

Support to SMEs – Increasing Research and Innovation in SMEs and SME Development

Third Intermediate Report Work Package 2

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

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This report is part of a study carried out by a Team selected by the Evaluation Unit, DG Regional and Urban Policy, European Commission, through a call for tenders by open procedure No 2014CE16BAT002.

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Subcontracting enterprises are: CASE – Center for Social and Economic Research (Poland), INFYDE – Informatión y Desarrollo S.L. (Spain), Visionary Analytics (Lithuania) and WIFO – ÖsterreichischesInstitutfürWirtschaftsforschung (Austria).

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Quotation is authorised as long as the source is acknowledged.

Third Intermediate Report

Volume II

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LIST OF ABBREVIATIONS

ADE Economic Development Agency
BGK Bank Gospodarstwa Krajowego
ERDF European Regional Development Fund

EIB European Investment Bank

EU European Union

EURIBOR Euro Interbank Offer Rate

EUROSTAT Statistical Office of the European Communities

GERD Gross Domestic Expenditure in R&D

ICT Information and Communication Technology

NACE Nomenclature statistique des Activités économiques

dans la Communauté Européenne

NUTS Nomenclature des Units Territoriales Statistiques

OP Operational Programme
R&D Research and Development

SME Small and Medium sized Enterprise

FOREWORD

This is the Third Intermediate Report of the ex-post evaluation of Support to Small and Medium Enterprises (SMEs) – Increasing Research and Innovation in SMEs and SME development. The objective of the evaluation is to assess the effectiveness and the impact of the European Regional Development Fund (ERDF) with regards to support for innovation and the development of SMEs in the European Union over the 2007-2013 programming period.

The report presents the results of Tasks 4, i.e., the three theory-based impact evaluations of selected policy instruments. The objective is to go in-depth into the mechanisms through which a specific policy instrument produces effects on Small-Medium Enterprises (SMEs), by directly asking beneficiary SMEs for the 'perceived effectiveness' of the instrument. SME's opinions on the changes triggered by the policy instrument in their way of doing business and effects generated have been collected through three surveys and results processed by means of Bayesian Networks, in combination with other statistical techniques.

The Third Intermediate Report is organised in two volumes: a main report containing the results of the evaluation of the three policy instruments (Volume I) and the set of Annexes including the questionnaires circulated among beneficiary SMEs, descriptive statistics of responses and results from the econometric analysis for each policy instrument (Volume II).

ANNEX 1. Survey to beneficiary SMEs in Poland: questionnaire and analysis of results

1.1. Questionnaire

QUESTIONNAIRE

The questionnaire is addressed to the enterprises who benefitted from the Technological Credit and for which they received a premium by the Bank Gospodarstwa Krajowego (BGK) since 2009. The survey's main objective is to get information on the types of realised investments and on their effects on the life of beneficiary enterprises during the period 2009-2015.

Questions should be answered by the enterprise **owner or managing director**, or in general **the entrepreneur (whatever his/her job description)** who is responsible for taking managerial, organisational and strategic decisions for the enterprise.

The survey is carried out by CSIL (Centre for Industrial Studies) in collaboration with CASE (Centre for Social and Economic Research) and BGK. It is implemented in the framework of an evaluation study of the publicly-funded initiatives to support the growth and innovation of European Small-Medium enterprises.

The compilation of the questionnaire requires about 10 minutes. Your answers will be treated confidentially, will be statistically processed and results will be presented at aggregate level only in a report for the European Commission due by the end of October 2015.

For any request of clarification you can contact Jan Teresiński (<email address>, <phone number>).

Thanks for your cooperation!

¹ The asterisk '*' indicates the mandatory questions.

