Study to determine flat-rate revenue percentages for the sectors or subsectors within the fields of (i) ICT, (ii) research, development and innovation and (iii) energy efficiency to apply to net revenue generating operations co-financed by the European Structural and Investment Funds (ESI Funds) in 2014-2020

EXECUTIVE SUMMARY
EUROPEAN COMMISSION
Directorate-General for Regional and Urban Policy
Directorate F — Operational Efficiency and Central Europe
Unit F1 — Competence Centre Operational Efficiency

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Study to determine flat-rate revenue percentages for the sectors or subsectors within the fields of (i) ICT, (ii) research, development and innovation and (iii) energy efficiency to apply to net revenue generating operations co-financed by the European Structural and Investment Funds (ESI Funds) in 2014-2020
The European Commission, Directorate Regional and Urban Policy, has selected CSIL, in partnership with t33, for a service contract (CCI No. 2013CE160AT111) to determine flat-rate revenue percentages for the sectors or subsectors within the fields of (i) ICT, (ii) research, development and innovation and (iii) energy efficiency to apply to net revenue generating operations co-financed by the European Structural and Investment (ESI) Funds in 2014-2020.

This Executive Summary presents in a concise way the results of the study, including the description and quantification of revenue generating projects by sectors and subsectors, the analysis of expected profitability and the estimation of flat-rate revenue percentages.

The results of the study have been discussed with the Commission services in occasion of the Third Steering Committee meeting, held in Brussels on February the 16th, and presented to the Member States during the Experts Group meeting held on March the 13th.

The information and views set out in this Executive Summary are those of the authors and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission’s behalf may be held responsible for the use which may be made of the information contained therein.
Executive summary

Motivation and objective

This study provides the information basis that will feed into the activities of the European Commission when formulating the delegated act referred to in Art. 61(3) of Regulation (EU) No. 1303/2013. The objective of the study is to determine the flat rate revenue percentages for sectors or sub-sectors within the fields of Information and Communication Technologies (ICT), Research, Development and Innovation (RDI), and Energy Efficiency (EE) that should be applied to revenue-generating operations co-financed by the European Structural and Investment (ESI) Funds over the period 2014-2020.

The flat rate approach implies that Member States (MSs) may choose to apply a flat rate revenue percentage to proportionally reduce the operation’s eligible expenditure, as an alternative to project-specific calculation of discounted net revenue (or to application of reduced co-financing rates for particular priority axes).1

On the basis of historical data, market profitability assessment and additional evidence from interviews with Managing Authorities (MAs), beneficiaries and market experts, the present study discusses the extent to which the application of flat rates is feasible in the selected sectors and sub-sectors and, when relevant, suggests the rates that should be applied.

Methodology

Following the provisions of Art. 61(3), flat rates must be determined “taking into account historical data, the potential for cost recovery and the polluter-pays principle where applicable” of those operations that have been financed in the period 2007-13 under the provisions of Art. 55 of Reg. 1083/2006. Historical data relates to the so-called “Funding Gap” (FG) rate, defined as the share of discounted investment cost not covered by discounted net revenue, which is the parameter used in the period 2007-2013 to modulate the eligible expenditure and in turn the EU grant.2

Several sources of information were investigated at both EU and MS levels to collect the relevant historical data, including:

- the Major Projects sample extracted from the “Infoview” database of DG REGIO;
- the JASPERS archive on revenue-generating operations collected in early 2013;
- information collected by means of a structured survey of the Managing Authorities (MAs) of the European Union;
- information collected by means of an in-depth analysis of 14 selected Operational Programmes (OPs) in the Czech Republic, France, Italy, Lithuania, Poland, Slovakia, Spain and the UK.

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1 See Art. 61(2) of Reg. 1303/2013.
2 Note that the rules between the programming periods have slightly changed. The analysis of the “financing gap” does not appear anymore in the new legislation and has been replaced with the “calculation of the discounted net revenue of the operation” as referred to in Article Art. 61(3).
In addition, interviews were carried out with project analysts, business associations and market operators to complement and better qualify the quantitative evidence, as well as to discuss the main profitability factors of the markets.

