Project Size	
<=€150m	3.4
>€150m	3.5
DG for Regional Policy Decision Year	
<=2009	4.1
>=2010	3.7
N	112

C4.3 Scope of the DG for Regional Policy Interruptions

Project Concept and Programming: This topic was a frequent area for the DG for Regional Policy interruptions at 31.3 per cent of projects. Interruptions were generally in relation to a lack of precise project objectives. In many cases, the DG for Regional Policy sought clarifications in relation to the role of the project within national and regional policies and strategies.

Project Design: This topic occurred in 41.1 per cent of projects. A number of interruptions were focused on project capacity, while issues around inappropriate option analysis, were also common.

Project Cost Estimation: This topic was raised by the DG for Regional Policy in 17.9 per cent of projects. These interruptions largely focused on insufficient cost details and the need to benchmark the projects costs to ensure that they were appropriate.

Demand Analysis and Modelling: At 17 per cent the DG for Regional Policy interruptions on this topic were relatively infrequent. Issues raised largely related to modelling demand which was particularly evident among transport projects. The use of non standardised modelling tools often resulted in the DG for Regional Policy seeking clarifications on modelling calculations.

Cost Benefit Analysis: At 43.8 per cent, this was a common topic for the DG for Regional Policy interruptions. The nature of interruptions varied significantly across projects including issues relating to the quantification of benefits, the use of appropriate parameter values and adopting EU Cost Benefit Analysis methodology.

Environmental Issues: At 56.3 per cent this topic was raised most frequently by the DG for Regional Policy. Interruptions largely related the impact of projects on Natura 2000 sites. A number of projects predominately relating to Solid Waste were interrupted due to their failure to undertake an EIS under the EIA Directive.

Risk and Sensitivity Analysis: This topic was raised in 29.5 per cent of projects. Interruptions on this topic concerned the lack of appropriate scenario analysis. In some cases calculations were incorrectly applied which was particularly evident for Monte Carlo simulations.

Competition and State Aids: This was a very infrequent topic for the DG for Regional Policy interruptions at 5.4 per cent. Competition and State Aids topics were the least frequent interruptions among projects. Where interruptions did occur, the majority of projects concerned Research and Development Infrastructure. As outlined previously Research and Development centres may carry out commissioned research for firms or may license Intellectual Property that they develop to firms. In either case the fees or royalties charged will be a cost for these firms, and the level of this cost could be reduced by the fact that the research centre has received public funding. This would constitute an advantage for these firms, so the question to State Aid arises in these projects.

Funding and Financing Issues: This topic was raised by the DG for Regional Policy in 51.8 per cent of projects, making it the second most common interruption topic. A significant number of interruptions on this topic related to funding gap calculations and the treatment of VAT as an eligible cost.

Procurement: At 10.7 per cent of projects, the DG for Regional Policy interruptions were relatively infrequent in this area. Interruptions on this basis generally occurred where contracts had been awarded at the time of the DG for Regional Policy Decision and clarifications were sought in relation to the number of applicants and tenders' price offers. In some instances information on the relationship between public bodies and private contractors was required.

Project Implementation and Structures: This was a frequent topic for the DG for Regional Policy at 31.3 per cent of projects. Interruptions largely related to funding of project implementation teams and issues relating to overly optimistic project implementation timetables.

Table C9 Distribution of Projects subject to the DG for Regional Policy Interruption by Project Planning Process Topics

	No of Projects	Total (%) Projects
Project Concept and Programming	35	31.3
Project Design	46	41.1
Project Cost Estimation	20	17.9
Demand Analysis & Modelling	19	17.0
Cost Benefit Analysis	49	43.8
Environmental Issues	63	56.3
Risk & Sensitivity Analysis	33	29.5
Competition and State Aids	6	5.4
Funding and Financing Issues	58	51.8
Procurement	12	10.7
Project Implementation & Structures	35	31.3
No of Projects	112	

Capabilities on project:
Economics

Source: AECOM

*Of the 116 projects for which Interruption Letters were available, substantive issues only arose in 112 Projects.

C4.4 Scope of the DG for Regional Policy Interruptions by Member State

Of the 112 projects which were interrupted and for which data are available, the largest number of projects was in Hungary comprising 23 of the 112 projects. This was followed closely by Poland with 22 interrupted projects, Czech Republic with 20 interrupted projects and Romania with 16. It is only for these Member States that analysis by topic could be regarded as yielding estimates representative of the underlying rate of occurrence.

Table C10 sets out the proportion of projects that were interrupted by Member State and by interruption topic. Some key findings to emerge from Table C10 are

- Project Concept and Programming: The Czech Republic and Poland had a similar proportion of projects interrupted on this topic as the average.
- Project Design: The Czech Republic had a relatively low proportion of projects interrupted on this topic (20.0 per cent) compared to the average of 41.1 per cent.
- Project Cost Estimation: In contrast, the Czech Republic had an above average proportion of projects interrupted on this topic (35.0 per cent of projects) as against an average of 17.9 per cent.
- Demand Analysis and Modelling: Romania had no projects recorded as interrupted on this topic and the Czech Republic had relatively few (10.0 per cent). In contrast, Hungary was well above average at 26.1 per cent.
- Cost Benefit Analysis: Hungary was well above the average of 43.8 per cent of projects, with 60.9 per cent of their projects having been interrupted on this topic. The other three Member States were somewhat below the average.
- Environmental Issues: This was the topic which caused most interruptions overall. However, Poland had relatively few interruptions on this topic (27.3 per cent) compared to the average of 56.3 per cent.
- Risk and Sensitivity Analysis: There was significant variation of experience in relation to this topic. For the Czech Republic, only 5.0 per cent of projects were interrupted on this topic as against 50.0 per cent for Poland and 43.5 per cent for Hungary.
- Competition and State Aids: The Czech Republic was well above the average of 5.4 per cent of projects at 20.0 per cent.
- Funding and Financing Issues: Poland (31.8 per cent) and the Czech Republic (40.0 per cent) were somewhat below the average of 51.8 per cent of projects interrupted on this topic;
- Procurement: Romania (zero per cent) and the Czech Republic (5.0 per cent) had few projects interrupted compared to the average of 10.7 per cent. Hungary had a high level of interruptions relatively on this topic (26.1 per cent);
- Project Implementation and Structures: Romania had a very high level of interruptions on this topic (68.8 per cent of projects), with Poland well below the average of 31.3 per cent on 13.6 per cent.

C4.5 Scope of the DG for Regional Policy Interruptions by Sector

An analysis of interruptions across the various sectors revealed that the largest share of projects interrupted by the DG for Regional Policy were in the Water and Waste Water sector comprising 34 of the112 interrupted projects. This was followed by Roads and Rail with 26 and 17 interrupted projects respectively. The Knowledge Economy was also subject to significant interruptions accounting for approximately 12 per cent of interrupted projects. It is only for these sectors that analysis by topic could be regarded as yielding estimates representative of the underlying rate of occurrence.

Some key findings to emerge from Table C11 are:

- Knowledge Economy projects generally were subject to fewer interruptions across the full range of topics, reflecting the low level of interruption topics for this sector generally;
- Project Concept and Programming: The Roads (19.2 per cent), Knowledge Economy (23.1 per cent) and the Water and Wastewater sector (20.6 per cent) all had proportionately fewer interruptions on this topic than the average of 31.3 per cent. Rail projects were above average at 41.2 per cent;

- Project Design: Knowledge Economy sector projects were subject to fewer interruptions (23.1 per cent) than the average of 41.1 per cent. The other three sectors are closer to the average;
- Project Cost Estimation: Knowledge Economy sector projects were subject to fewer interruptions (7.7 per cent) than the average of 17.9 per cent. The other three sectors are closer to the average;
- Demand Analysis and Modelling: Water and Wastewater (5.9 per cent) and Knowledge Economy projects (7.7 per cent) had a lower proportion of interruptions than the average (17.0 per cent) on this topic;
- Cost Benefit Analysis: Rail projects (58.8 per cent) had a relatively higher level of interruptions than the average (43.8 per cent) on this topic.
- Environmental Issues: This was the topic which formed the basis for more interruptions than any other. Within this context, the proportion of Road projects interrupted was very high at 80.8 per cent as compared with the average of 56.3 per cent. Rail project were below average on this topic at 29.4 per cent.
- Risk and Sensitivity Analysis: Rail projects had a higher level of interruptions (41.2 per cent) than the average of 29.5 per cent. The rate for the Knowledge Economy was particularly low at 7.7 per cent.
- Competition and State Aids: Knowledge Economy projects had a considerably higher level of interruptions, 30.8 per cent of projects compared to the average of 5.4 per cent.
- Funding and Financing Issues: Knowledge Economy (30.8 per cent) and Water and Wastewater projects (35.3 per cent) had fewer interruptions than the average of 51.8 per cent.
- Procurement: There were no recorded interruptions for either Rail or. Knowledge Economy projects in relation to this topic. Roads at 15.4 per cent were above the average of 10.7 per cent of projects;
- Project Implementation and Structures: Rail projects (17.6 per cent) were below the average of 31.3 per cent, but other sectors were close to the average,

Table C10 Proportion of Projects interrupted by the DG for Regional Policy by Country and Topic

	Bulgaria (%) Projects	Czech Republic (%) Projects	Estonia (%) Projects	Latvia (%) Projects	Lithuania (%) Projects	Poland (%) Projects	Romania (%) Projects	Slovakia (%) Projects	Slovenia (%) Projects	Malta (%) Projects	Hungary (%) Projects	Total (%) Projects
Project Concept and Programming	37.5	35.0	0.0	66.7	0.0	31.8	12.5	80.0	28.6	0.0	26.1	31.3
Project Design	37.5	20.0	0.0	33.3	50.0	50.0	50.0	60.0	42.9	0.0	47.8	41.1
Project Cost Estimation	0.0	35.0	0.0	0.0	0.0	13.6	18.8	60.0	14.3	0.0	13.0	17.9
Demand Analysis & Modelling	0.0	10.0	0.0	50.0	50.0	13.6	0.0	40.0	14.3	100.0	26.1	17.0
Cost Benefit Analysis	75.0	35.0	0.0	33.3	50.0	31.8	25.0	100.0	42.9	0.0	60.9	43.8
Environmental Issues	50.0	65.0	50.0	50.0	0.0	27.3	75.0	80.0	57.1	0.0	69.6	56.3
Risk & Sensitivity Analysis	50.0	5.0	0.0	0.0	0.0	50.0	18.8	60.0	14.3	0.0	43.5	29.5
Competition and State Aids	0.0	20.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	4.3	5.4
Funding and Financing Issues	75.0	40.0	50.0	66.7	50.0	31.8	56.3	40.0	57.1	0.0	69.6	51.8
Procurement	0.0	5.0	0.0	0.0	0.0	9.1	0.0	0.0	42.9	0.0	26.1	10.7
Project Implementation & Structures	62.5	25.0	0.0	0.0	0.0	13.6	68.8	0.0	28.6	100.0	34.8	31.3
No of Projects	8	20	2	6	2	22	16	5	7	1	23	112

Source: AECOM

Table C11 Proportion of Projects interrupted by the DG for Regional Policy by Sector and Topic

	Airports (%) Projects	Energy (%) Projects	Knowledge Economy (%) Projects	Ports and Waterways (%) Projects	Rail (%) Projects	Roads (%) Projects	Solid Waste (%) Projects	Urban Transport (%) Projects	Water & Wastewater (%) Projects	Other (%) Projects	Total (%) Projects
Project Concept and Programming	100.0	0.0	23.1	0.0	41.2	19.2	50.0	66.7	20.6	80.0	31.3
Project Design	0.0	0.0	23.1	100.0	35.3	30.8	75.0	50.0	44.1	80.0	41.1
Project Cost Estimation	0.0	0.0	7.7	100.0	23.5	15.4	25.0	0.0	17.6	40.0	17.9
Demand Analysis & Modelling	0.0	0.0	7.7	0.0	29.4	23.1	0.0	33.3	5.9	60.0	17.0
Cost Benefit Analysis	0.0	0.0	23.1	100.0	58.8	34.6	37.5	83.3	47.1	40.0	43.8
Environmental Issues	0.0	100.0	46.2	100.0	29.4	80.8	100.0	16.7	55.9	20.0	56.3
Risk & Sensitivity Analysis	0.0	0.0	7.7	100.0	41.2	19.2	37.5	50.0	26.5	80.0	29.5
Competition and State Aids	0.0	0.0	30.8	0.0	0.0	0.0	0.0	16.7	0.0	20.0	5.4
Funding and Financing Issues	100.0	100.0	30.8	100.0	58.8	57.7	62.5	100.0	35.3	60.0	51.8
Procurement	0.0	0.0	0.0	0.0	0.0	15.4	12.5	33.3	11.8	20.0	10.7
Project Implementation & Structures	0.0	0.0	38.5	0.0	17.6	30.8	50.0	66.7	29.4	20.0	31.3
No of Projects	1	1	13	1	17	26	8	6	34	5	112

Source: AECOM

Capabilities on project:
Error! Reference source not found.

C4.6 Scope of the DG for Regional Policy Interruptions by JASPERS Office

An analysis of Interruptions according to JASPERS Office reveals that the greatest number of interruptions occurred in projects under the remit of the Vienna office were 55 projects were subject to interruption. This was followed by the Warsaw and Bucharest office with 31 and 24 projects interrupted respectively. The Luxembourg office had only 2 projects interrupted and so were excluded from the analysis. Some of the key findings to emerge from Table C12 are:

- Project Concept and Programming: the Bucharest Office had 20.8 per cent of its projects interrupted on this topic, below the average of 31.3 per cent. The other two offices were slightly above average;
- Project Cost Estimation: the Warsaw Office had a particularly low number of projects interrupted on this topic (9.7 per cent), compared to the average of 17.9 per cent;
- Demand Analysis and Modelling: compared to an average of 17.0 per cent of projects, the Bucharest Office had no projects that were interrupted on this topic;
- Environmental Issues: while this was the topic in which projects were most frequently interrupted at 56.3 per cent, the Warsaw Office was considerably below the average at 32.3 per cent;
- Competition and State Aids: the Bucharest Office had no interruptions on this topic;
- Funding and Financing Issues: Compared to the average of 51.8 per cent, the Bucharest Office had an above average proportion of projects interrupted (62.5 per cent) and the Warsaw Office a below average (41.9 per cent);
- Procurement: the Bucharest Office had no interruptions on this topic, while the Vienna Office had an above average proportion at 18.2 per cent;
- Project Implementation and Structures: there was a considerable difference between the Bucharest Office (66.7 per cent of projects) and the Warsaw Office (9.7 per cent of projects) on this topic.