Section A: GENERAL INFORMATION

In this section we ask you some general information about your enterprise.

| A1. Name of the enterprise | |
|---|---|
| A2. Position of the respondent | |
| A3. Year of establishment of the enterprise | |
| A4. Age of the entrepreneur today * | |
| A5. Education attainment of the entrepreneur * | □ Primary education degree □ Secondary education degree □ Bachelor's degree or equivalent □ Master degree □ PhD □ Other – please specify: |
| A6. Is your enterprise part of a group? * | Yes, it is the parent enterprise Yes, it is a subsidiary → Go to A6.1 No |
| If A6 = "Yes, it is a subsidiary" A6.1 Where is the parent enterprise located? | □ Same province □ Same region □ Other regions in Poland □ Europe □ Outside Europe |

Section B: ACCESS TO THE BGK TECHNOLOGICAL PREMIUM

In this section we ask you how you got to know the BGK premium associated with the Technological Credit and whether you had previous experience with public support initiatives targeted to enterprises.

| B1. From whom did you first hear about the premium granted by BGK on Technological Credit? * | More than one answer available, maximum three BGK promotional activity From the lending bank, when requesting funds Newsletter/advertising materials from the lending bank Sectorial business associations Business consultant Word of mouth from other enterprises Research on the Internet |
|--|---|
| | □ Seminars/public meetings □ Friends □ Other - please specify: |
| B2. Did your enterprise ever benefitted from other public support measures before 2009? * | □No |

Section C: INVESTMENT PROJECT IMPLEMENTED

In this section we aim to collect some information about the investment project for which you have received the Technological Credit and signed an agreement with BGK. In case your enterprise signed more than one agreements with BGK since 2009, please select the types of costs funded by all the agreements.

| C1. What did the technological investment(s) for which you | more than one answer available | | | | | |
|---|--|--|--|--|--|--|
| received BGK technological premium consist of? * | | | | | | |
| premient consist or. | ☐ Purchase or lease of buildings and parts thereof | | | | | |
| | ☐ Construction or expansion of existing buildings | | | | | |
| | ☐ Purchase or lease of machine | , , , | | | | |
| | ☐ Purchase or lease of means of | • | | | | |
| | □ Purchase or lease of informat□ Purchase or lease of patents | | | | | |
| | <u> </u> | insulting services necessary to | | | | |
| | implement the technological ir | , | | | | |
| | □ Other – please specify: | | | | | |
| C2. For how many investment | □ One → Go to C2.1 | | | | | |
| projects did your enterprise | ☐ More than one → Go to C2.2 | | | | | |
| benefitted from BGK technological premium? * | | | | | | |
| If C2. = "One" | □ Yes | | | | | |
| | | vas paid in one tranche at the | | | | |
| C2.1 Have you received any | end of the investment project | · | | | | |
| interim payments by BGK?* | □ I don't know | | | | | |
| If C2. = "More than one" | | which my enterprise benefitted | | | | |
| C2.2. Have you ever received any | from BGK technological premium Yes for some projects for w | oms Inhich my enterprise benefitted | | | | |
| interim payments by BGK?* | from BGK technological premiu | | | | | |
| | □ No, never | 31115 | | | | |
| | □ I don't know | | | | | |
| , | | | | | | |
| C3. Did you start other inve | | ☐ Yes → Go to C3.1 | | | | |
| development since 2009, differer received the BGK technological pre | | □ No | | | | |
| If C3. = "Yes" | | □ Yes | | | | |
| C3.1. Have you received any pub | | □ No | | | | |
| investments (other than BGK techno | ological premium)? | • | | | | |

Section D: INVESTMENT RESULTS

In this section we aim to understand the changes produced by the technological investment in your enterprise and the economic benefits ascribable to that investment.

In case your enterprise benefitted from more than one BGK technological premiums since 2009, please select all the changes generated in your enterprise thanks to all the investment for which you received BGK support.