Finally, a financial statement analysis at the firm level was carried out based on the balance sheet data of 257,726 firms operating in sectors that are comparable to the investment projects considered in this study. The objective was to estimate trends in sector profitability and homogeneity in order to better frame the flat rate revenue percentages calculated on the project’s historical data.3

**Findings**

1. **Critical lack of historical data for revenue-generating projects in the selected sectors 2007-13**

As observed by a previous assessment,4 the existing historical data is limited. The collected data set includes a total of 206 operations, of which 69 in RDI, 34 in ICT and 103 in the EE sector.

According to the data collected from the MAs, revenue-generating operations as defined in Art. 55 of Reg. 1083/2006 are estimated to account for around 0.5% of total operations financed in RDI, 0.1% in ICT and 0.8% in EE. In the remaining cases:

- Operations were exempted from the application of Art. 55 of Reg. 1083/2006 because they did not generate revenues or the revenues did not fully cover the operating costs. This was true for about 16% of total operations in RDI; 26% in ICT and 48% in EE. Operations in RDI were exempted in many cases because, owing to the high degree of uncertainty related to the research product, the expected revenues were not sufficient to cover the operational costs. In the case of district heating or grid efficiency interventions under EE, the underlying reason was that savings in operating costs were offset by an equal reduction in the subsidy (or tariff) received, the two effects cancelling each other out.

- Operations were exempted because the total cost was less than EUR 1,000,000 (27% of total operations in RDI; 54% in ICT and 34% in EE). This involved operations in ICT supporting SMEs to provide, install and service computer equipment and software. This was also the case for projects related to the thermal insulation of buildings or housing, and to studies, laboratory activities, exchange of good practices, as far as the EE and RDI sectors were concerned, respectively.

- Operations were subject to the rules on State aid in keeping with Art. 87 of the Treaty (57% of total operations in RDI; 20% in ICT and 17% in EE). This was the main exemption affecting investments that support research and innovation in firms, which entailed the obligation to ensure conformity with the EU State aid framework. This was also frequent in broadband investments, where EU State aid regulations are generally applicable except for certain categories of

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3 Given the conceptual (and computational) differences between project and firm performances, as well as the specific scope of interventions supported by the Cohesion Policy, the financial analysis at the firm level should not be meant as a tool to estimate the absolute values of the returns that can be achieved by investments supported by ESI Funds.

4 See JASPERS (2011), Implications of the use of a flat rate in revenue-generating projects.
aid compatible with the internal market in accordance with the General Block Exemption Regulation.

2. **Reference flat rates can be calculated only for a number of sectors and sub-sectors**

The lack of a comprehensive set of historical data is exacerbated when splitting the sectors into sub-sectors, with problems of accountability encountered in terms of the size, homogeneity and geographical coverage of the sample.

The results of the statistical analysis of FG rates, based on sectors and sub-sectors with sufficient evidence, are taken as a reference indicator for the estimation of flat rates for the period 2014-20. The flat rate revenue percentages were estimated as the best approximation of: $\text{Flat rate} = 1 - \text{Average FG}$.

The results of the analysis of FG rates are presented below:

<table>
<thead>
<tr>
<th>Sector (sub-sector)</th>
<th>No. of Projects</th>
<th>No. of countries</th>
<th>Avg. FG (%)</th>
<th>Median FG (%)</th>
<th>Min. FG (%)</th>
<th>Max. FG (%)</th>
<th>Standard Dev. FG (%)</th>
<th>Max/Min ratio</th>
<th>Resulting Flat Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDI</td>
<td>69</td>
<td>12</td>
<td>81.5</td>
<td>87.7</td>
<td>19.5</td>
<td>99.9</td>
<td>19.2</td>
<td>5.1</td>
<td>20</td>
</tr>
<tr>
<td>Research</td>
<td>23</td>
<td>7</td>
<td>85.2</td>
<td>95.0</td>
<td>46.1</td>
<td>99.9</td>
<td>17.2</td>
<td>2.1</td>
<td>15</td>
</tr>
<tr>
<td>Innovation</td>
<td>46</td>
<td>10</td>
<td>79.7</td>
<td>87.5</td>
<td>19.5</td>
<td>99.7</td>
<td>20.1</td>
<td>5.1</td>
<td>20</td>
</tr>
<tr>
<td>ICT</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadband</td>
<td>21</td>
<td>6</td>
<td>69.8</td>
<td>70.3</td>
<td>16.5</td>
<td>98.8</td>
<td>23.2</td>
<td>6.0</td>
<td>30</td>
</tr>
<tr>
<td>EE</td>
<td>91</td>
<td>8</td>
<td>58.8</td>
<td>58.9</td>
<td>14.5</td>
<td>95.2</td>
<td>20.9</td>
<td>6.5</td>
<td>40</td>
</tr>
<tr>
<td>EE in Buildings</td>
<td>35</td>
<td>3</td>
<td>50.9</td>
<td>48.8</td>
<td>14.5</td>
<td>92</td>
<td>19.9</td>
<td>6.3</td>
<td>50</td>
</tr>
<tr>
<td>District heating</td>
<td>42</td>
<td>5</td>
<td>69.8</td>
<td>70.7</td>
<td>34.5</td>
<td>95.2</td>
<td>16.1</td>
<td>2.8</td>
<td>30</td>
</tr>
<tr>
<td>Grid efficiency</td>
<td>14</td>
<td>2</td>
<td>50.9</td>
<td>54.2</td>
<td>15.5</td>
<td>82.3</td>
<td>21.2</td>
<td>5.5</td>
<td>50</td>
</tr>
</tbody>
</table>

3. **Large variations in revenue generation occur across projects within the same sector or sub-sector**

The sectors and sub-sectors concerned are heterogeneous in terms of capacity to generate revenues, as shown by the distance between minimum and maximum FG rates, as well as the standard deviation.

The main reason for the large variations in revenues in RDI is the heterogeneity of the industry; project concepts and intervention logic vary according to the field of application. In fact, what is considered an acceptable and normal level of profitability differs greatly from one scientific field to the next. In general, highly innovative sectors and technology-intensive sectors are those that generate higher profits.

As to ICT, the profitability of broadband investments can vary considerably both across and within countries. The experts and the business operators interviewed stressed how investment profitability is linked to the characteristics of the implementation area, and in particular to the population density and the intensity of
the regulatory framework. Accordingly, projects sharing similar technical characteristics but implemented in different areas, even in the same country, can record different financial performances.

Variability in EE can be explained by the differences in both project size, where small operations generally have a lower FG than larger projects, and project type, where investments in district heating perform worse than in grid efficiency or renewables. Such differences can be partly explained by the fact that (renewable) electricity delivered to the grid can more easily generate a revenue than heat provided to final user through district heating, where prices are often defined at an administrative level and do not accurately reflect operational costs.

4. The calculated flat rates are in line with estimated market profitability in the different sectors

Overall, the calculated flat rates were found to be consistent with the market trends in the different sectors, as discussed qualitatively with the stakeholders interviewed, and also quantitatively by means of the financial statement analysis at firm level.

Focusing on RDI, the estimated flat rates show a relatively low capacity for revenue generation, where, on average, more than 80% of the initial investment is not covered by the expected net revenues. This aspect was stressed during the interviews. As a matter of fact, RDI projects substantially differ from conventional business support measures since they support activities that are experimental and far from the market. Consequently, they are less profitable and their financial sustainability depends on subsidies or other contributions from the MSs. The quantitative analysis supports this finding and shows that those firms and institutes whose core business is research performed negatively over the period 2007-12, as measured by an average ROA of 0.5%. This is presumably the result of a contraction in public and private expenditure for research purposes, especially basic and experimental, in times of recession.