Table C12 Proportion of Projects interrupted by the DG for Regional Policy by JASPERS Office and Topic

	Bucharest (%) Projects	Vienna (%) Projects	Warsaw (%) Projects	Total (%) Projects
Project Concept and Programming	20.8	34.5	35.5	31.3
Project Design	45.8	38.2	41.9	41.1
Project Cost Estimation	12.5	25.5	9.7	17.9
Demand Analysis & Modelling	0.0	20.0	22.6	17.0
Cost Benefit Analysis	41.7	52.7	32.3	43.8
Environmental Issues	66.7	67.3	32.3	56.3
Risk & Sensitivity Analysis	29.2	27.3	35.5	29.5
Competition and State Aids	0.0	9.1	3.2	5.4
Funding and Financing Issues	62.5	54.5	41.9	51.8
Procurement	0.0	18.2	6.5	10.7
Project Implementation & Structures	66.7	27.3	9.7	31.3
No of Projects	24	55	31	112

Source: AECOM

C4.7 Scope of the DG for Regional Policy Interruptions by the DG for Regional Policy Decision Year

The Analysis of Table C13 and Figure C3 reveals:

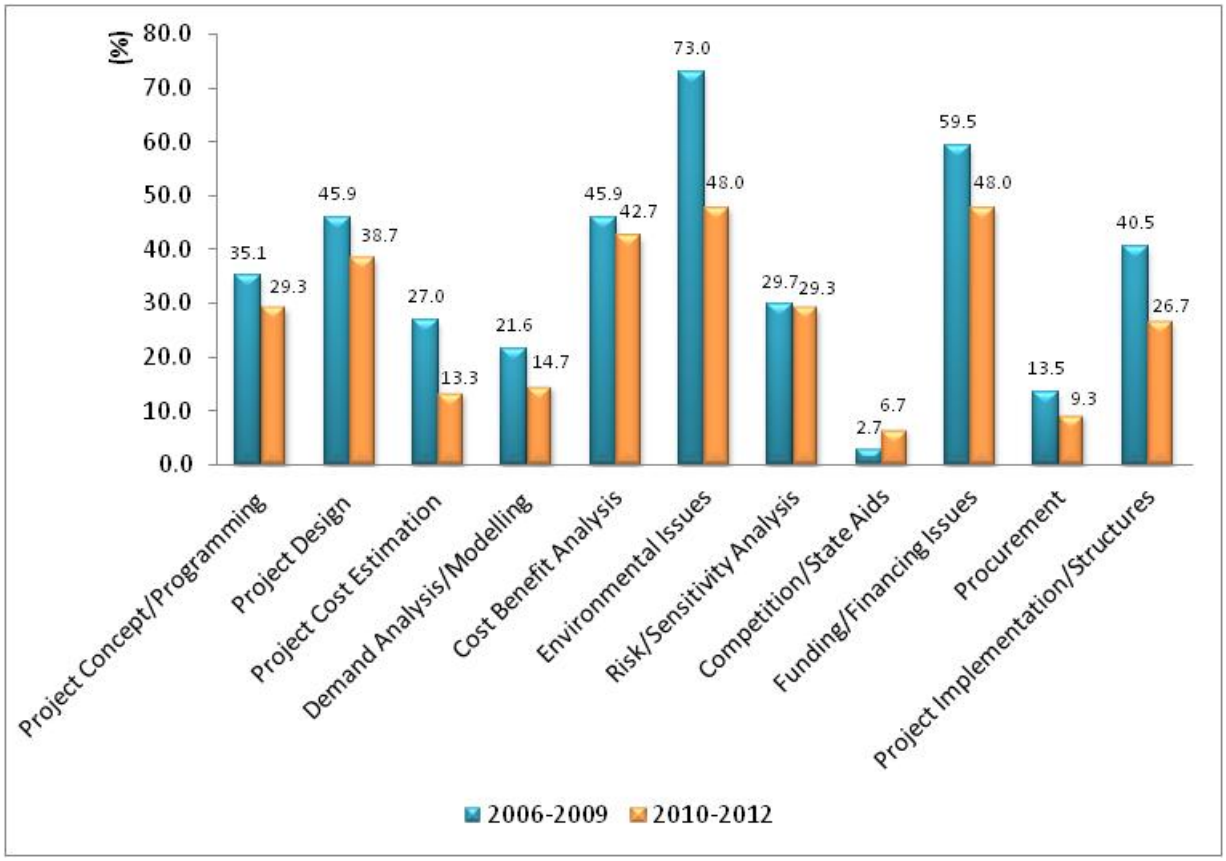
- While Environmental Issues was the topic on which the highest proportion of projects was interrupted for the period as a whole (56.3 per cent), there was a marked decline between 2006-2009 (73.0 per cent) and 2010-2012 (48.0 per cent);
- Other topics that declined significantly over the period were Funding and Financing Issues (from 59.5 to 48.0 per cent) and Project Implementation and Structures (from 40.5 to 26.7 per cent);
- As there was a decline in the average number of topics on which projects were interrupted over the two periods, from 4.1 topics to 3.7, the proportion of projects interrupted on each topic declined with the exception of Competition and State Aids, which rose from 2.7 per cent to 6.7 per cent.

Table C13 Proportion of Projects interrupted by the DG for Regional Policy by the DG for Regional Policy Decision Year and Topic

	2008 (%) of Projects	2009 (%) of Projects	2010 (%) of Projects	2011 (%) of Projects	Total (%) Projects
Project Concept and Programming	42.9	33.3	36.4	24.4	31.3
Project Design	14.3	53.3	27.3	46.3	41.1
Project Cost Estimation	0.0	33.3	15.2	12.2	17.9
Demand Analysis & Modelling	28.6	20.0	18.2	12.2	17.0
Cost Benefit Analysis	57.1	43.3	60.6	29.3	43.8
Environmental Issues	71.4	73.3	42.4	51.2	56.3
Risk & Sensitivity Analysis	14.3	33.3	33.3	26.8	29.5
Competition and State Aids	14.3	0.0	0.0	12.2	5.4
Funding and Financing Issues	14.3	70.0	54.5	43.9	51.8
Procurement	0.0	16.7	12.1	7.3	10.7
Project Implementation & Structures	71.4	33.3	18.2	34.1	31.3
No of Projects per Year	7	30	33	41	112

Source: AECOM

Figure C3 Proportion of Projects interrupted by the DG for Regional Policy by the DG for Regional Policy Decision Year and Topic



Source: AECOM

C4.8 Scope of the DG for Regional Policy Interruptions by Project Size

Approximately one third of the 112 projects which were subject to the DG for Regional Policy interruptions were valued in excess of €150m, with two thirds over €150m. Some of the key findings to emerge from Table C14 and Figure C4 are:

- Larger projects greater than €150m were more likely than smaller projects to have been interrupted in relation to
  - Environmental issues (63.2 per cent of projects versus 52.7 per cent);
  - Risk and Sensitivity Analysis (34.2 per cent versus 27.0 per cent);
  - Funding and Financing Issues (57.9. per cent versus 48.6 per cent));
  - Procurement (13.2 per cent versus 9.5 per cent); and
  - Project Implementation and Structures (39.5 per cent versus 27.0 per cent)

- Smaller projects less than €150m were more likely to be interrupted in relation to:
  - Project Concept and Programming (33.8 per cent versus 26.3 per cent)
  - Project Design (41.9 per cent versus 39.5 per cent);
  - Demand Analysis and Modelling (17.6 per cent versus 15.8 per cent); and
  - Cost Benefit Analysis (47.3 per cent versus 36.8 per cent);
  - Competition and State Aids (6.8 per cent versus 2.6 per cent);

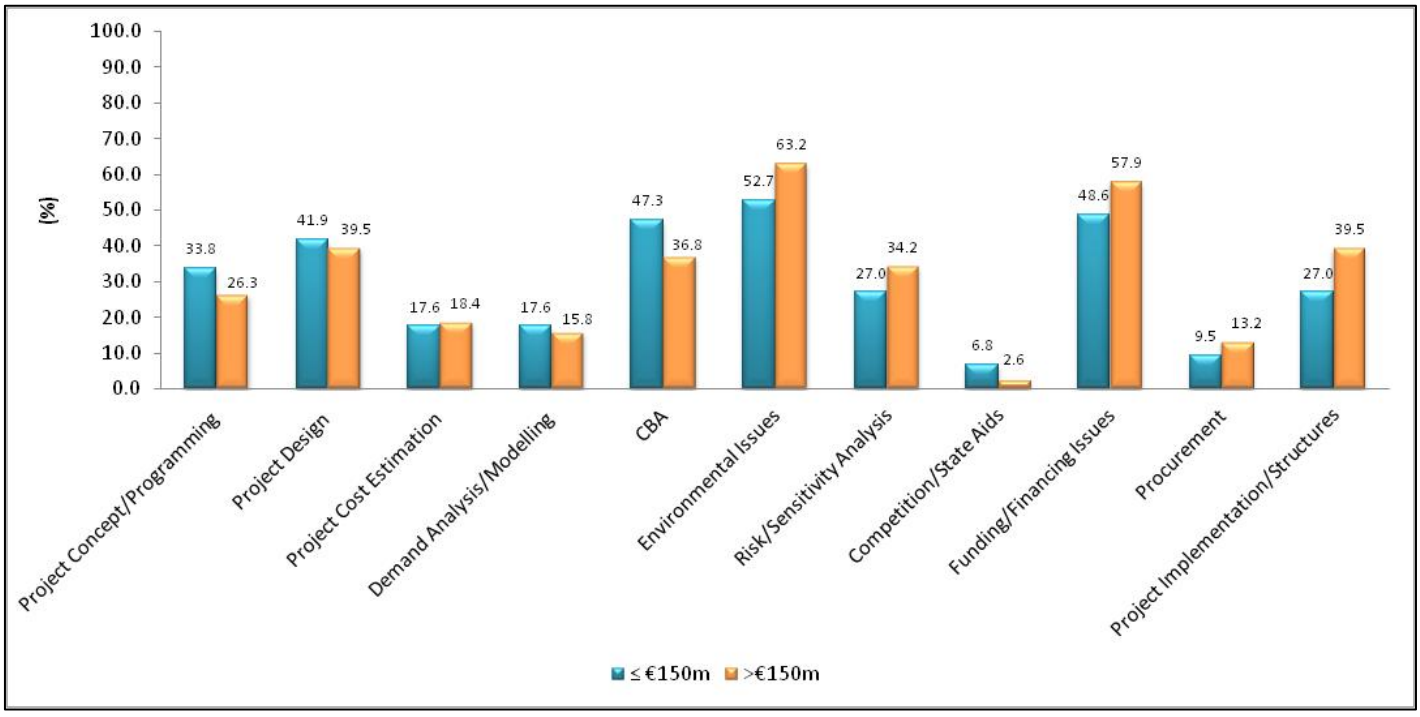
.

Table C14 Proportion of Projects interrupted by the DG for Regional Policy by Project Size and Topic

	≤ €50m (%) Projects	>€50m ≤€100m (%) Projects	>€100m ≤€150m (%) Projects	>€150m ≤€200m (%) Projects	>€200m (%) Projects	Total (%) Projects
Project Concept and Programming	50.0	34.2	25.0	50.0	17.9	31.3
Project Design	58.3	36.8	41.7	60.0	32.1	41.1
Project Cost Estimation	41.7	13.2	12.5	20.0	17.9	17.9
Demand Analysis & Modelling	8.3	21.1	16.7	20.0	14.3	17.0
Cost Benefit Analysis	41.7	55.3	37.5	60.0	28.6	43.8
Environmental Issues	75.0	44.7	54.2	70.0	60.7	56.3
Risk & Sensitivity Analysis	16.7	36.8	16.7	60.0	25.0	29.5
Competition and State Aids	0.0	5.3	12.5	0.0	3.6	5.4
Funding and Financing Issues	75.0	39.5	50.0	50.0	60.7	51.8
Procurement	25.0	5.3	8.3	10.0	14.3	10.7
Project Implementation & Structures	25.0	31.6	20.8	30.0	42.9	31.3
No of Projects	12	38	24	10	28	112

Source: AECOM

Figure C4 Distribution of Projects interrupted by the DG for Regional Policy by Project Size and Topic



Source: AECOM

C4.7 Conclusions

The number of Interruptions per project averaged 3.4 overall and varied significantly across Member States and JASPERS Office. Polish projects had relatively low levels of interruption with an average of 2.8 topics raised by the DG for Regional Policy. This is in contrast to Hungarian projects where the number of interruptions was substantially higher at 4.4 topics on average. These trends are also reflected in the projects under the remit of the Vienna and Warsaw offices which would have accounted for the majority of Polish and Hungarian projects respectively.

Disparities in the scale of the DG for Regional Policy work is also seen across sectors. The Knowledge Economy has the lowest number of interruption topics with an average of 2.4, compared to Solid Waste which had 4.8 interruption topics on average. It may be noted that Solid Waste had relatively few topics assisted on by JASPERS while the Knowledge Economy sought advice on a substantial number of topics. The average number of topics raised by the DG for Regional Policy increased with project size, but declined over time.

At 56.3 per cent or projects, the Environmental Issues topic was the one raised most frequently by the DG for Regional Policy, followed by Funding and Financing Issues (51.8 per cent), Cost Benefits Analysis (43.8 per cent), and Project Design 41.1 per cent.

The topics that were raised least frequently in Interruption letters were Competition and State Aids (5.4 per cent of projects), Procurement (10.7 per cent) and Demand Analysis and Modelling (17.0 per cent).

Of the four Member States for which conclusions can be drawn, the Czech Republic exhibited more substantial variation in the proportion of projects interrupted. It had a relatively very low proportion interrupted in respect of Project Design (20.1 per cent compared to an average of 41.1. per cent), Risk and Sensitivity Analysis (5 per cent compared to an average of 29.5 per cent), and Procurement (5.0 per cent compared to 10.7 per cent) and a high proportion for Project Cost Estimation (35.0 per cent compared to 17.9 per cent) and Competition and State Aids (20.0 per cent compared to 5.4 per cent). Romania had no projects recorded as interrupted on Demand Analysis and Modelling while Hungary was well above average (26.1 per cent compared to an average of 17.0 per cent). Hungary was well above the average on Cost Benefit Issues (60.9 per cent compared to an average of 43.8 per cent). Environmental Issues was the topic which caused most interruptions overall (56.3 per cent of projects overall). However, Poland had relatively few interruptions on this topic (27.3 per cent of projects).

With regard to sectors, the Knowledge Economy projects generally were subject to fewer interruptions across the full range of topics, reflecting the low level of interruption topics for this sector generally.

With regard to Cost Benefit Analysis, Rail projects had a relatively higher level of interruptions than the average on this topic. Environmental Issue was the topic which formed the basis for more interruptions than any other. Within this context, the proportion of Road projects interrupted was very high. Rail projects were below average on this topic.

The Bucharest Office had a low level of interruptions on Project Concept and Programming, Competition and State Aids, and Procurement, but an above average interruption rate on Funding and Financing Issues and Project Implementation and Structures. The Warsaw Office had particularly low level of interruptions on Project Cost Estimation, Environmental Issues, and Funding and Financing.

There was a marked decline in the proportion of projects interrupted on Environmental Issues between 2006-2009 and 2010-2012. Other topics that declined significantly over the period were Funding and Financing Issues and Project Implementation and Structures. As there was a decline in the average number of topics on which projects were interrupted over the two periods, from 4.1 topics to 3.7, the proportion of projects interrupted on all topics declined with the exception of Competition and State Aids.

Larger projects greater than €150m were more likely than small projects to have been interrupted particularly in relation to Environmental issues, Risk and Sensitivity Analysis, Funding and Financing Issues, and Project Implementation and Structures. Smaller projects less than €150m were more likely to be interrupted than large projects in relation to Project Concept and Programming, Project Design, Demand Analysis and Modelling, Cost Benefit Analysis, and Competition and State Aids.

C5: Comparison of Topics Covered by Jaspers and Topics Revised by the DG for Regional Policy

C5.1 Introduction

Over the period covered by the evaluation, the DG for Regional Policy had made a decision in relation to 208 major projects. Among these 208 projects, JASPERS provided assistance to 168 projects. Of these JASPERS assisted projects, 138 or 82 per cent were subsequently interrupted by the DG for Regional Policy. A similar trend is seen among the 40 major projects which did not receive any JASPERS assistance with approximately 82 per cent of these projects interrupted by the DG for Regional Policy also. Table C15 provides an overview of major projects for which a decision has been made.

Table C15 Overview of Major Projects for which a decision has been made

	JASPERS Assisted	Non JASPERS Assisted	Total
the DG for Regional Policy Interrupted	138* (82.1%)	33 (82.5%)	171 (82.2%)
Not the DG for Regional Policy Interrupted	30 (17.9%)	7 (17.5%)	37 (17.8%)
Total	168 (100%)	40 (100%)	208 (100%)

Source: SFC 2007 Timelines

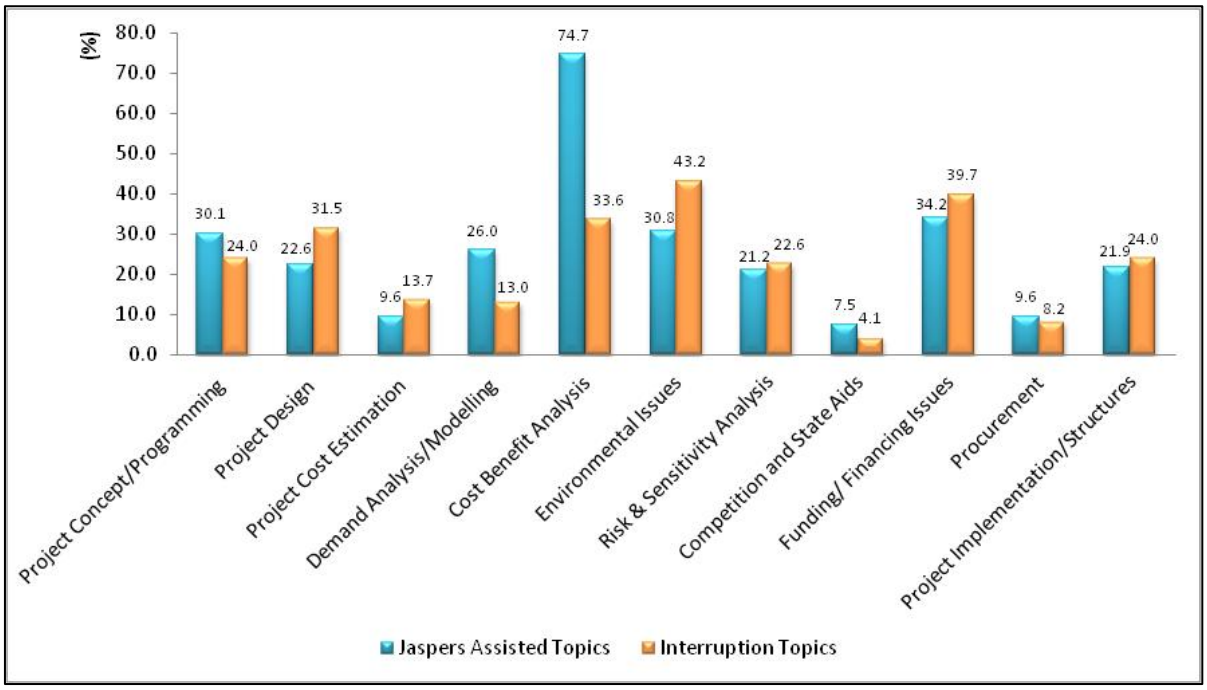
*This refers to 137 projects from timelines which showed an interruption plus one unknown project from timelines but which showed an interruption from SFC database Interruption Letters.