| D1. Did the implementation of the technological investment project(s) supported by BGK | | | | | | | | |
|---|---|---------------|--|---|---|-----------------|--|--|
| bring about any of the following change | | | | | | | | |
| Select the most relevant change(s) in the following list (at least one) | | | | | | | | |
| D1.1.I have widened the range of offered | products/se | ervices | | | | | | |
| D1.2. I have improved the offered products | | | | | | | | |
| D1.3. I have upgraded the existing product | | | | | cesses | | | |
| D1.4. I am able to sell products/services th | | xist in the r | narket before |) | | | | |
| D1.5. I have started selling in new foreign m | narkets | | | | | | | |
| D1.6. My enterprise reputation improved | | | | | | | | |
| D1.7. I have improved the overall work orgo | | 1 / : - | -: | | \ | | | |
| D1.8. I have reduced the enterprise enviro | | | sions, waste, v | water poliutio | n) | | | |
| D1.9. I have reduced the enterprise energy | | | | o /skills | | | | |
| D1.10. Personnel already working for the er | | gairiea rie | ew knowledg | C/3KIII3 | | | | |
| D1.12. I could maintain he number of empl | | ime o part | time) | | | | | |
| D1.13. Other – please specify: | 0,000 (1011 11 | 1110 0 0011 | | | | <u>-</u> | | |
| | | | | | | <u></u> | | |
| D2. Did your enterprise own any paten | before 20 | 09? * | | | □ Yes | | | |
| □ No | | | | | | | | |
| | D3. Did your enterprise already registered a patent or does it expect to do so in 🗆 Yes | | | | | | | |
| | | | | | | | | |
| the near future as a consequence o | | | | | □ No | len over | | |
| | | | | | | know | | |
| the near future as a consequence o | | | | | □ No | know | | |
| the near future as a consequence o implemented? * D4. Which economic results has your enterprise already achieved thanks | f the tech | nological | investment | project(s) | □ No | know | | |
| the near future as a consequence o implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) | | | | | □ No □ I don't | | | |
| the near future as a consequence o implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * | NOT AT ALL | nological | ENOUGH | project(s) | □ No □ I don't VERY | I don't | | |
| the near future as a consequence o implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1.1 have increased sales | f the tech | nological | investment | project(s) | □ No □ I don't VERY | I don't | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of | NOT AT ALL | nological | ENOUGH | project(s) | □ No □ I don't VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients | NOT AT ALL | LITTLE | ENOUGH | project(s) | ONO | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients | NOT AT ALL | LITTLE | ENOUGH | project(s) | □ No □ I don't VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not | NOT AT ALL | LITTLE | ENOUGH | project(s) | ONO | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | No l don't | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | No l don't | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis D4.7. Other – specify: | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis D4.7. Other – specify: D5. Do you expect that these | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis D4.7. Other – specify: D5. Do you expect that these economic results will overall improve | NOT AT ALL O O O O O O O O O O O O O O O O O O | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis D4.7. Other – specify: D5. Do you expect that these | NOT AT ALL O O O O O O O O O O O O O O O O O O | LITTLE | ENOUGH ENOUGH On the state of | APPRECIABLY | VERY MUCH | I DON'T KNOW | | |
| the near future as a consequence of implemented? * D4. Which economic results has your enterprise already achieved thanks to the technological investment(s) supported by BGK? * D4.1. I have increased sales D4.2. I have increased the number of clients D4.3. I have diversified the type of clients D4.4. I have increased export (if you have never exported, select "Not at all") D4.5. I have decreased total costs D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis D4.7. Other – specify: D5. Do you expect that these economic results will overall improve | NOT AT ALL O O O O O O O O O O O O O O O O O O | LITTLE | ENOUGH ENOUGH On the state of | APPRECIABLY APPRECIABLY the same or some ex | VERY MUCH | I DON'T KNOW | | |

Section E: OPINION ON BGK TECHNOLOGICAL PREMIUM

In this section we ask you some questions to understand how you judge your experience with the Technological Credit and the associated Premium granted by BGK.