At sub-sector level, operations in Innovation show greater revenue-generation potential (FR=20%) than operations in Research (FR=15%). As pointed out by the interviewees, this is explained by the proximity to the market, which is a primary factor affecting the revenue-generation capacity. The closer to the market, the higher the profitability of the investment. Accordingly, incubators and science parks generate higher revenues (in relative terms) than centres for fundamental or applied research. Again, the analysis of financial statements at firm level confirms this. Those firms that are closer to the market and not dependent on public funding performed well over the period of reference, with an average ROA of 8.3%.

Turning to ICT, the results of the FG rates analysis show that Broadband is a sector with good revenue-generation capacity (FR=30%) and this is in line with the expectations of the business operators, according to whom this business involves high levels of risk and uncertainty, but also potential for profit. The results of the analysis of financial statements confirm the positive performance of the industry over the period 2007-12, as well as its stability over time, even if large variations in firms profits occur depending on the conditions of the markets where these operate.

Finally, as to EE, the analysis shows that this is the sector with the largest revenue-generation capacity. The calculated FR (40%) is the highest in the sample, including those sectors where flat rates were already calculated by the legislator. This aspect is linked to the nature of the interventions aimed at energy efficiency. By cutting energy
costs, these interventions generate a net income that is accrued by service providers (e.g. in the case of district heating or electricity distribution) if the saving is not (fully) reflected in an equal reduction in the sale price. As pointed out by sector experts, this mechanism should also be accounted for in light of the future energy price scenario. Energy prices are expected to increase in coming years. The higher the prices, the larger the effectiveness of the projects and, in turn, the expected financial gains.

Conclusions

We suggest establishing the following flat rate revenue percentages for the selected sectors and sub-sectors:

- **RDI: 20%**. The choice to establish a unique flat rate for the sector as a whole is based on the consideration that challenges exist in defining project types according to an agreed classification system, because projects can encompass multiple activities that include several aspects of the innovation process (e.g. in the case of large “umbrella” projects that incorporate different types of intervention). Therefore, from the beneficiaries’ perspective, a unique flat rate for the sector might have greater legal certainty when applying for co-financing. In addition, a disaggregation of rates for sub-sectors is of less importance in RDI because these projects are subject to considerable uncertainty and actual profitability may therefore vary significantly compared to the projections made at the project appraisal and approval stage. Finally, the volatility of revenues (as measured by the standard deviation in the FG rate) is not reduced when the analysis is narrowed down to the sub-sector level.

- **Broadband: No Flat Rate**. The key motivation lies in the consideration that broadband investments show large variations in financial profitability both across and within countries. The main drivers of profit are the characteristics of the implementation area, including population density and the intensity of the regulatory framework. Hence, to avoid over-compensating operations implemented in favourable markets and under-compensating those targeting the more disadvantaged regions, it would be necessary to divide the flat rates into at least two investment types. However, given the limited data available (only 21 operations, of which more than half submitted in France), such disaggregation of the sample is not possible.

- **EE: No Flat Rate**. EE investments show large variations in financial profitability. Energy prices are the main drivers of profit and these can be expected to be highly variable over time and across countries. The profitability of the sector is also influenced by other country-specific policy factors, especially in terms of price setting and broader regulatory frameworks. Hence, it is highly likely that any possible over-(under)compensation generated by the adoption of the flat rate system would be unevenly distributed across and within the MSs. Considering that many OPs are likely to support operations in different sub-sectors of EE, the establishment of a unique flat rate for the sector as a whole may be seen as too risky by the MAs, which may not be able to finance projects in certain sub-sectors (e.g. district heating) to the level needed to make them viable. Large variations in revenue-generation are, however, reported at the sub-sector level too so that further disaggregation of the rate would not solve the issue and would encounter accountability problems in terms of the size, homogeneity and geographical coverage of the sample.
These conclusions should be considered as preliminary. It is suggested to re-examine the adoption of flat-rates in the ICT and EE sectors at a later stage of implementation of ERDF OPs 2014-2020. Such re-examination should consider any changes in EU legislation and market conditions in the MSs which influence the revenues generated by EE investments.
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