To assess the effectiveness of JASPERS assistance, a comparison of the topics covered by JASPERS and interruption topics subsequently raised by the DG for Regional Policy were analysed. This analysis is based on 146 observations for which comparable data are available. Figure C5. illustrates the proportion of projects which received JASPERS assistance and the proportion of projects that were interrupted by the DG for Regional Policy across the various topics.

As can be seen, a significantly higher proportion of projects received JASPERS assistance in relation to Cost Benefit Analysis (74.7 per cent) than were interrupted on the topic (33.6 per cent). Similar trends are also evident in Demand Analysis and Modelling where approximately 26 per cent of projects availed of JASPERS assistance compared to 13 per cent of projects interrupted on the topic. Project Concept and Programming, Competition and State Aid and Procurement also shows similar trends with smaller proportions of projects interrupted on these topics than received JASPERS assistance.

In contrast, significantly more projects were interrupted on Environmental Issues (43.2 per cent) than received JASPERS assistance on the topic (30.8 per cent). The proportion of projects interrupted by the DG for Regional Policy on Project Design (31.5 per cent) was also substantially higher than the proportions availing of JASPERS assistance (22.6 per cent) on this topic. Similar trends are evident in Funding and Financial Issues, Risk and Sensitivity Analysis and Project Implementation and Structures.

Figure C5 Comparison of the Distribution of JASPERS Assistance and the DG for Regional Policy Interruptions by Topic



Source: AECOM

*n=146

C5.2 JASPERS Success Rate

For each project, the extent of JASPERS' support is defined in the JASPERS' Project Fiche. This sets out the objectives of the JASPERS' input, the scope of the work, its timing, the anticipated outputs and the expertise required to deliver on these outputs. Specific topics may refer to any of the project planning phases or components. For example, there may be a specific request to advise on the development of the cost-benefit analysis or the preparation of procurement documents. As described above, AECOM have identified the topics on which Member States sought JASPERS assistance for each JASPERS-assisted major project. Similarly AECOM has identified and recorded the topics which were raised by the DG for Regional Policy in Interruption Letters for these projects.

Where advice on specific topics is required by a Member State, it is clear that these are topics in the development of the project in question that the Member State would find difficult to address satisfactorily without support from JASPERS. It follows also that if support were not available, then these issues would be more likely to be the subject of interruption letters than other issues that the Member State considers to be more tractable. If Member States are comfortable to deal with these more tractable topics without assistance from JASPERS, it is probable that they will deal with these issues in a satisfactory manner and they will not be subject of an interruption.

If JASPERS' support for a specific topic reduces the probability that this topic will be subject to a subsequent Interruption Letter, this would be a clear indication of JASPERS having a positive impact. This is difficult to gauge in practice, as the probability of interruption without JASPERS' support, for a specific case that has in fact received JASPERS support, cannot be known. However, one measure of success would be to compare the probabilities of interruption for JASPERS' supported and non-supported cases. So, for example, with regard to Funding and Financing issues, JASPERS may be asked to support Member States in relation to some projects, but not with other projects. Where they are not asked to support Member States on this topic, the probability of the topic arising in an interruption later would be relatively low *a priori,* as Member States do not see the topic as presenting difficulties in

these cases. In this context, JASPERS support could be perceived as having an impact, if it reduced the probability of an interruption on this topic to the level pertaining to projects where their support was not sought.

The information compiled by AECOM has allowed it to calculate these probabilities. In particular it is possible to identify the number of projects where Member States sought JASPERs assistance on each of the potential topics. It is then possible to identify how many times this topic recurred in Interruption Letters for these projects. This information is summarised in Table C16 below.

Each line of this Table refers to one of the eleven substantive topics where a Member State could seek JASPERS assistance or which could be the subject of an Interruption Letter from the DG for Regional Policy. The second column of the table records the number of projects where a Member State sought the assistance of JASPERS on the topic in question. The third column of the Table records the number of these projects where the topic in question did not recur in an Interruption Letter from the DG for Regional Policy to the Member State. The fourth column records the result of dividing the figure in column three by the figure in column two to get a "JASPERS success rate", i.e. the probability of JASPERS assistance with a topic leading to that topic not causing concern for the DG for Regional Policy during the consideration of an application.

These success rates are all high. The lowest success rates are those for Project Design and Environmental Issues. In approximately half of the projects where a Member State sought the assistance of JASPERS on these topics during the development of a project, the DG for Regional Policy was concerned about the topics in question when it examined the application for funding and raised the issue in an Interruption Letter. For all other topics the success rate is over 70 per cent. The highest success rate is observed in the area of project cost estimation. In every project where a Member State sought the assistance of JASPERS with this issue, the DG for Regional Policy was not concerned about this issue when it examined the application and it did not arise in Interruption Letters.

Table C16 Distribution of Projects availing of JASPERS Assistance and Not DG for Regional Policy Interrupted by Topic

	No of Projects for which JASPERS Assisted on Topic	No of Projects Free from the DG for Regional Policy Interruption on Topic	JASPERS Success Rate on Topic (%)
Project Concept and Programming	44	34	77.3
Project Design	33	15	45.5
Project Cost Estimation	14	14	100.0
Demand Analysis & Modelling	38	34	89.5
Cost Benefit Analysis	109	76	69.7
Environmental Issues	45	24	53.3
Risk & Sensitivity Analysis	31	26	83.9
Competition and State Aids	11	10	90.9
Funding and Financing Issues	50	28	56.0
Procurement	14	12	85.7
Project Implementation & Structures	32	23	71.9

Source: AECOM

n=146

As discussed above, if JASPERS' help on certain topics, in a project where a Member State has identified that these topics will be difficult, leads to the topic being no more likely to recur in an Interruption Letter than it would be in a project where the Member State did not identify a particular difficulty with the topic, then we have evidence of a positive impact from JASPERS assistance.

The information compiled by AECOM also allows us to calculate these "Member State Success Rates" i.e. the probability that a topic will not be raised in the Interruption Letter in a project where the Member State in question has not identified any difficulty with the topic and has dealt with it without the assistance of JASPERS. These Member State Success Rates are set out in Table C17 below:

Table C17 Proportion of Projects not availing of JASPERS Assistance and Not DG for Regional Policy Interrupted

	No of Projects for which JASPERS did not Assist on Topic	No of these Projects free from the DG for Regional Policy Interruption on Topic	Member State Success Rate on Topic (%)
Project Concept and Programming	102	77	75.5
Project Design	113	85	75.2
Project Cost Estimation	132	112	84.8
Demand Analysis & Modelling	108	93	86.1
Cost Benefit Analysis	37	21	56.8
Environmental Issues	101	59	58.4
Risk & Sensitivity Analysis	115	87	75.7
Competition and State Aids	135	130	96.3
Funding and Financing Issues	96	60	62.5
Procurement	132	122	92.4
Project Implementation & Structures	114	88	77.2

Source: AECOM

n=146

This analysis provides strong evidence of a positive JASPERS impact on the quality of project development, and hence on the ease with which a project application can be reviewed by the DG for Regional Policy.

In the case of five topics (Project Concept and Programming; Project Cost Estimation; Demand Analysis and Modelling; Cost Benefit Analysis and Risk & Sensitivity Analysis) the JASPERS "success rate" is equal to or greater than the Member State "success rate". This means that where a Member State recognises that one of these topics is going to present difficulties in the development of a project, and obtains the assistance of JASPERS, this assistance means that the topic is no more likely to lead to a the DG for Regional Policy interruption than is the case in "normal" cases where a Member State does not see a need to seek the assistance of JASPERS.

In the case of a further five topics (Environmental Issues; Competition and State Aids; Funding and Financing Issues; Procurement and Project Implementation& Structures) the JASPERS "success rate" is not significantly below the Member State "success rate". This means that where a Member State recognises that one of these topics is going to present difficulties in the development of a project, and obtains the assistance of JASPERS, this assistance reduces the risk that the topic will give rise to an Interruption letter from the DG for Regional Policy to a similar level to that obtaining in "normal" cases where a Member State does not see a need to seek the assistance of JASPERS.

Only one topic, Project Design, demonstrates a JASPERS "success rate" significantly lower than the Member State "success rate" (45 per cent as opposed to 75 per cent). JASPERS' relative lack of success in reducing the risk of interruptions from this topic in cases where Member States have recognised difficulties in developing the design of a project may reflect the fact that, in its initial years of operation, JASPERS was often involved in projects at a stage when design work was already largely completed.

A further area of interest in assessing the impact of JASPERS is whether JASPERS identified key issues which required advice. This is particularly difficult to address given that in many cases Member States requested support on specific topics and also due to the fact that in some cases Member States may not have adhered to JASPERS advice. This aspect of JASPERS will be assessed in more detail in Tasks 3 and 4; however Annex C1 provides an overview of the number of projects JASPERS did not provide assistance on a particular topic and the number of these projects which were subsequently interrupted by the DG for Regional Policy. This data allows a crude estimate of a JASPERS miss rate in terms of identifying key issues.

C5.3 Qualitative Review of JASPERS Topics and the DG for Regional Policy Interruptions

The above analysis indicates that where JASPERS provides advice in relation to a particular topic, the probability that this topic will not be subject of an Interruption Letter invariably exceeds 50 per cent, and in some cases much exceeds this level. However, there are a considerable number of instances in which JASPERs provides advice on a topic, but that topic is nevertheless subject of an Interruption. In order to more fully understand what is happening in these circumstances, the Completion Notes and Interruption letters for 20 projects were examined in detail.[1] The 20 projects were chosen from the projects that had the highest number of topics identified in an interruption letter, starting with projects that had the maximum of five interruption topics.

The following facts emerged from this more in-depth appraisal. In general terms, there were very few instances where, although the same topic came up, the interruption query was in respect of an aspect of a topic different to that that addressed by JASPERS: for example, where JASPERS vetted the cost-benefit calculation but did not advise on parameter values and the latter were of concern to the DG for Regional Policy.

The two projects which had interruptions on five topics were projects where JASPERS involvement came at a relatively late stage in the project planning process. In both cases, a final feasibility study for the project was already in place. This obviously limited the extent to which JASPERS could have altered the approach to project planning. For one of these projects, JASPERS was instrumental in having the feasibility study amended through commissioning further work from the external consultant that had drawn it up. However, there is evidence that the extent of the revisions was limited: for example no alternative do-something investment options were explored and this was criticised by the DG for Regional Policy. Given the circumstances and the pressure on the Member State to absorb the funding available to them, a fundamental revision may not have been acceptable to decision-makers in the Member State. There is some evidence also that JASPERS were not fully satisfied with the revamped feasibility study, but that it proceeded to be used as a basis for the application for funding;

There were other instances where JASPERS would have found it difficult to address fully the issues raised by the DG for Regional Policy. Issues relating to Project Concept and Programming and Project Design fall into this category, as these elements of project planning may have been substantially undertaken prior to JASPERS' involvement. With regard to Project Concept and Programming, the DG for Regional Policy was often concerned with how the project fitted into an overall strategy or master plan. In some cases, such a plan may not have been devised, or if it had, may not have been readily acceptable to the DG for Regional Policy. JASPERS' capacity to intervene in these circumstances would have been limited to either advising the Member State to devise such a plan or, where it was in place, to advise on how to better articulate the role of the project within the plan.

In a number of cases, it is clear that while JASPERS had provided advice on a number of topics, this advice was ignored by the Member State. For example, in respect of one project which was subject to interruptions in relation to

[1] It should be borne in mind that this analysis is limited by what was recorded in both the Completion Notes and Interruption Letters. In some instances at least, the full flavour of what occurred may not be discernible.

three topics, JASPERS were concerned that the project concept had not been adequately developed, the cost-benefit analysis did not meet the required standard, and that the financial appraisal was not detailed enough. JASPERS noted in its Completion Note that the Member State did not address these concerns.

Despite these mitigating circumstances, in just over half of the projects studied, it is apparent that there was a conflict between the JASPERS advice and the view of the DG for Regional Policy. This arose in a number of circumstances:

- JASPERS were asked to vet the feasibility study and or the project application and the DG for Regional Policy identified an issue that was not explicitly considered by JASPERS;
- JASPERS explicitly advised on an issue, but the DG for Regional Policy subsequently took a different view of the issue from a technical viewpoint;
- JASPERS identified an issue, but considered that it was not of sufficient importance to render the project application invalid.

The Box below presents details of a project which exhibits some of these elements.

Box C.1 Wastewater Collection and Treatment Project for the Tapio Region of Hungary

Wastewater Collection and Treatment Project for the Tapio Region of Hungary

Project

The project comprised the provision of sewage disposal in the Tapio Region of Hungary. It covers 5 agglomerations that have a total population of 79,935 inhabitants. Prior to the project implementation, sewage services are only provided in the two main cities where only 60% and 11% of the population are connected to the existing network

Under the proposed project, that had a total cost (excluding VAT) of € 106 million, some 79,004 inhabitants were to be connected to the sewer network. The main infrastructure to be provided comprised:

- 699 km of sewer network together with 81 km of regional (connecting) pipelines;
- 4 new wastewater treatment plants and extension of the existing treatment plant that served Nagykata; and
- A centralised composting plant to be located in Nagykata;

Role of JASPERS

When JASPERS started work in mid 2007, a draft feasibility report had already been prepared. JASPERS reviewed this and other material which went through several revisions before an application form was drafted. JASPERS reviewed draft application form, which was amended before being submitted in April 2010.

Interruption Topics

DG for Regional Policy raised issues in relation to Project Design, Cost Benefit Analysis, Environment Issues, and Project Implementation and Structures

the DG for Regional Policy raised a number of questions on the design of the project including

- The use of several monitoring and control centres rather than a single, central monitoring and control centre
- The size of vehicles used to collect sludge from individual septic tanks
- The definition of the area to be covered by the system

The Completion Note records detailed interaction with the Hungarian authorities on the design and scope of the project, so it appears that JASPERS and the DG for Regional Policy differed on the appropriate design of this project, or the level of justification needed for the design chosen.

The Completion Note records advice from JASPERS to the Member State on the preparation of the cost benefit analysis. The first interruption letter asked the Member State to provide a copy of the cost benefit analysis. No further interruptions arose with respect to the cost benefit analysis. This indicates that the MS completed the cost benefit analysis to the standard required by the DG for Regional Policy with the assistance of JASPERS.

The DG for Regional Policy raised a number of specific environmental issues in its interruption letters. For example it was concerned that certain mitigation measures mentioned in the EIA reports had not been taken and asked to see copies of EIA screening reports. JASPERS was also concerned with the coverage of environmental issues when it reviewed the studies carried out for this project. In the completion note it states that Hungary had not been able to address its concerns, inter alia Hungary had not been able to produce documentation of EIA screening processes. This seems to be an instance of JASPERS raising a topic, a Member State being unable or unwilling to address the topic and it recurring when the project was examined by the DG for Regional Policy.

Project Implementation and Structures: the DG for Regional Policy was concerned that the entity established to own and operate this waste water system was not guaranteed to continue in existence with the mandate to maintain the whole system for the full appraisal period. From the Completion Note, it is apparent that JASPERS had done a lot of work with the Member State explaining the need for an entity to own and run the system on behalf of the numerous local authorities in question, and had a large input into the design of the implementation structures eventually proposed.