| E1. How important was the possibility of benefitting from the BGK aid for the decision of starting the technological investment(s)? * Please select the most relevant option(s) | □ Without BGK aid I would have faced more serious financial difficulties □ Without BGK aid I would have postponed the investment □ Without BGK aid I would have done the a smaller and less ambitious investment □ Without BGK aid I would have not realised the investment □ Other, please specify | | | | |
|---|---|---------------------|-------------|-----------|-------------------|
| E2. Please indicate your satisfaction on the following issues regarding your application to the BGK technological premium?* | NOT SATISFIED AT ALL | POORLY SATISFIED | INDIFFERENT | SATISFIED | VERY SATISFIED |
| E2.1 Simplicity of the application, selection and payment process to obtain the BGK premium | | | | | |
| E2.2. Time required to receive the BGK premium after the investment completion | | | | | |
| E2.3. The types of expenses eligible for BGK premium | | | | | |
| E3. To which extent do you agree with the following statements?* | STRONGLY DISAGREE | DISAGREE | DON'T KNOW | AGREE | STRONGLY AGREE |
| E3.1. I think that the combination between the BGK technological premium and the bank loan is effective to stimulate technological investments of firms | | | | | |
| E3.2. I wanted to apply for BGK technological premium even before, but rules were too complex or strict (if you didn't want to apply earlier, but for other reasons, select "Don't know") | | | | | |
| E3.3. I think that the rules for obtaining the BGK technological premium should be further simplified | | | | | |
| E4. Would you apply again in future for other public initiatives supporting your technological investments? * | □ I think so □ I don't thi □ I don't kn | | | | |

Section F: CHANGES IN YOUR ENTERPRISE LIFE

In this last section we want to understand what further changes, not necessarily economic ones, have been generated on your life and enterprise thanks to the experience with BGK technological premium.

| F1. How did you feel when you knew that your application for technological premium had been accepted by BGK? | | | | | |
|---|----------------------|----------|------------|-------|-------------------|
| F2. To which extent do you agree with the following statements?* IF YOU DON'T NOTICE ANY OF THE FOLLOWING CHANGES IN YOUR WAY OF DOING BUSINESS OR ENTERPRISE LIFE, SELECT "STRONGLY DISAGREE" | STRONGLY DISAGREE | DISAGREE | DON'T KNOW | AGREE | STRONGLY AGREE |
| F2.1. Thanks to BGK technological premium the relationship with my bank has improved | | | | | |
| F2.2. Thanks to BGK technological premium my opinion about public support for enterprises has improved | | | | | |
| F2.3. Thanks to BGK technological premium my opinion about initiatives financed by the European Union for small-medium enterprises has improved | | | | | |
| F2.4. After benefitting from BGK premium, I started to search more frequently news about public initiatives supporting enterprises in Poland | | | | | |
| F2.5. After benefitting from BGK premium, I started to consider new possible investments that I never considered before | | | | | |
| F2.6. After benefitting from BGK premium, I realized that my enterprise has more scope for expansion than I thought | | | | | |
| F2.7. After benefitting from BGK premium, I realised that it would be better to have more skilled employees | | | | | |
| F2.8. After benefitting from BGK premium I realised that it would be better to have more employees speaking foreign languages | | | | | |
| F2.9. After benefitting from BGK premium I realised that it would be better to have more younger employees | | | | | |
| F3. Space for open comments | | | | | |

Section G: ADDITIONAL INFORMATION ABOUT THE ENTERPRISE

This section includes non-mandatory questions asking some additional information about your enterprise. We remind you that your replies will remain confidential.

| G1. Number of Full Time Equivalent Employees | In the year of application for BGK Technological Credit Note: Should you have requested BGK technological CREDIT MORE THAN ONCE, PLEASE ANSWER WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | At the end of 2014 | |
|---|--|---|--|
| | □ 0 - 9 □ 10 - 49 □ 50 – 99 □ 100 – 249 | □ 0 - 9 □ 10 - 49 □ 50 – 99 □ 100 – 249 □ > 249 | |
| G2. Amount of annual turnover (or annual sales), in Zloty | In the year of application for BGK Technological Credit Note: Should you have requested BGK technological CREDIT MORE THAN ONCE, PLEASE ANSWER WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | At the end of 2014 | |
| Less than 4 million | | | |
| Between 4 and 8 million | | | |
| Between 8 million and 20 million | | | |
| Between 20 million and 40 million | | | |
| Between 40 million and 80 million | | | |
| Between 80 million and 200 million | | | |
| More than 200 million | | | |
| G3. Approximate share of exports out of total sales | In the year of application for BGK Technological Credit Note: Should you have requested BGK technological CREDIT MORE THAN ONCE, PLEASE ANSWER WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | At the end of 2014 | |
| Null | | | |
| Less than 10% | | | |
| Between 10% and 30% | | | |
| Between 30% and 50% | | | |
| More than 50% | | | |