This is a case where JASPERS identified a substantial issue, and helped the Member State to address it almost completely with one small gap in either the system (or the way it was explained in the application form) which was picked up by the DG for Regional Policy. This represents significant assistance from JASPERS complemented by a “Quality Control” role from the DG for Regional Policy.

Overview

JASPERS was involved over a long period of time and had the opportunity to significantly influence the development of this project. However there were three instances where JASPERS provided input on a topic only for it to recur in the DG for Regional Policy interruption letters. In one case the DG for Regional Policy was not satisfied with the way project design was presented, despite extensive input from JASPERS, which indicates a difference in standards applied by the DG for Regional Policy and JASPERS. In the case of environmental concerns, JASPERS raised concerns which the Member State did not address and, unsurprisingly the topic recurred in the DG for Regional Policy interruption letters. The third apparent overlap merely represents a DG for Regional Policy review “tidying up” a minor element of a major topic where JASPERS had a substantial positive input.

In fact, there was only one topic, design, where the DG for Regional Policy raised a substantial interruption despite JASPERS being apparently satisfied after supporting the Member State in relation to this issue.

On examination, this project with a large number of apparent overlaps between JASPERS topics and the DG for Regional Policy topics indicates a significant positive impact by JASPERS.

There are a considerable number of instances in which JASPERs provides advice on a topic, but that topic is nevertheless subject of an Interruption. Examination of 20 projects that fell into this category revealed that there are a number of reasons why this had occurred, including failure of the Member State to heed JASPERS’ advice. However, in more than half the cases reviewed, it is apparent that there was a conflict between the JASPERS advice and the views of the DG for Regional Policy. There is no clear trend as to whether this conflict persisted over time; however more details analysis of these issues will be carried out in Tasks 3 and 4.

Section D: Conclusions

Section D: Conclusions

D1: Timeline Analysis

A key objective of the evaluation of JASPERS is to establish the impact of JASPERS on the Timelines for the preparation and submission of major projects to the DG for Regional Policy for funding approval.

D1.1 DG for Regional Policy Decision Duration for Major Projects

The DG for Regional Policy Decision durations relate to the time between the submission of a major project application to the DG for Regional Policy and the DG for Regional Policy funding Decision. An analysis of the DG for Regional Policy Decision durations for major JASPERS-assisted projects revealed an average the DG for Regional Policy Decision duration of 272 days. The equivalent duration for non-JASPERS-assisted projects was found to be 386 days. The availability of JASPERS assistance appears to have reduced the DG for Regional Policy Decision duration, on average, by 114 days.

An analysis of the DG for Regional Policy Decision durations by project size revealed shorter average Decision durations for JASPERS-assisted projects relative to the non-assisted projects, across the different size categories. Projects with costs totalling less than €100m experienced average Decision duration of 251 days; the equivalent duration for non-assisted projects was 398 days. In the case of projects with costs of between €100m and €200m, the Decision durations for JASPERS-assisted project were also shorter, although the difference was negligible at 5 days. For projects with costs in excess of €200m, the average Decision durations for JASPERS-assisted projects, at 336 days, was significantly shorter than for non-assisted counterparts (681 days).

A similar analysis of the DG for Regional Policy Decision durations for both JASPERS-assisted and non-JASPERS-assisted projects by sector showed that across all sectors, for which there was comparison data (namely ‘Roads’; Water and Wastewater’; ‘Railways’; ‘Urban Transport’; and ‘Knowledge Economy’), the average Decision durations for JASPERS-assisted projects were shorter than for non-assisted projects. The largest variation between Decision durations was witnessed in the ‘Urban Transport’ sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 231 days. The shortest variation was experienced in the ‘Water and Wastewater’ sector, where the Decision duration for non-assisted projects exceeded that of assisted projects by 25 days.

There were five Member States which submitted both JASPERS-assisted and non-JASPERS-assisted projects to the DG for Regional Policy for funding approval, namely Romania, Poland, Czech Republic, Estonia and Slovenia. Across the five Member States, the average DG for Regional Policy Decision durations were shorter for JASPERS-assisted projects in Poland, the Czech Republic and Slovenia. In both Romania and Estonia the DG for Regional Policy Decision durations were actually shorter for projects that were not in receipt of JASPERS assistance. In the case of Romania, the non-JASPERS-assisted projects belonged to the ‘Solid Waste’ (2 projects) and ‘Water and Wastewater’ (7 projects) sectors. In Estonia the non-JASPERS-assisted projects belonged to the ‘Solid Waste’ (1 project); ‘Water and Wastewater’ (2 projects); and ‘Railways’ (1 project) sectors. In the case of both Romania and Estonia, the number of non-assisted projects was very small. Average Timeline durations based on small numbers of projects may not reflect the reality of the underlying Timeline durations.

The finding that the DG for Regional Policy durations were shorter for JASPERS assisted projects than for non-JASPERS assisted projects held true across the range of project sizes, sectors and Member States. Multivariate regression analysis was conducted to ensure a like for like comparison, and this confirmed that JASPERS assistance reduced the DG for Regional Policy Decision durations. This analysis indicated that the average effect of JASPERS assistance, controlling for all other variables affecting the DG for Regional Policy Decision duration, was a reduction of 86 days.

D1.2 JASPERS Duration for Major Projects

The JASPERS duration relates to the time between the start of JASPERS assistance and the completion of JASPERS assistance for a project/assignment. Across the three types of JASPERS assignment, namely, major, non-major and horizontal assignments, the average JASPERS durations were 489 days; 594 days; and 388 days respectively. Non-major projects thus experienced longer average JASPERS durations compared to major projects.

Half of all major JASPERS-assisted projects were located in either Romania or Poland. JASPERS durations in Romania exceeded the average by 118 days; by contrast JASPERS durations in Poland, at 476 days, were close to the average. Larger major projects (with project costs in excess of €150m) experienced longer than average JASPERS durations. Across the sectors in which there were significant numbers of projects (in excess of ten), the 'Urban Transport' sector experienced the longest JASPERS durations, 99 days above the average. The shortest durations were experienced in the 'Water and Wastewater' sector, where average JASPERS durations were 47 days below the average.

Almost all major JASPERS-assisted projects were supported through the Bucharest, Vienna, and Warsaw JASPERS offices, each accounting for 38, 35 and 26 per cent of projects respectively. The Bucharest office experienced the longest JASPERS durations, which were 111 days above the average. In both the Warsaw and Vienna offices the JASPERS durations were below average. As well as experiencing the longest JASPERS durations, the Bucharest office experienced the shortest the DG for Regional Policy Decision durations (94 days below the average). The Warsaw and Vienna offices both experienced above average the DG for Regional Policy Decision durations.

D1.3 JASPERS Duration for non-Major Projects

Trends in the average JASPERS durations for non-major JASPERS-assisted projects were similar in many respects to those of their major JASPERS-assisted project counterparts. Half of all non-major JASPERS-assisted projects were also located in either Romania or Poland. JASPERS durations for Romanian non-major projects were above average, by 333 days. In Poland, the average JASPERS duration for non-major projects was 542 days, 52 days below the average. The Bucharest JASPERS office (which supported 40 per cent of non-major projects for which duration data was available) experienced the longest JASPERS durations, 149 days above average. The Vienna JASPERS office which supported one-quarter of all non-major projects for which duration data was available, experienced JASPERS durations 231 days below the average. 'Railway' projects experienced the longest non-major JASPERS durations, 625 days above the average.

D1.4 JASPERS Duration for Horizontal Projects

Romania and Poland accounted for 55 per cent of all JASPERS horizontal assignments. In both Member States however, the average JASPERS durations were below average. The 'Energy', 'Solid Waste' and Water and Wastewater' sectors each had in excess of ten horizontal assignments. All three of these sectors experienced below average JASPERS durations. The two JASPERS offices that together supported 80 per cent of all JASPERS horizontal assignments (namely Bucharest and Warsaw) each experienced below average JASPERS durations.

D2: Links Between JASPERS Advice and the DG for Regional Policy Project Assessment

D2.1 Scale and Scope of JASPERS Assistance

The scale of JASPERS support to projects was extensive. Overall, the average number of topics per project was 4.8, while the average number of meetings/visits was 5.3. The Czech Republic was notable for availing of relatively lower levels of JASPERS assistance, with an average of 2.9 topics per project and 2.7 meetings/site visits per project.

There is a disparity in the scale of JASPERS support required by different sectors. Solid Waste projects had relatively few topics assisted on by JASPERS, averaging 3.4 compared to the Knowledge Economy or Road sectors both of which sought advice on an average of 5.4 topics. The Knowledge Economy also appears to have required a

greater level of JASPERS assistance in terms of the number of meetings attended by JASPERS, which averaged 8.1.

Over time it appears that there has been little change in the scale of JASPERS effort, however it is evident that larger projects require assistance in relation to a higher number of topics and the number of meetings attended by JASPERS is larger.

With regard to the scope of JASPERS Supports, Cost Benefit Analysis was the topic on which JASPERS support was most frequently sought occurring in 74.4 per cent of all projects. This was followed by Funding and Financing Issues at 35.1 per cent of projects, Project Concept and Programming at 30.4 per cent, and Environmental Issues at 29.2 per cent.

The topics for which JASPERS Support was least required were Competition and State Aids at 8.3 per cent of projects, Project Cost Estimation at 9.5 per cent and Procurement at 10.1 per cent.

The Czech Republic required support for a low proportion of projects across all topics. With regard to the topics on which support was most frequently sought, advice on Cost Benefit Analysis was sought by Romania in respect of 92.6 per cent of all that Member State's projects. Poland availed of JASPERS support on Funding and Financing issues for 65.6 per cent of their projects. Hungary and Poland were above average in their use of support on Environmental Issues.

With regard to sectors, the Knowledge Economy had high levels of support in relation to Project Concept and Programming (57.1 per cent) and Competition and State Aids (also 57.1 per cent).. Roads had high levels of support generally, but particularly in relation to Cost Benefit Analysis (85.3 per cent of projects), Environmental issues (61.8 per cent) and Demand Analysis and Modelling (50.0 per cent). Rail was an intensive user of support for Cost Benefit Analysis (66.7 per cent of projects), Environmental Issues (42.9 per cent) and Project Concept and Programming (42.9 per cent). Solid Waste projects were also intensive users of advice on Cost Benefit Analysis. The Water and Wastewater sector was a generally high user of advice, but particularly on Cost Benefit (87.9 per cent) and Funding and Financing Issues (39.7 per cent).

As might be expected, all of the JASPERS offices provided a high level of advice on Cost Benefit Issues. The Bucharest office was particularly involved in providing advice on Project Implementation and Structures (39.7 per cent of projects) and Funding and Financing Issues (38.1 per cent of projects). For the Vienna office, the major advisory topics were Environmental Issues (28.8 per cent of projects) and Project Concept and Programming (27.1 per cent). With regard to the Warsaw office, the major involvement was with Funding and Financing Issues (35.1 per cent) and Project Concept and Programming (30.4 per cent).

There was a tendency for the relative support on some topics to decline over time. Distinguishing between the DG for Regional Policy Decision periods 2006-2009 and 2010-2012, the latter period saw a decline in support relating to Project Design, Cost Benefit Analysis, Funding and Financing Issues, Procurement and Project Implementation and Structures Issues. In contrast, there was an increase in support in relation to Project Concept and Programming, Demand Analysis and Modelling, Risk and Sensitivity Analysis, and Competition and State Aids.

Larger projects of greater than €150m tended to have greater need for support across a range of topics than smaller projects.

D2.2 Analysis of the DG for Regional Policy Interruptions

The number of Interruptions per project averaged 3.4 overall and varied significantly across Member States and JASPERS Office. Polish projects had relatively low levels of interruption with an average of 2.8 topics raised by the DG for Regional Policy. This is in contrast to Hungarian projects where the number of interruptions was substantially higher at 4.4 topics on average. These trends are also reflected in the projects under the remit of the Vienna and Warsaw offices which would have accounted for the majority of Polish and Hungarian projects respectively.

Disparities in the scale of the DG for Regional Policy work is also seen across sectors. The Knowledge Economy has the lowest number of interruption topics with an average of 2.4, compared to Solid Waste which had 4.8 interruption topics on average. It may be noted that Solid Waste had relatively few topics assisted on by JASPERS

while the Knowledge Economy sought advice on a substantial number of topics. The average number of topics raised by the DG for Regional Policy increased with project size, but declined over time.

At 56.3 per cent or projects, Environmental Issues was the topic raised most frequently by the DG for Regional Policy, followed by Funding and Financing Issues (51.8 per cent), Cost Benefit Analysis (43.8 per cent), and Project Design 41.1 per cent.

The topics that were raised least frequently in Interruption letters were Competition and State Aids (5.4 per cent of projects), Procurement (10.7 per cent) and Demand Analysis and Modelling (17.0 per cent).

Of the four Member States for which conclusions can be drawn, the Czech Republic exhibited more substantial variation in the proportion of projects interrupted. It had a relatively very low proportion interrupted in respect of Project Design (20.1 per cent versus an average of 41.1. per cent), Risk and Sensitivity Analysis (5 per cent versus an average of 29.5 per cent), and Procurement (5.0 per cent versus 10.7 per cent) and a high proportion for Project Cost Estimation (35.0 per cent versus 17.9 per cent) and Competition and State Aids (20.0 per cent versus 5.4 per cent). Romania had no projects recorded as interrupted on Demand Analysis and Modelling while Hungary was well above average (26.1 per cent versus an average of 17.0 per cent). Hungary was well above the average on Cost Benefit Issues (60.9 per cent versus an average of 43.8 per cent). Environmental Issues was the topic which caused most interruptions overall (56.3 per cent of projects oveall). However, Poland had relatively few interruptions on this topic (27.3 per cent of projects).

With regard to sectors, the Knowledge Economy projects generally were subject to fewer interruptions across the full range of topics, reflecting the low level of interruption topics for this sector generally. With regard to Cost Benefit Analysis, Rail projects had a relatively higher level of interruptions than the average on this topic (58.8 per cent of projects versus 43.8 per cent of projects on average). Environmental Issues was the topic which formed the basis for more interruptions than any other (56.3 per cent). Within this context, the proportion of Road projects interrupted was very high (80.8 per cent). Rail projects were below average on this topic (29.4 per cent).

The Bucharest Office had a low level of interruptions on Project Concept and Programming (20.8 per cent compared to 31.3 per cent) and Competition and State Aids (no interruptions versus an average of 5.4 per cent of projects) and Procurement (no interruptions versus an average of 10.7 per cent), but an above average on Funding and Financing Issues (62.5 per cent versus 51.8 per cent) and Project Implementation and Structures (66.7 per cent versus 31.3 per cent). The Warsaw Office had particularly low level of interruptions on Project Cost Estimation (9.7 per cent versus 17.9 per cent), Environmental Issues (32.3 per cent versus 56.3 per cent), and Funding and Financing (41.9 per cent versus 51.8 per cent).

There was a marked decline in the proportion of projects interrupted on Environmental Issues between 2006-2009 and 2010-2012 (from 73.0 per cent to 48.0 per cent). Other topics that declined significantly over the period were Funding and Financing Issues (from 59.5 per cent to 48.0 per cent) and Project Implementation and Structures (from 40.5 per cent to 26.7 per cent). As there was a decline in the average number of topics on which projects were interrupted over the two periods, from 4.1 topics to 3.7, the proportion of projects interrupted on all topics declined with the exception of Competition and State Aids.

Larger projects greater than €150m were more likely than small projects to have been interrupted particularly in relation to Environmental Issues (63.2 per cent of projects versus 52.7 per cent), Risk and Sensitivity Analysis (34.2 per cent versus 27.0 per cent), Funding and Financing Issues (57.9 per cent versus 48.6 per cent), and Project Implementation and Structures (39.5 per cent versus 27.0 per cent). Smaller projects less than €150m were more likely to have availed of support than large projects in relation to Project Concept and Programming (33.8 per cent versus 26.3 per cent), Project Design (41.9 per cent versus 39.5 per cent), Demand Analysis and Modelling (17.6 per cent versus 15.8 per cent), Cost Benefit Analysis (47.3 per cent versus 36.8 per cent), and Competition and State Aids (6.8 per cent versus 2.6 per cent).

D2.3 Comparison of Topics Covered by JASPERS and Topics Revised by the DG for Regional Policy

The topics covered by JASPERS and topics subsequently raised by the DG for Regional Policy were analysed. A significantly higher proportion of projects received JASPERS assistance in relation to Cost Benefit Analysis (74.7 per cent) than were interrupted on the topic (33.6 per cent). Similar trends are also evident in Demand Analysis and Modelling where approximately 26 per cent of projects availed of JASPERS assistance compared to 13 per cent of projects interrupted on the topic. Project Concept and Programming, Competition and State Aid and Procurement also shows similar trends with smaller proportions of projects interrupted on these bases than received JASPERS assistance.

In contrast, significantly more projects were interrupted on Environmental Issues (43.2 per cent) than received JASPERS assistance on the topic (30.8 per cent). The proportion of projects interrupted by the DG for Regional Policy on Project Design (31.5 per cent) was also substantially higher than the proportions availing of JASPERS assistance (22.6 per cent) on this topic. Similar trends are evident in Funding and Financial Issues, Risk and Sensitivity Analysis and Project Implementation and Structures.

There are a considerable number of instances in which JASPERS provides advice on a topic, but that topic is nevertheless subject of an Interruption. Examination of 20 projects that fell into this category revealed that there are a number of reasons why this had occurred, including failure of the Member State to heed JASPERS' advice. However, in more than half the cases reviewed, it is apparent that there was a conflict between the JASPERS advice and the views of the DG for Regional Policy.

The information gathered on each project was used to analyse the effect that JASPERS assistance on a particular aspect of project development had on the probability of that aspect of a project giving rise to an Interruption Letter from the DG for Regional Policy. For each topic a "JASPERS success rate" was calculated. This was the proportion of projects where JASPERS gave assistance on a topic, where that topic was not subsequently the subject of an Interruption Letter from the DG for Regional Policy. For comparison purposes a "Member State success rate" for each topic was also calculated. This was the proportion of projects where Member States dealt with the topics without JASPERS assistance, where the project was examined by the DG for Regional Policy without an interruption on the topic in question.

For all topics, except Project Design, the JASPERS success rate was comparable to, or even better than, the Member State success rate. As JASPERS assistance will only be sought where a Member State identifies potential difficulties with an aspect of a project, this is significant evidence of a positive impact from JASPERS assistance in the development of a project. JASPERS assistance with a difficult topic leads to that topic being no more likely to lead to a DG for Regional Policy interruption than would be the case in a project where the topic did not appear difficult to a Member State. JASPERS' relative lack of impact in the area of Project Design may reflect that fact that during the valuation period JASPERS was often involved in projects at a stage when design work was already largely completed.

D3: Next Steps

The next steps in the delivery of this study are as follows:

Consultation with JASPERS Officials

Consultations with JASPERS officials commenced on 21st of May 2012. To date a round table consultation has been carried out with the Head of the Operations Management Division of JASPERS and the heads of the Roads; Water & Wastewater and Knowledge Economy and Energy Divisions of JASPERS. Further consultations are planned for JASPERS personnel in the Vienna, Bucharest and Warsaw offices. These consultations are due to take place in June and July.

Consultations with the DG for Regional Policy Officials

Consultations with the DG for Regional Policy officials commenced on 21st of May 2012. To date consultations have taken place with desk officers responsible for Romania, Slovenia, Latvia, Estonia, Bulgaria, Poland and the

Czech Republic. Additional consultations are envisages over the June and July period. These will cover the desk officers responsible for Lithuania, Hungary and Slovakia.

Case Study Interviews

Case Studiy interviews are scheduled in Poland and Romania during the first week in June. Meetings to discuss the remaining case studies are scheduled for the Czech Republic (18th June) and Slovenia (12th June).

Feedback interviews with Member States

Feedback will be obtained from Poland, Romania, the Czech Republic and Slovenia in conjunction with the case study interviews. Additional feedback interviews have been organised in June with Latvia, Estonia, Bulgaria and Slovakia. Dates have not yet been fixed for meeting with Lithuania and Hungary.

Workshops being planned

Workshops are planned for late July, when the consultation process is complete. Four workshops are foreseen:

- **Workshop 1**: This workshop will be held in Warsaw and include involvement of Poland, Lithuania and Latvia;
- **Workshop 2:** A workshop in Budapest will involve representatives from Hungary and Slovenia;
- **Workshop 3**: A workshop with representatives from the Czech Republic and Slovakia will be held in Prague; and
- **Workshop 4**: The final workshop will be arranged to combine representatives from Romania and Bulgaria and will be held in Bucharest.

DG Environment Meeting

DG Regional Policy is to organize a meeting with a representative of EG Environment, to discuss their standards for examination of funding applications

Annexes

Annex B1

Table 1: Data Fields in the JASPERS Database

Field	Options (where relevant)
JASPERS Reference Number	
Title	
Sector	Air, maritime and public transport; Roads; Water and wastewater; Knowledge economy, energy and waste; Multi-sector
Subsector	There are 19 subsectors used in the database
Country	Bulgaria; Cyprus; Czech Republic; Estonia; Hungary; Latvia; Lithuania; Malta; Poland; Slovakia; Slovenia; Multi
Status	All Completed
Application Status	Not Applicable; Concept Stage; Pre Feasibility; Completed; Feasibility Ongoing; Feasibility Completed; Application Approved at National Level; Application Submitted to EC; Application Approved by EC; Project Implementation Completed
Project Type	Small; Major; Horizontal
Completion date	
Submission date	
Approval date	
Elapsed days with interruption	
Elapsed days without interruption	
Estimated Total Cost	
Community Amount	
Evolution	All “Completion Note Validated”
Office	Luxembourg; Warsaw; Vienna; Bucharest
Target Fund	ERDF; Cohesion Fund
Operational Program	
European Commission Reference*	
Project Promoter	
Programming Period	All “2007-2013”
National Approval Date	

Source: JASPERS

Capabilities on project:
Economics

Table 2: Data Fields in the DG REGIO Database

Field	Options (where relevant)
JASPERS Reference Number	
Title	
Sector	Air, maritime and public transport; Roads; Water and wastewater; Knowledge economy, energy and waste; Multi-sector
Subsector	There are 19 subsectors used in the database
Country	Bulgaria; Cyprus; Czech Republic; Estonia; Hungary; Latvia; Lithuania; Malta; Poland; Slovakia; Slovenia; Multi
Status	All Completed
Application Status	Not Applicable; Concept Stage; Pre Feasibility; Completed; Feasibility Ongoing; Feasibility Completed; Application Approved at National Level; Application Submitted to EC; Application Approved by EC; Project Implementation Completed
Project Type	Small; Major; Horizontal
Completion date	
Submission date	
Approval date	
Elapsed days with interruption	
Elapsed days without interruption	
Estimated Total Cost	
Community Amount	
Evolution	All “Completion Note Validated”
Office	Luxembourg; Warsaw; Vienna; Bucharest
Target Fund	ERDF; Cohesion Fund
Operational Program	
European Commission Reference*	
Project Promoter	
Programming Period	All “2007-2013”
National Approval Date	

Source: DG REGIO

Annex B2: Additional JASPERS Documentation

- **JASPERS Action Plan**

  A JASPERS Action Plan is prepared annually by the Managing Authority in the Member State availing of JASPERS assistance. The Action Plan is finalised following discussions between the Member State and the four partners in JASPERS. The Plan sets out:

  - A summary of the Member State's objectives in terms of JASPERS assistance;
  - A listing of the sectors and subsectors where JASPERS assistance will be sought;
  - A summary of the current status of JASPERS activities during the previous year in the Member State; and
  - A listing of the key projects and horizontal activities for which the Member State requires JASPERS support for the forthcoming year.

- **JASPERS Project Fiche**

  A Project Fiche is prepared by JASPERS at the commencement of JASPERS involvement with a major project, non-major project and horizontal assignment. The Fiche is a small document that sets out summary details of the project, including:

  - A project description and its associated objectives;
  - The degree of preparation of the project at the time JASPERS was consulted;
  - The tasks JASPERS will carry out; and,
  - The timing of the JASPERS work.

- **JASPERS Completion Note**

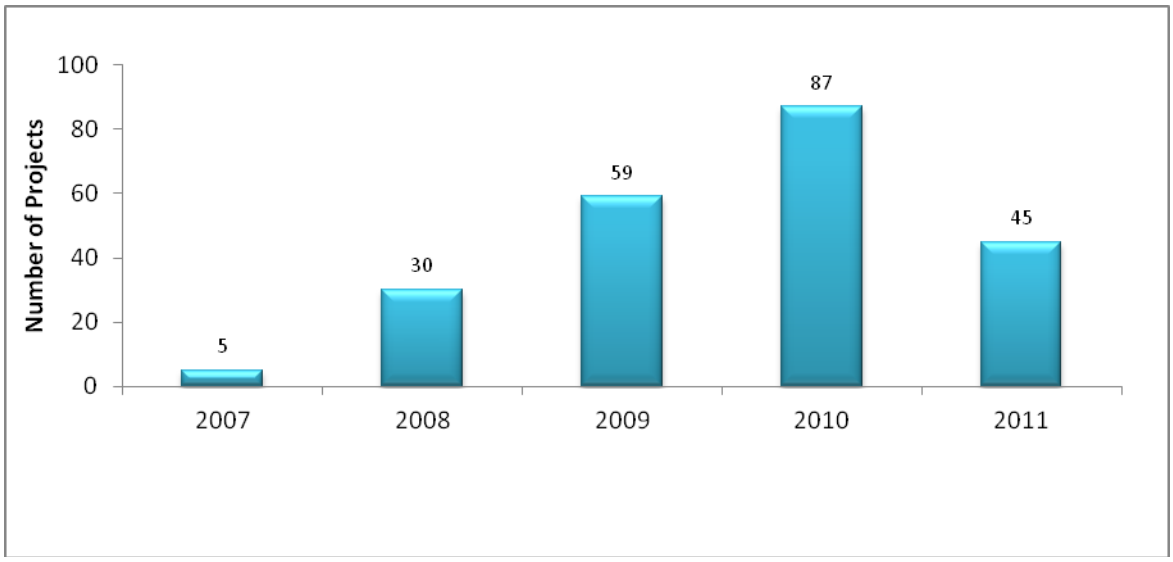
  A Completion Note is prepared by JASPERS when JASPERS involvement with a project is complete. The Completion Note is significantly more detailed than the Project Fiche. Since 2009 have been provided to DG REGIO when an application for funding is made.

  Completion Notes broadly follow the same format containing project related information, including:

  - A project description and its associated objectives;
  - Details of JASPERS input to the project, including a list of JASPERS activity areas;
  - The schedule of key JASPERS activities, including dates (in some cases approximate) of when JASPERS involvement with the project commenced;
  - Key issues that arose over the course of JASPERS involvement with the project;
  - Sensitivity and risk analysis completed; and
  - Any recommendations JASPERS have made in relation to the project at the time they have completed their work in relation to the project.

Annex B3: Profile of Major Projects in Receipt of JASPERS Assistance

Figure 1: Number of Major JASPERS-Assisted Projects by DG REGIO Application Year



Year of Application to DG REGIO	No Projects	% Projects
2007	5	2.2
2008	30	13.0
2009	59	25.5
2010	87	37.7
2011 (part of)	45	19.5
Not applicable	5	2.2
Total	231	100.0

Figure 2: Number of JASPERS-Assisted Major Projects by Sector and by Project Size

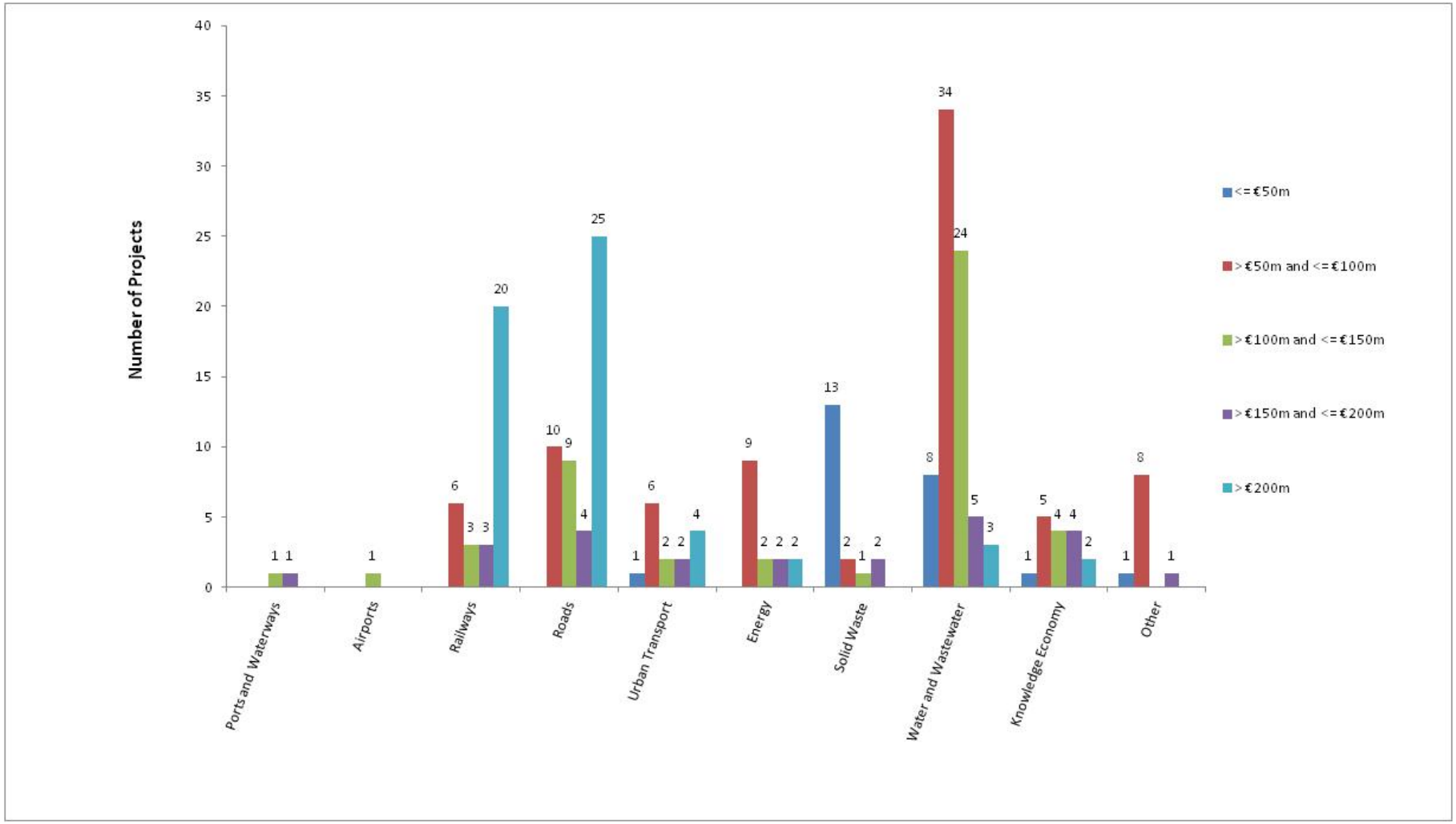


Figure 3: Number of JASPERS-Assisted Major Projects by JASPERS Start Date and by Project Size