1.2. Analysis of the sample representativeness

In this section we carry out a representativeness analysis where the sample of the respondent SMEs is compared with the population of beneficiaries in relation to key variables such as size, sector of activity, geographical location, value of the investment implemented and value of the public support received. This exercise is a pre-condition to perform a correct inference and thus guarantee the external validity of our results. The objective of the survey was to gather a wide-ranging set of data (see next section) on 586 SMEs which benefited from BGK Technological Premium during the period 2009-2013. The survey was carried out between August 4th- September 11th 2015. A total of 200 SMEs filled out the questionnaire, which represents a 34% response rate.

60% 48.3% 48.5% 50% 36.9% 37% 40% 30% Population Sample 20% 14.8% 14.5% 10% 0% Medium Micro Small enterprises enterprises enterprises

Figure 1. Share of respondents by size

Source: Csil

Figure 1 illustrates the percentage of SMEs in the targeted population and in the sample split by firm size. The sample represents an overall unbiased approximation of the population, where almost 50% of respondents are medium sized enterprises.

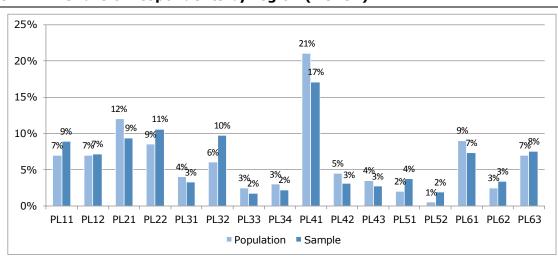


Figure 2. Share of respondents by region (NUTS2)

Source: Csil Note: Łódzkie (PL11); Mazowieckie (PL12); Małopolskie (PL21); Śląskie (PL22); Lubelskie (PL31); Podkarpackie (PL32); Świętokrzyskie (PL33); Podlaskie (PL34); Wielkopolskie (PL41); Zachodniopomorskie (PL42); Lubuskie(PL43); Dolnośląskie (PL51); Opolskie (PL52); Kujawsko-pomorskie (PL61); Warmińsko-mazurskie (PL62); Pomorskie (PL63).

The above graph shows the spatial distribution of SMEs throughout Poland both in the sample and in the whole population. On average the difference among sample and population levels ranges from 1.5% to 2%. Although some higher discrepancies are observable in the regions PL21, PL32, PL41, overall the sample well represents the population; thus a potential distortion stemming from an over- or under- represented area is avoided.

25% 22% 22% 20% 16% 16% 16% 16% 15% 14% 12% 10% 9% 8% 8% 8% 6% 5% 5% 5% 0% C.23 -C.17 and C18 -C.24 and C.25 -C.22 -C.28 -C.26 and C.27 -C.20 and C.21 -Other Other sectors Manufacture of Manufacture of Manufacture of Manufacture of Paper and Manufacture of Manufacturing of manufacturing basic metals and rubber and plastic machinery and other nonprinting computer, chemicals and sectors fabricated metal products equipment n.e.c. metallic mineral manufacturing electronic and pharmaceutical products, except products industry optical products products machinery and equipment equipment ■ Population ■ Sample

Figure 3. Share of respondents by activity sector (NACE)

Source: Csil

The distribution of SMEs broken-down by sector of activity is reported in Figure 3. Some difference between the sample and the population can be observed in the manufacture of basic metals sector and in the other manufacturing sectors. However, the sample and the population seems to be very similar meaning that the sample provides us all the necessary information for the statistical analysis.