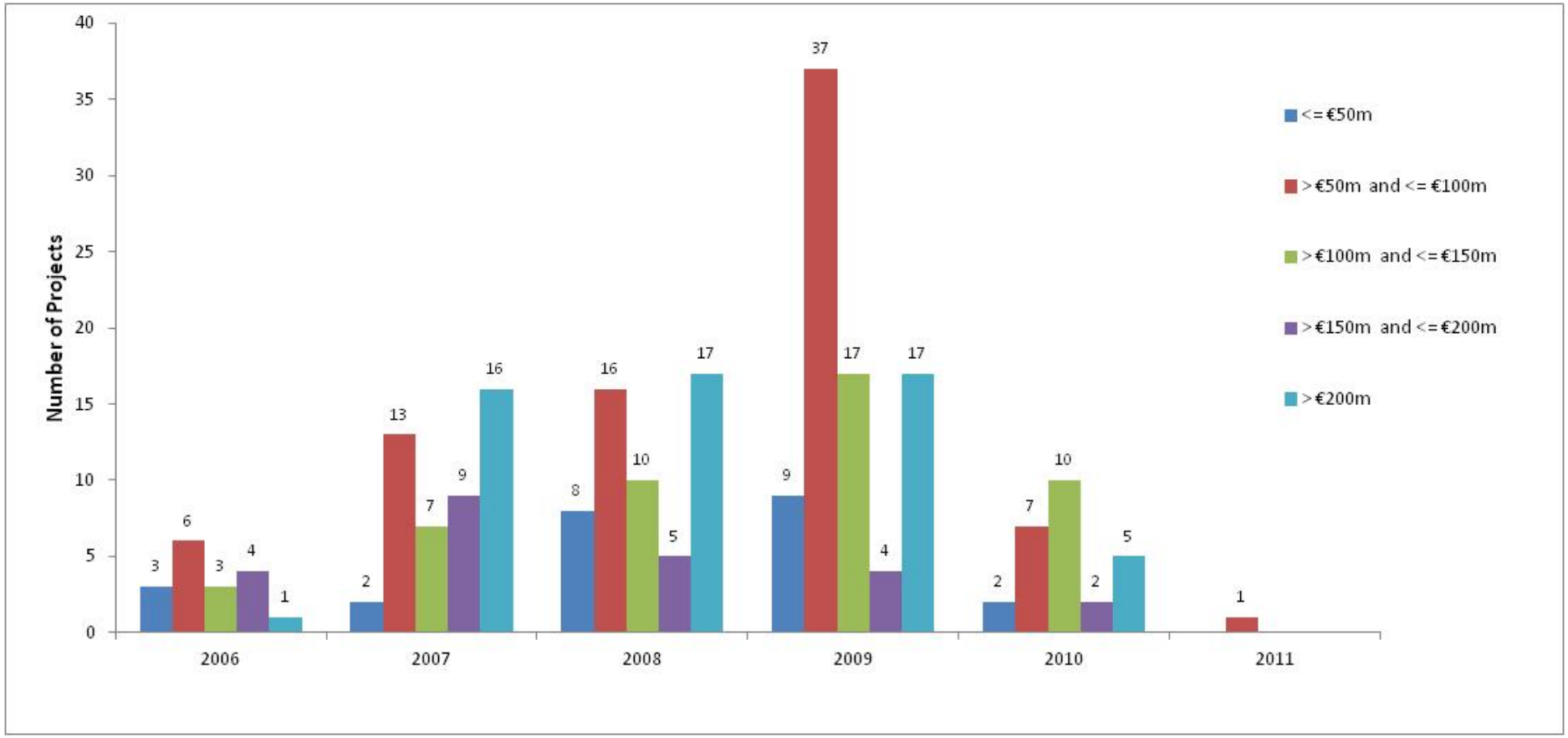
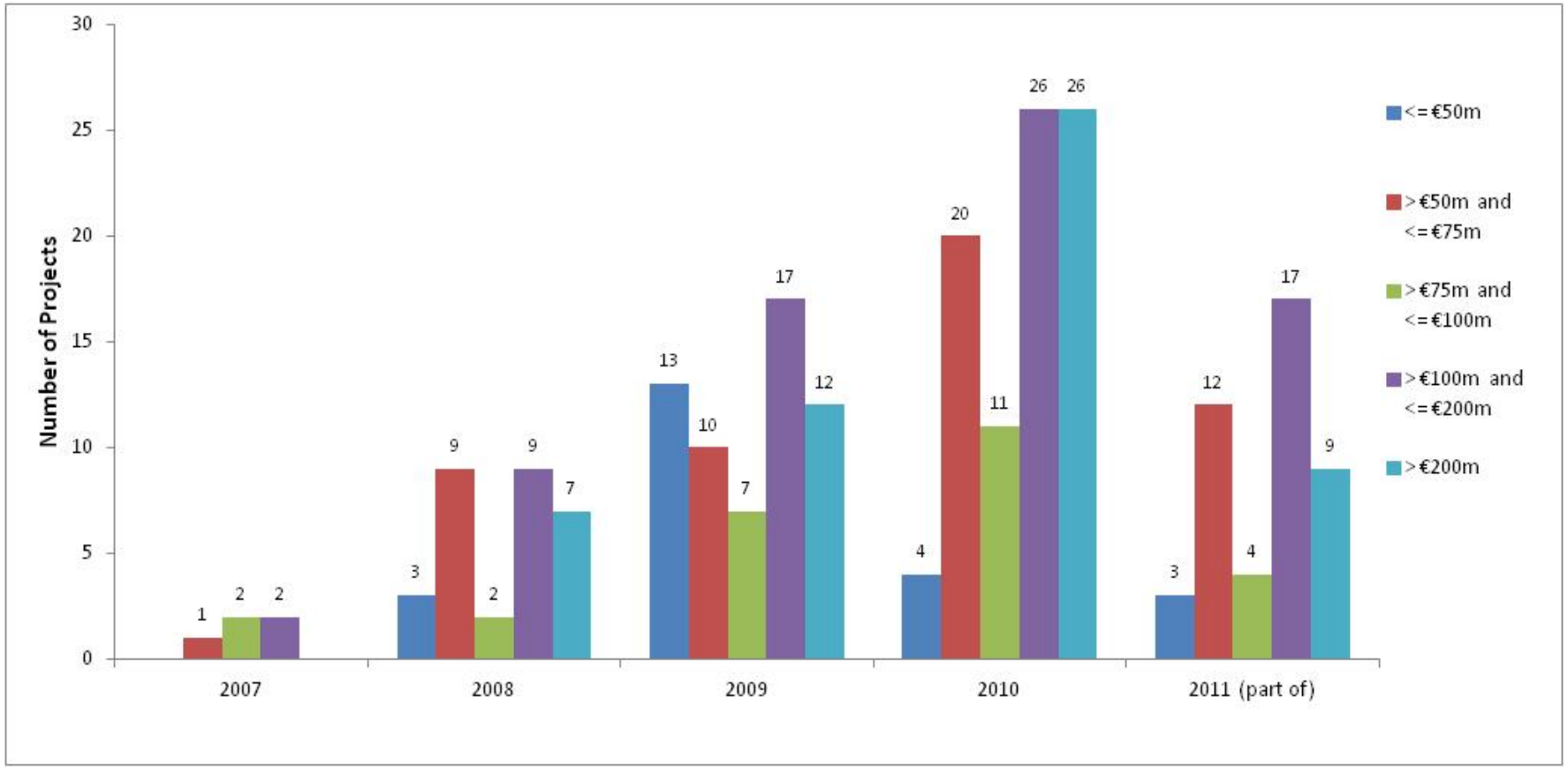


Figure 4: Number of JASPERS-Assisted Major Projects by Year Submitted to DG REGIO for Approval and by Project Size



Capabilities on project:
Economics

Annex B4: Profile of Major Projects Not in Receipt of JASPERS Assistance

Figure 1: Number of non-JASPERS-assisted Major Projects by Project Size and Sector

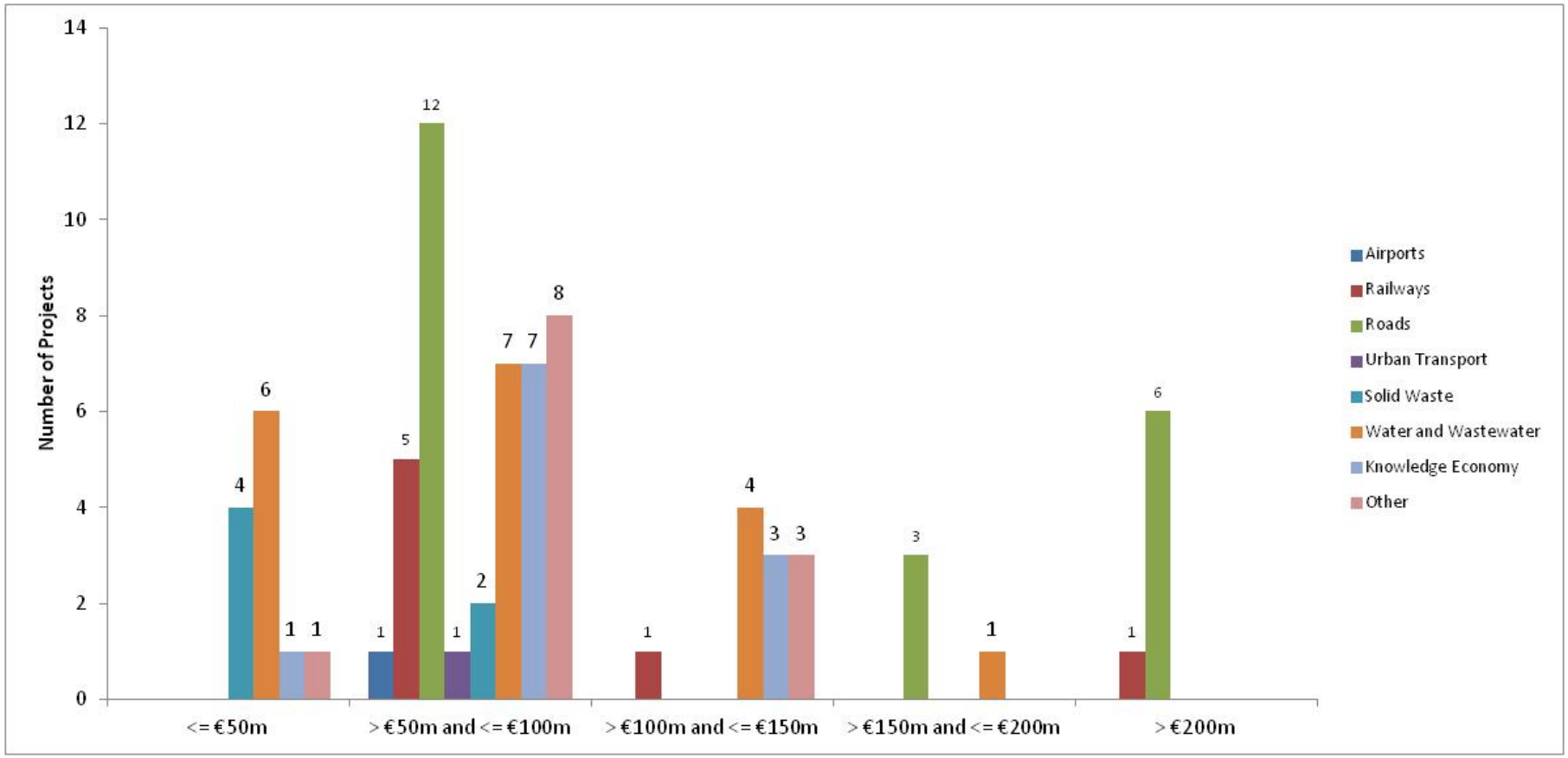
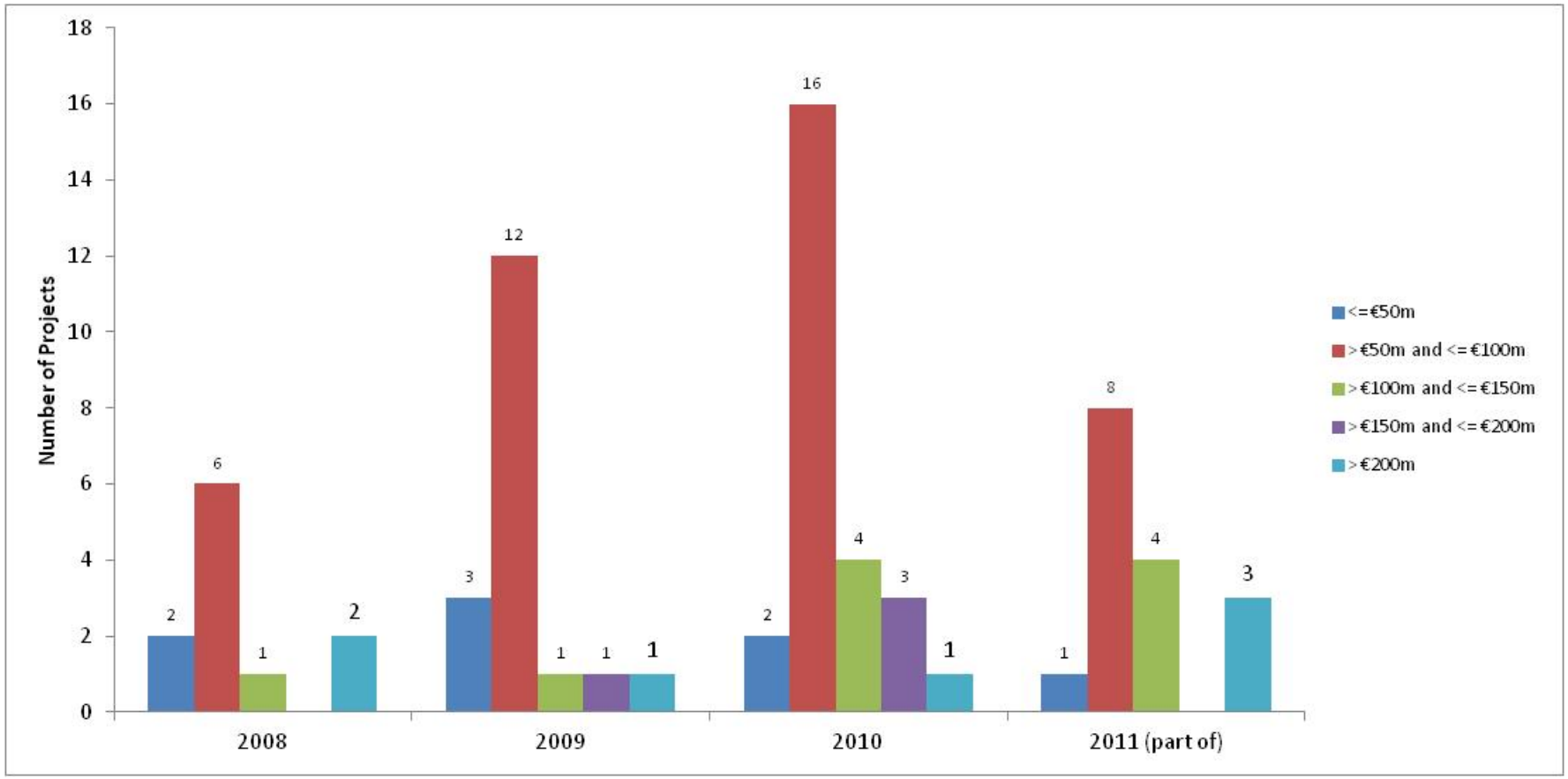


Figure 2: Number of non-JASPERS-assisted Major Projects by DG REGIO Application Year and by Project Size



Annex B5: Analysis of Timeline Durations: Major JASPERS-assisted Projects

Table 1: Average Project Planning Duration by Member State and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bulgaria		940 (3)		1957 (1)	727 (5)	934 (9)
Czech Republic	287 (3)	702 (7)	804 (4)	443 (1)	901 (7)	716 (22)
Estonia		1195 (1)	576 (2)	692 (1)		760 (4)
Hungary	561 (5)	553 (7)	797 (4)	659 (2)	768 (2)	653 (23)
Latvia	1541 (1)	1000 (1)	891 (3)		907 (1)	1020 (6)
Lithuania		1039 (2)				1039 (2)
Malta	834 (1)	876 (2)				862 (3)
Poland	751 (2)	726 (17)	576 (3)	1209 (3)	774 (7)	769 (32)
Romania	611 (7)	692 (16)	573 (17)	536 (5)	897 (8)	660 (53)
Slovakia				1104 (3)	723 (3)	913 (6)
Slovenia	955 (2)	594 (1)	552 (5)			658 (8)
All MS	654 (21)	730 (57)	644 (38)	877 (16)	818 (36)	734 (168)

Table 2: Average JASPERS Duration by Member State and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bulgaria		516 (3)		1394 (1)	561 (6)	631 (10)
Czech Republic	91 (3)	341 (10)	395 (4)	244 (2)	450 (13)	362 (32)
Estonia	375 (1)	543 (2)	229 (2)	502 (1)		404 (6)
Hungary	200 (6)	335 (8)	542 (6)	785 (3)	407 (8)	411 (31)
Latvia	358 (1)	412 (1)	419 (3)	959 (1)	466 (1)	493 (7)
Lithuania		550 (5)				550 (5)
Malta	555 (1)	543 (3)				546 (4)
Poland	411 (2)	352 (27)	317 (7)	1004 (8)	506 (12)	476 (56)
Romania	555 (7)	593 (16)	488 (17)	561 (5)	802 (11)	594 (56)
Slovakia	337 (1)	786 (4)	644 (3)	461 (3)	477 (5)	574 (16)
Slovenia	398 (2)	454 (1)	226 (5)			297 (8)
All MS	358 (24)	451 (80)	428 (47)	747 (24)	540 (56)	489 (231)

Table 3: Average DG REGIO Decision Duration by Member State and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bulgaria		358 (3)		436 (1)	232 (5)	297 (9)
Czech Republic	193 (3)	385 (7)	407 (4)	294 (1)	420 (7)	370 (22)
Estonia		269 (1)	331 (2)	125 (1)		264 (4)
Hungary	333 (5)	242 (7)	264 (4)	179 (2)	381 (5)	290 (23)
Latvia	396 (1)	278 (1)	316 (3)		399 (1)	337 (6)
Lithuania		405 (2)				405 (2)
Malta	78 (1)	150 (2)				126 (3)
Poland	331 (2)	296 17)	387 (3)	198 (3)	368 (7)	313 (32)
Romania	101 (7)	157 (16)	143 (17)	154 (5)	244 (8)	158 (53)
Slovakia				601 (3)	388 (3)	494 (6)
Slovenia	368 (2)	129 (1)	364 (5)			336 (8)
All MS	229 (21)	259 (57)	255 (38)	274 (16)	336 (36)	272 (168)

Table 4: Average Project Planning Duration by Member State and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bulgaria			998 (2)	531 (1)	677 (3)		1957 (1)	948 (2)			934 (9)
Czech Republic			856 (8)	831 (2)			351 (1)	533 (5)	703 (6)		716 (22)
Estonia				782 (3)						692 (1)	760 (4)
Hungary			654 (2)	763 (3)	813 (4)		412 (4)	652 (10)			653 (23)
Latvia		768 (1)	895 (2)	1012 (2)			1541 (1)				1020 (6)
Lithuania									1039 (2)		1039 (2)
Malta				995 (1)			834 (1)	757 (1)			862 (3)
Poland			799 (2)	805 (7)	946 (4)			554 (10)	1050 (5)	704 (4)	769 (32)
Romania	932 (1)		1344 (1)	828 (9)		637 (6)	600 (8)	593 (28)			660 (53)
Slovakia			1139 (3)	688 (3)							913 (6)
Slovenia			587 (1)	464 (3)			453 (1)	955 (2)	922 (1)		658 (8)
All MS	932 (1)	768 (1)	899 (21)	776 (34)	824 (11)	637 (6)	681 (17)	619 (58)	891 (14)	702 (5)	734 (168)

Table 5: Average JASPERS Duration by Member State and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bulgaria			886 (3)	338 (1)	272 (3)		1394 (1)	550 (2)			632 (10)
Czech Republic			381 (9)	328 (9)	737 (1)		75 (1)	347 (6)	388 (6)		362 (32)
Estonia				386 (4)						439 (2)	404 (6)
Hungary			405 (5)	402 (4)	634 (7)		134 (4)	376 (11)			411 (31)
Latvia	959 (1)	427 (1)	442 (2)	412 (2)			358 (1)				493 (7)
Lithuania				1002 (1)				477 (1)	556 (2)	159 (1)	550 (5)
Malta				582 (1)			555 (1)	618 (1)		429 (1)	546 (4)
Poland			515 (4)	408 (9)	708 (4)	626 (9)	1549 (1)	208 (16)	745 (7)	395 (6)	476 (56)
Romania	557 (1)		1051 (3)	701 (10)		468 (6)	536 (8)	552 (28)			594 (56)
Slovakia			597 (5)	378 (4)				669 (7)			574 (16)
Slovenia			188 (1)	271 (3)			202 (1)	398 (2)	381 (1)		297 (8)
All MS	758 (2)	427 (1)	543 (32)	455 (48)	588 (15)	563 (15)	498 (18)	442 (74)	565 (16)	383 (10)	489 (231)

Table 6: Average DG REGIO Decision Duration by Member State and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bulgaria			274 (2)	190 (1)	231 (3)		436 (1)	402 (2)			297 (9)
Czech Republic			461 (8)	550 (2)			272 (1)	234 (5)	318 (6)		370 (22)
Estonia				310 (3)						125 (1)	264 (4)
Hungary			394 (2)	317 (3)	212 (4)		275 (4)	299 (10)			290 (23)
Latvia		371 (1)	338 (2)	290 (2)			396 (1)				337 (6)
Lithuania									405 (2)		405 (2)
Malta				161 (1)			78 (1)	139 (1)			126 (3)
Poland			333 (2)	337 (7)	137 (4)			349 (10)	292 (5)	374 (4)	313 (32)
Romania	448 (1)		479 (1)	263 (9)		141 (6)	101 (8)	122 (28)			158 (53)
Slovakia			548 (3)	441 (3)							494 (6)
Slovenia			370 (1)	157 (3)			568 (1)	368 (2)	540 (1)		336 (8)
All MS	448 (1)	371 (1)	422 (21)	307 (34)	190 (11)	141 (6)	215 (17)	220 (58)	337 (14)	324 (5)	272 (168)

Table 7: Average Project Planning Duration by JASPERS Office and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bucharest	611 (7)	745 (20)	573 (17)	773 (6)	831 (13)	704 (63)
Luxembourg	834 (1)	787 (2)				803 (3)
Vienna	558 (10)	625 (15)	705 (13)	845 (6)	821 (15)	704 (59)
Warsaw	1014 (3)	790 (20)	694 (8)	1080 (4)	791 (8)	815 (43)
Total	654 (21)	730 (57)	644 (38)	877 (16)	818 (36)	734 (168)

Table 8: Average JASPERS Duration by JASPERS Office and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bucharest	555 (7)	581 (20)	488 (17)	700 (6)	717 (17)	600 (67)
Luxembourg	555 (1)	526 (2)				536 (3)
Vienna	229 (13)	421 (23)	438 (18)	528 (8)	442 (26)	412 (88)
Warsaw	393 (3)	393 (35)	328 (12)	950 (10)	503 (13)	478 (73)
Total	358 (24)	451 (80)	428 (47)	747 (24)	540 (56)	489 (231)

Table 9: Average DG REGIO Decision Duration by JASPERS Office and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Bucharest	101 (7)	187 (20)	143 (17)	201 (6)	239 (13)	178 (63)
Luxembourg	78 (1)	167 (2)				137 (3)
Vienna	298 (10)	301 (15)	346 (13)	409 (6)	401 (15)	347 (59)
Warsaw	353 (3)	310 (20)	346 (8)	180 (4)	372 (8)	319 (43)
Total	229 (21)	259 (57)	255 (38)	274 (16)	336 (36)	272 (168)

Table 10: Average Project Planning Duration by JASPERS Office and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bucharest	932 (1)		1113 (3)	816 (11)	677 (3)	637 (6)	751 (9)	617 (30)			704 (63)
Luxembourg							834 (1)	757 (1)	817 (1)		803 (3)
Vienna			868 (14)	673 (11)	813 (4)		408 (6)	653 (17)	734 (7)		704 (59)
Warsaw		768 (1)	847 (4)	833 (12)	946 (4)		1541 (1)	554 (10)	1085 (6)	702 (5)	815 (43)
All MS	932 (1)	768 (1)	899 (21)	776 (34)	824 (11)	637 (6)	681 (17)	619 (58)	891 (14)	702 (5)	734 (168)

Table 11: Average JASPERS Duration by JASPERS Office and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bucharest	557 (1)		969 (6)	661 (12)	272 (3)	468 (6)	632 (9)	552 (30)			600 (67)
Luxembourg							555 (1)	618 (1)	434 (1)		536 (3)
Vienna			432 (20)	344 (20)	647 (8)		136 (6)	450 (26)	387 (7)	375 (1)	412 (88)
Warsaw	959 (1)	427 (1)	490 (6)	440 (16)	708 (4)	626 (9)	954 (2)	224 (17)	737 (8)	384 (9)	478 (73)
All MS	758 (2)	427 (1)	543 (32)	455 (48)	588 (15)	563 (15)	498 (18)	442 (74)	565 (16)	383 (10)	489 (231)

Table 12: Average DG REGIO Decision Duration by JASPERS Office and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bucharest	448 (1)		342 (3)	247 (11)	231 (3)	141 (6)	138 (9)	141 (30)			178 (63)
Luxembourg							78 (1)	139 (1)	195 (1)		137 (3)
Vienna			463 (14)	349 (11)	212 (4)		323 (6)	288 (17)	350 (7)		347 (59)
Warsaw		371 (1)	335 (4)	323 (12)	137 (4)		396 (1)	349 (10)	346 (6)	324 (5)	319 (43)
All MS	448 (1)	371 (1)	422 (21)	307 (34)	190 (11)	141 (6)	215 (17)	220 (58)	337 (14)	324 (5)	272 (168)

Table 13: Average Project Planning Duration by Project Size and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
<= €50m							642 (13)	599 (7)	1194 (1)		654 (21)
> €50m and <= €100m			885 (5)	873 (5)	897 (6)	612 (5)	415 (2)	661 (26)	892 (4)	704 (4)	730 (57)
> €100m and <= €150m	932 (1)	768 (1)	792 (3)	564 (8)	1020 (1)	763 (1)	453 (1)	579 (18)	808 (4)		644 (38)
> €150m and <= €200m			1000 (3)	649 (3)	762 (1)		1957 (1)	665 (4)	1004 (3)	692 (1)	877 (16)
> €200m			908 (10)	865 (18)	635 (3)			479 (3)	734 (2)		818 (36)
All	932 (1)	768 (1)	899 (21)	776 (34)	824 (11)	637 (6)	681 (17)	619 (58)	891 (14)	702 (5)	734 (168)

Table 14: Average JASPERS Duration by Project Size and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
<= €50m					75 (1)		412 (13)	258 (8)	732 (1)	375 (1)	358 (24)
> €50m and <= €100m			443 (6)	469 (10)	647 (6)	337 (9)	232 (2)	476 (34)	452 (5)	370 (8)	451 (80)
> €100m and <= €150m	557 (1)	427 (1)	307 (3)	336 (9)	650 (2)	747 (2)	202 (1)	439 (24)	411 (4)		428 (47)
> €150m and <= €200m	959 (1)		503 (3)	408 (4)	995 (2)	954 (2)	1472 (2)	599 (5)	871 (4)	502 (1)	747 (24)
> €200m			615 (20)	500 (25)	394 (4)	1006 (2)		308 (3)	458 (2)		540 (56)
All	758 (2)	427 (1)	543 (32)	455 (48)	588 (15)	563 (15)	498 (18)	442 (74)	565 (16)	383 (10)	489 (231)

Table 15: Average DG REGIO Decision Duration by Project Size and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
<= €50m							177 (13)	296 (7)	445 (1)		229 (21)
> €50m and <= €100m			460 (5)	238 (5)	164 (6)	140 (5)	173 (2)	248 (26)	329 (4)	374 (4)	259 (57)
> €100m and <= €150m	448 (1)	371 (1)	410 (3)	260 (8)	160 (1)	146 (1)	568 (1)	173 (18)	396 (4)		255 (38)
> €150m and <= €200m			494 (3)	298 (3)	138 (1)		436 (1)	125 (4)	268 (3)	125 (1)	274 (16)
> €200m			384 (10)	349 (18)	270 (3)			199 (3)	287 (2)		336 (36)
All	448 (1)	371 (1)	422 (21)	307 (34)	190 (11)	141 (6)	215 (17)	220 (58)	337 (14)	324 (5)	272 (168)

Annex B6: Analysis of Timeline Durations - Major Projects Not in Receipt of JASPERS Assistance

Table 1: Average DG REGIO Decision Duration by Member State and Project Size

	<= €50m (n)	> €50m and <= €100m (n)	> €100m and <= €150m (n)	> €150m and <= €200m (n)	> €200m (n)	All (n)
Czech Republic		419 (2)	660 (1)			499 (3)
Estonia	118 (2)	273 (2)				195 (4)
Poland	(431) (2)	506 (18)	744 (1)	269 (1)	939 (1)	518 (23)
Romania	90 (2)	86 (2)	91 (4)	92 (1)		90 (9)
Slovenia					423 (1)	423 (1)
All	213 (6)	444 (24)	295 (6)	181 (2)	681 (2)	386 (40)

Table 2: Average DG REGIO Decision Duration by Member State and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Czech Republic	499 (3)										499 (3)
Estonia			344 (1)				138 (1)	150 (2)			195 (4)
Poland			660 (2)	365 (4)	421 (1)		580 (1)	454 (6)	484 (3)	661 (6)	518 (23)
Romania							78 (2)	93 (7)			90 (9)
Slovenia				423 (1)							423 (1)
All			527 (1)	376 (5)	421 (1)		219 (4)	245 (15)	484 (3)	661 (6)	386 (40)

Table 3: Average DG REGIO Decision Duration by Project Size and by Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
<= €50m							113 (2)	263 (4)			213 (6)
> €50m and <= €100m			391 (4)	397 (3)	421 (1)		324 (2)	361 (6)	484 (3)	644 (5)	444 (24)
> €100m and <= €150m			660 (1)					91 (4)		744 (1)	295 (6)
> €150m and <= €200m				269 (1)				92 (1)			181 (2)
> €200m			939 (1)	423 (1)							681 (2)
All			527 (6)	376 (5)	421 (1)		219 (4)	245 (15)	484 (3)	661 (6)	386 (40)

Capabilities on project:
Economics

Annex B7: Analysis of Timeline Durations – Non-Major JASPERS Projects

Table 1: Average Project Planning Duration by Member State and Project Sector

Country	Ports & Waterways (n)	Airport (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water & Wastewater (n)	Knowledge Economy (n)	Other (n)	Grand Total (n)
Bulgaria							955 (2)				955 (2)
Cyprus						461 (1)	727 (1)				594 (2)
Czech Republic					307 (1)			220 (2)			249 (3)
Estonia											
Hungary								586 (1)			586 (1)
Latvia					556 (1)						556 (1)
Lithuania											
Malta				910 (1)			1064 (1)				987 (2)
Poland					991 (2)	1113 (3)	925 (2)	578 (6)	1497 (1)	1058 (1)	879 (15)
Romania	904 (3)		1382			523 (2)	467 (7)				904 (20)
Slovakia				1100 (1)				330 (2)			587 (3)
Slovenia		916 (1)		171 (2)			665 (1)	349 (4)			415 (8)
Grand Total	904 (3)	916 (1)	1382	588 (4)	711 (4)	808 (6)	678 (14)	436 (15)	1497 (1)	1058 (1)	760 (57)

Table 2: Average JASPERS Duration by Member State and Project Sector

Country	Ports & Waterways (n)	Airport (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water & Wastewater (n)	Knowledge Economy (n)	Other (n)	Grand Total (n)
Bulgaria							591 (11)	303 (1)			567 (12)
Cyprus						257 (1)	359 (3)				334 (4)
Czech Republic					141 (1)	447 (1)		228 (3)			254 (5)
Estonia			301 (1)	279 (1)							290 (2)
Hungary								355 (2)			355 (2)
Latvia					362 (1)						362 (1)
Lithuania				654 (1)							654 (1)
Malta				800 (1)		546 (1)	326 (1)			225 (1)	474 (4)
Poland					439 (2)	630 (6)	723 (3)	415 (6)	870 (1)	115 (1)	542 (19)
Romania	552 (3)		1403 (12)			751 (4)	372 (7)				927 (26)
Slovakia			576 (2)	388 (1)				252 (2)			409 (5)
Slovenia		674 (1)		89 (2)			530 (1)	429 (6)			396 (10)
Grand Total	552 (3)	674 (1)	1219 (15)	383 (6)	345 (4)	618 (13)	508 (26)	363 (20)	870 (1)	170 (2)	594 (91)

Table 3 Average Project Planning Duration by Member State and Project Size

Country	<€10m (n)	>€10m and <=€20m (n)	>€20m and <=€30m (n)	>€30m and <=€40m (n)	>€40m (n)	Not Specified (n)	Grand Total (n)
Bulgaria		1145 (1)	765 (1)				955 (2)
Cyprus	461 (1)			727 (1)			594 (2)
Czech Republic			307 (1)	220 (2)			249 (3)
Estonia							
Hungary					586 (1)		586 (1)
Latvia			556 (1)				556 (1)
Lithuania							
Malta	910 (1)			1064 (1)			987 (2)
Poland	1183 (1)	1058 (1)	1211 (3)	1020 (1)	622 (8)	1321 (1)	879 (15)
Romania	903 (6)	1412 (3)	945 (4)	699 (3)	512 (3)	1019 (1)	904 (20)
Slovakia				330 (2)	1100 (1)		587 (3)
Slovenia		706 (3)	311 (3)	64 (1)	202 (1)		415 (8)
Grand Total	886 (9)	1070 (8)	767 (13)	552 (11)	600 (14)	1170 (2)	760 (57)