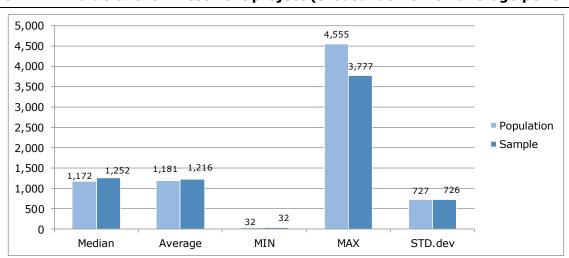
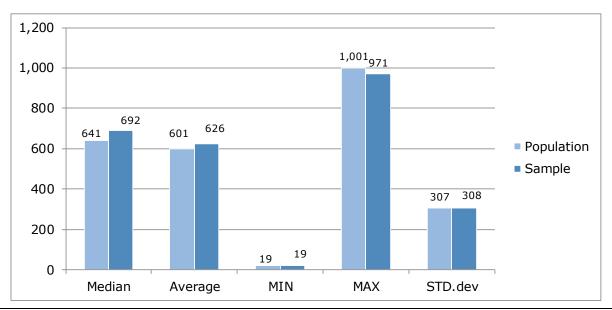


Figure 4. Value of the investment project (thousands EUR on average per SME)

Source: Csil

Figure 5. Value of the public support (thousands EUR on average per SME)



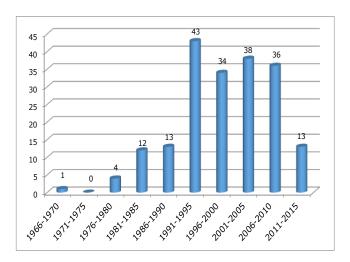
Source: Csil

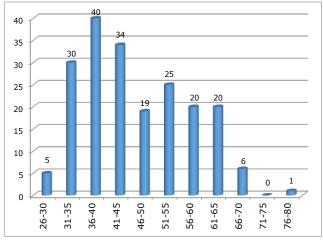
Figure 4 and Figure 5 compare, respectively, the distribution of the value of the investment project and the value of the public support emerging from the sample and the population. For both the variables and each indicator the sample makes a good approximation of the population.

1.3. Descriptive statistics of the questionnaire responses

Section A: Data on the enterprise and the enterpreneur

Figure 6. A3 - Year of establishment Figure 7. A4 - Age of the enterpreneur in 2015



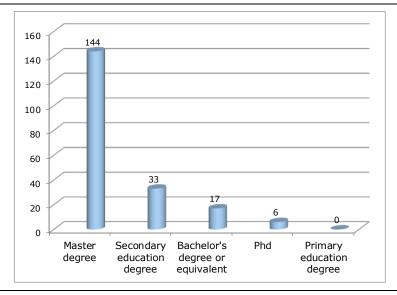


Source: Csil Source: Csil

Note: 194 respondents; 6 missing. Note: 200 respondents, 0 missing.

Analysing the year of establishment of the enterprises which participated in the survey, we record that most of them were founded after the 1990. The second graph of this section shows that currently the majority of entrepreneurs are relatively young; 52% are aged between 30-45 years, while 64% between 26-50.

Figure 8. A5 - Educational background



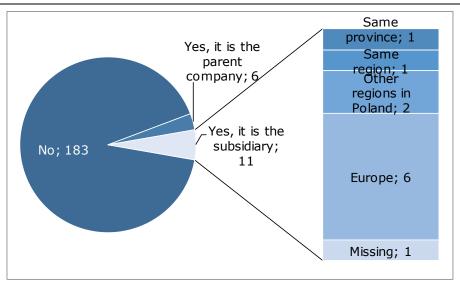
Source: Csil

Note: 200 respondents, 0 missing.

The average education level of the entrepreneurs is relatively high: 72% has got a master degree.

Furthermore, Figure 9 shows that enterprises are usually not part of an industrial group.

Figure 9. A6 - Is the enterprise part of a group? If yes, where is the parent enterprise located?



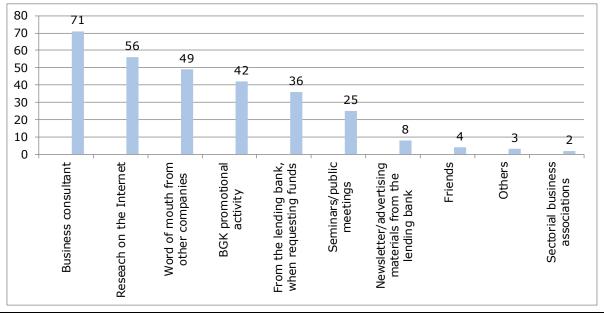
Source: Csil

Note: 199 respondents, 1 missing.

Section B: Data on access to public financement

In this section we examine from which source the beneficiaries got to know about the policy instruments.

Figure 10. B1 - From whom did you first hear about BGK technological premium?

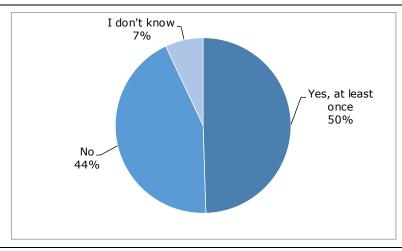


Source: Csil

Note: 200 respondents, 0 missing. Enterprises could select up to the three options.

The main sources used by respondents to get information about BGK Technological Premium are more often represented by: business consultants (71 respondents selected this option) and research on the Internet (56 respondents). The promotional activities and the other sources seems not to be as effective as the former. Additionally, it is possible to notice that half of the enterprises benefited from other public support measures before 2009, which means that many of them are not fully new to the system of public support for enterprises.

Figure 11. B2 - Did your enterprise ever benefited from other public support measures before 2009?



Source: Csil

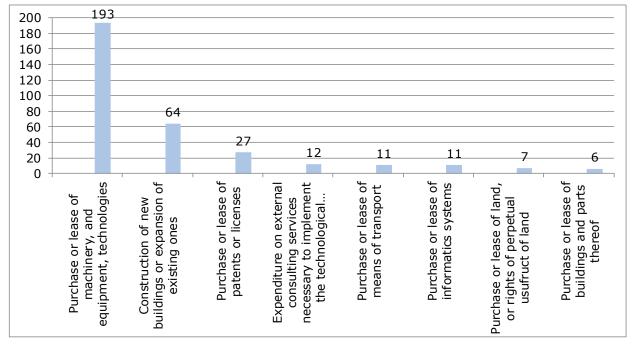
Note: 200 respondents, 0 missing.

Section C: Implementation of the investment project

Questions included in this section allow to draw an overview about what the enterprise did with BGK premium and what kind of payment they received.

Question C1 is about the main reason for applying to BGK technological premium. It is evident that the absolute majority is using the aid to purchase machineries. This option was chosen by 97% of the respondents.

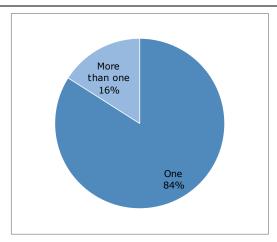
Figure 12. C1 - What did the technological investments for which you received BGK Technological Premium consist of?



Source: Csil

Note: 200 respondents. Enterprises could select more than one option.

Figure 13. C2 - For how many investment projects did your enterprise benefitted from BGK Technological Premium?

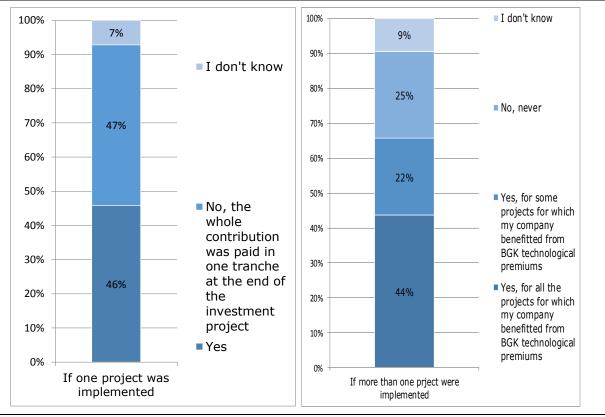


Source. CSIL

Note: 200 respondents.

The majority of SMEs benefited from the BGK technological premium to carry out one project only, as it is evident from responses to question C2. In contrast, 16% of them signed more than one agreement with BGK to co-fund different investment projects.

Figure 14. C2.1 - Have you received any interim payments from BGK?