Table 4 Average JASPERS Duration by Member State and Project Size

Country	<€10m (n)	>€10m and <=€20m (n)	>€20m and <=€30m (n)	>€30m and <=€40m (n)	>€40m (n)	Not Specified (n)	Grand Total (n)
Bulgaria	634 (3)	622 (5)	364 (3)	707 (1)			567 (12)
Cyprus	297 (2)			371 (2)			334 (4)
Czech Republic			269 (3)	232 (2)			254 (5)
Estonia			279 (1)		301 (1)		290 (2)
Hungary			428 (1)		281 (1)		355 (2)
Latvia			362 (1)				362 (1)
Lithuania				654 (1)			654 (1)
Malta	800 (1)	546 (1)		326 (1)	225 (1)		474 (4)
Poland	718 (3)	115 (1)	626 (5)	278 (1)	437 (8)	1118 (1)	542 (19)
Romania	796 (7)	1424 (5)	893 (4)	848 (4)	685 (5)	1014 (1)	927 (26)
Slovakia			576 (1)	360 (3)	388 (1)		409 (5)
Slovenia		463 (4)	313 (3)	540 (2)	86 (1)		396 (10)
Grand Total	689 (16)	796 (16)	508 (22)	513 (17)	456 (18)	1066 (2)	594 (91)

Table 5 Average Project Planning Duration by Project Sector and Project Size

Sector	<€10m (n)	>€10m and <=€20m (n)	>€20m and <=€30m (n)	>€30m and <=€40m (n)	>€40m (n)	Not Specified (n)	Grand Total (n)
Airport		916 (1)					916 (1)
Energy	822 (2)		835 (1)		523 (2)	1321 (1)	808 (6)
Knowledge Economy			1497 (1)				1497 (1)
Other		1058 (1)					1058 (1)
Ports & Waterways	847					1019 (1)	904 (3)
Railways	1448 (2)	1412 (3)	1314 (2)	1296 (1)			1382 (8)
Roads	910 (1)	139 (1)			651 (2)		588 (4)
Solid Waste	415 (2)	1145 (1)	777 (5)	648 (4)	519 (2)		678 (14)
Urban Transport			432 (2)	1020 (1)	962 (1)		711 (4)
Water & Wastewater		1064 (1)	134 (2)	233 (5)	579 (7)		436 (15)
Grand Total	886 (9)	1070 (8)	767 (13)	552 (11)	600 (14)	1170 (2)	760 (57)

Table 6 Average JASPERS Duration by Project Sector and Project Size

Sector	<€10m (n)	>€10m and <=€20m (n)	>€20m and <=€30m (n)	>€30m and <=€40m (n)	>€40m (n)	Not Specified (n)	Grand Total (n)
Airport		674 (1)					674 (1)
Energy	517 (3)	546 (1)	453 (4)		751 (4)	1118 (1)	618 (13)
Knowledge Economy			870 (1)				870 (1)
Other		115 (1)			225 (1)		170 (2)
Ports & Waterways	321 (2)					1014 (1)	552 (3)
Railways	1406 (3)	1424 (5)	1068 (3)	1147 (3)	301 (1)		1219 (15)
Roads	800 (1)	91 (1)	279 (1)	654 (1)	237 (2)		383 (6)
Solid Waste	545 (7)	622 (5)	526 (6)	383 (6)	418 (2)		508 (26)
Urban Transport			252 (2)	278 (1)	599 (1)		345 (4)
Water & Wastewater		544 (2)	272 (5)	341 (6)	396 (7)		363 (20)
Grand Total	689 (16)	796 (16)	508 (22)	513 (17)	456 (18)	1066 (2)	594 (91)

Table 7: Average Project Planning Duration by Project Sector and JASPERS Office

Sector	Bucharest (n)	Luxembourg (n)	Vienna (n)	Warsaw (n)	Grand Total (n)
Airport			916 (1)		916 (1)
Energy	523 (2)	461 (1)		1113 (3)	808 (6)
Knowledge Economy				1497 (1)	1497 (1)
Other				1058 (1)	1058 (1)
Ports & Waterways	904 (3)				904 (3)
Railways	1382 (8)				1382 (8)
Roads	910 (1)		480 (3)		588 (4)
Solid Waste	576 (9)	896 (2)	665 (1)	925 (2)	678 (14)
Urban Transport			307 (1)	846 (3)	711 (4)
Water & Wastewater			342 (9)	578 (6)	436 (15)
Grand Total	909 (23)	751 (3)	427 (15)	859 (16)	760 (57)

Table 8 Average JASPERS Duration by Project Sector and JASPERS Office

Sector	Bucharest (n)	Luxembourg (n)	Vienna (n)	Warsaw (n)	Grand Total (n)
Airport			674 (1)		674 (1)
Energy	751 (4)	402 (2)	447 (1)	630 (6)	618 (13)
Knowledge Economy				870 (1)	870 (1)
Other		225 (1)		115 (1)	170 (2)
Ports & Waterways	552 (3)				552 (3)
Railways	1403 (12)		576 (2)	301 (1)	1219 (15)
Roads	800 (1)		188 (3)	467 (2)	383 (6)
Solid Waste	506 (18)	351 (4)	530 (1)	723 (3)	508 (26)
Urban Transport			141 (1)	413 (3)	345 (4)
Water & Wastewater	303 (1)		344 (13)	415 (6)	363 (20)
Grand Total	813 (39)	347 (7)	363 (22)	517 (23)	594 (91)

Capabilities on project:
Economics

Annex B8: Analysis of Timeline Durations - JASPERS Horizontal Assignments

Table 1: Average JASPERS Duration by Member State and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bulgaria					394 (1)	373 (1)		402 (3)		527 (3)	444 (8)
Cyprus					1340 (1)					398 (2)	712 (3)
Czech Republic								216 (1)	384 (1)	644 (1)	415 (3)
Estonia				108 (1)				147 (2)		338 (1)	185 (4)
Hungary						167 (1)				1003 (1)	585 (2)
Latvia					1078 (1)			1051 (1)		347 (1)	825 (3)
Lithuania						237 (1)	145 (2)			115 (2)	151 (5)
Malta							228 (1)			388 (2)	335 (3)
Multi			253 (1)							648 (3)	549 (4)
Poland		158 (1)	645 (1)			383 (3)	152 (4)	408 (5)		557 (4)	365 (19)
Romania						245 (9)	154 (5)	371 (5)	529 (1)	370 (9)	300 (29)
Slovakia								601 (1)		1461 (1)	1031 (2)
Slovenia										412 (2)	412 (2)
Total		156 (1)	449 (2)	108 (1)	937 (3)	275 (15)	158 (12)	404 (18)	339 (3)	484 (32)	388 (87)

Capabilities on project:
Economics

Table 2: Average JASPERS Duration by JASPERS Office and Project Sector

	Ports and Waterways (n)	Airports (n)	Railways (n)	Roads (n)	Urban Transport (n)	Energy (n)	Solid Waste (n)	Water and Wastewater (n)	Knowledge Economy (n)	Other (n)	Total (n)
Bucharest					394 (1)	(258) 10)	154 (5)	383 (8)	529 (1)	409 (12)	331 (37)
Luxembourg			253 (1)		1340 (1)		228 (1)			515 96)	545 (9)
Vienna						167 (1)		409 (2)	384 (1)	786 (5)	589 (9)
Warsaw		156 (1)	645 (1)	108 (1)	1078 (1)	346 (4)	150 (6)	423 (8)	103 (1)	397 (9)	354 (32)
Total		156 (1)	449 (2)	108 (1)	937 (3)	275 (15)	158 (12)	404 (18)	339 (3)	484 (32)	388 (87)

Annex B9: Change in Timeline Durations over Time - Major Projects in Receipt of JASPERS Assistance

Table 1: Average Project Planning Duration by the JASPERS Start Year

JASPERS Start Year	Average Project Planning Duration (elapsed days)	No Projects (n)
2006	1063	16
2007	968	36
2008	718	41
2009	579	59
2010	492	16
All Years	734	168

Table 2: Average JASPERS Duration by the JASPERS Start Year

JASPERS Start Year	Average JASPERS Duration (elapsed days)	No Projects (n)
2006	861	16
2007	630	36
2008	429	41
2009	311	59
2010	261	16
All Years	456	168

Table 3: Average DG REGIO Decision Duration by JASPERS Start Date

JASPERS Start Year	Average DG REGIO Decision Duration (elapsed days)	No Projects (n)
2006	219	16
2007	317	36
2008	287	41
2009	259	59
2010	237	16
All Years	272	168

Table 4: Average Active DG REGIO Decision Duration by JASPERS Start Date

JASPERS Start Year	Average Active DG REGIO Decision Duration (elapsed days)	No Projects (n)
2006	109	16
2007	155	36
2008	155	41
2009	158	59
2010	140	15
All Years	150	167

Table 5: Average Interruption Duration by JASPERS Start Date

JASPERS Start Year	Average Interruption Duration (elapsed days)	No Projects (n)
2006	110	16
2007	163	36
2008	132	41
2009	101	59
2010	76	15
All Years	120	167

Table 6: Average Project Planning Timelines by the DG Decision Year

DG Decision Year	Average Project Planning Duration (elapsed days)	No Projects (n)
2008	677	10
2009	641	35
2010	714	58
2011	809	64
2012	922	1
All Years	734	168

Table 7: Average JASPERS Duration Timelines by DG Decision Year

DG Decision Year	Average JASPERS Duration (elapsed days)	No Projects (n)
2008	635	10
2009	432	35
2010	411	58
2011	483	64
2012	381	1
All Years	456	168

Table 8: Average DG REGIO Decision Duration by DG Decision Date

DG Decision Year	Average DG REGIO Decision Duration (elapsed days)	No Projects (n)
2008	142	10
2009	264	35
2010	260	58
2011	304	64
2012	540	1
All Years	272	168

Table 9: Average Active DG REGIO Decision Duration by DG Decision Date

DG Decision Year	Average Active DG REGIO Decision Duration (elapsed days)	No Projects (n)
2008	86	10
2009	112	35
2010	153	58
2011	179	64
All Years	150	167

Table 10: Average Interruption Duration by DG Decision Date

DG Decision Year	Average Interruption Duration (elapsed days)	No Projects (n)
2008	55	10
2009	152	35
2010	107	58
2011	125	64
All Years	120	167

Table 11: Average Project Planning Timelines by the DG Application Year

DG Decision Year	Average Project Planning Duration (elapsed days)	No Projects (n)
2007	618	5
2008	663	30
2009	767	55
2010	745	62
2011	746	16
All Years	734.02	168

Table 12: Average JASPERS Duration Timelines by DG Application Year

DG Decision Year	Average JASPERS Duration (elapsed days)	No Projects (n)
2007	525	5
2008	432	30
2009	442	55
2010	446	62
2011	567	16
All Years	456	168

Table 13: Average DG REGIO Decision Duration by DG Application Date

DG Decision Year	Average DG REGIO Decision Duration (elapsed days)	No Projects (n)
2007	249	5
2008	282	30
2009	301	55
2010	275	62
2011	155	16
All Years	272	168

Table 14: Average Active DG REGIO Decision Duration by DG Application Date

DG Decision Year	Average Active DG REGIO Decision Duration (elapsed days)	No Projects (n)
2007	85	5
2008	116	30
2009	163	55
2010	171	62
2011	111	15
All Years	150	167

Table 15: Average Interruption Duration by DG Application Date

DG Decision Year	Average Interruption Duration (elapsed days)	No Projects (n)
2007	164	5
2008	167	30
2009	138	55
2010	104	62
2011	18	15
All Years	120	167

Annex B9: Results of Multivariate Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.729[a]	.531	.478	129.588

a. Predictors: (Constant), Dummy Hungary, Dummy Ports, Dummy Airports, Dummy Lithuania, Dummy Malta, Dummy Slovakia, Dummy Energy , Dummy Estonia, Dummy Bulgaria, Dummy Slovenia , Total_Cost_DG, Dummy Other , Dummy Solid Waste, Dummy Rail, Dummy Urban Trans, Dummy Jaspers, Dummy Knowledge, Dummy Latvia, Dummy Czech, Dummy Roads, Dummy Poland

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3517722.070	21	167510.575	9.975	.000[a]
	Residual	3106706.365	185	16793.007		
	Total	6624428.435	206			

a. Predictors: (Constant), Dummy Hungary, Dummy Ports, Dummy Airports, Dummy Lithuania, Dummy Malta, Dummy Slovakia, Dummy Energy , Dummy Estonia, Dummy Bulgaria, Dummy Slovenia , Total_Cost_DG, Dummy Other , Dummy Solid Waste, Dummy Rail, Dummy Urban Trans, Dummy Jaspers, Dummy Knowledge, Dummy Latvia, Dummy Czech, Dummy Roads, Dummy Poland

b. Dependent Variable: DG Duration

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	196.279	28.892		6.794	.000
	Total_Cost_DG	6.807E-8	.000	.084	1.436	.153
	Dummy Jaspers	-86.721	25.905	-.191	-3.348	.001
	Dummy Airports	104.718	143.972	.041	.727	.468
	Dummy Energy	25.742	56.547	.024	.455	.649
	Dummy Knowledge	24.766	40.397	.038	.613	.541
	Dummy Ports	328.639	131.121	.127	2.506	.013
	Dummy Roads	37.495	30.027	.082	1.249	.213
	Dummy Rail	117.497	34.257	.221	3.430	.001
	Dummy Solid Waste	9.453	32.625	.016	.290	.772
	Dummy Urban Trans	-102.001	44.698	-.128	-2.282	.024
	Dummy Other	161.104	45.591	.202	3.534	.001
	Dummy Poland	200.000	29.112	.494	6.870	.000
	Dummy Czech	194.925	36.383	.355	5.358	.000
	Dummy Bulgaria	184.247	51.195	.199	3.599	.000
	Dummy Estonia	20.728	51.095	.022	.406	.685
	Dummy Latvia	148.877	63.281	.140	2.353	.020
	Dummy Lithuania	266.584	101.181	.146	2.635	.009
	Dummy Slovakia	291.748	59.595	.274	4.896	.000
	Dummy Slovenia	184.349	48.209	.210	3.824	.000
	Dummy Malta	-3.250	77.536	-.002	-.042	.967
	Dummy Hungary	168.623	33.459	.296	5.040	.000

a. Dependent Variable: DG Duration

Excluded Variables[b]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Dummy Water/Waste Water	.[a]	.	.	.	.000
	Dummy Romania	.[a]	.	.	.	.000

a. Predictors in the Model: (Constant), Dummy Hungary, Dummy Ports, Dummy Airports, Dummy Lithuania, Dummy Malta, Dummy Slovakia, Dummy Energy , Dummy Estonia, Dummy Bulgaria, Dummy Slovenia , Total_Cost_DG, Dummy Other , Dummy Solid Waste, Dummy Rail, Dummy Urban Trans, Dummy Jaspers, Dummy Knowledge, Dummy Latvia, Dummy Czech, Dummy Roads, Dummy Poland

b. Dependent Variable: DG Duration

Annex B10: Change in Timeline Durations over Time - Major Projects Not in Receipt of JASPERS Assistance

Table 1: Average DG REGIO Decision Duration by DG Application Date

DG Decision Year	Average DG REGIO Decision Duration (elapsed days)	No Projects (n)
2008	549	10
2009	478	14
2010	228	12
2011	130	4
All Years	386	40

Table 2: Average Active DG REGIO Decision Duration by DG Application Date

DG Decision Year	Average Active DG REGIO Decision Duration (elapsed days)	No Projects (n)
2007		
2008	203	10
2009	253	14
2010	149	12
2011	77	4
All Years	386	40

Table 3: Average Interruption Duration by DG Application Date

DG Decision Year	Average Interruption Duration (elapsed days)	No Projects (n)
2008	346	10
2009	225	14
2010	79	12
2011	53	4
All Years	194	40

Annex C1: JASPERS Miss Rate

Table 1: Proportion of Projects not availing of JASPERS Assistance and DG for Regional Policy Interrupted

	No of Projects which JASPERS did not assist on Topic	No of these Projects which DG REGIO Interrupted on	JASPERS Miss Rate
Project Concept and Programming	102	25	24.5
Project Design	113	28	24.8
Project Cost Estimation	132	20	15.2
Demand Analysis & Modelling	108	15	13.9
Cost Benefit Analysis	37	16	43.2
Environmental Issues	101	42	41.6
Risk & Sensitivity Analysis	115	28	24.3
Competition and State Aids	135	5	3.7
Funding and Financing Issues	96	36	37.5
Procurement	132	10	7.6
Project Implementation & Structures	114	26	22.8