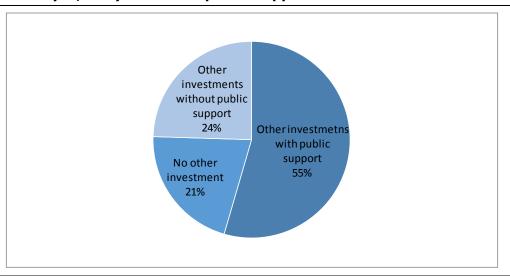
Source: Csil

Note: 200 respondents.

Analysing the graph C3 we can see that the payment of BGK premium was made in tranches for half of the firms, which carried out one investment project only. Within the subgroup of SMEs which carried out more than a project, 22% of enterprises received the interim payment for all the projects.

As shown by Figure 15, the majority of SMEs (79%) started other investment projects from 2009 onwards, two third of which were granted other forms of public support different from the technological credit.

Figure 15. C3 - Did you start other investments for your enterprise development since 2009, different from those for which you received the BGK technological premium? If yes, did you receive public support?



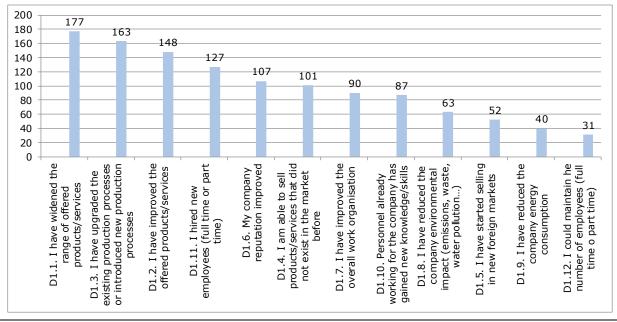
Source: Csil

Note: 200 respondents.

Section D: Investment results

This section of the survey explores the effects of the investments achieved by the enterprises which benefited from the BGK premium.

Figure 16. D1 - Did the implementation of the technological investment projects supported by BGK bring about any of the following changes to your enterprise?



Source: Csil

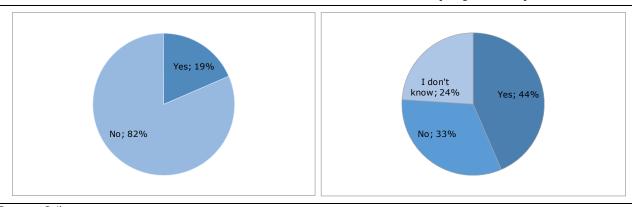
Note: 200 respondents. Enterprises could select more than one answer.

Answers to question D1 shows that the implementation of the technological projects supported by BGK brought different effects, especially in terms of products/services offered and operation improvement. More in details, the main advantages perceived by the many respondents (around 50%) are related to the widening and improvement of the quality of products/services offered.

Figure 17. D2 - Did your enterprise Figure 18. D3 - Did your enterprise own any patent before 2009?

already registered a patent or does it expect to do so in the near future as a consequence of the technological

investment projects implemented?

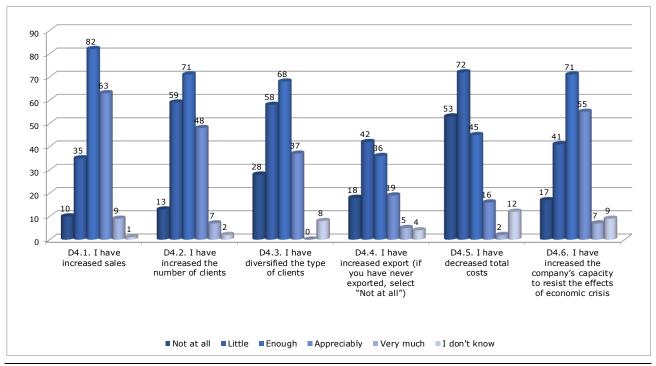


Source: Csil.

Note: 200 respondents.

When comparing the share of SMEs owning a patent before 2009 and the share of SMEs which has registered a patent after the investment project, it can be noted a significant increase. If only 19% of SME already had a patent before 2009, they are 44% today.

Figure 19. D4 - Which economic results has your enterprise already achieved thanks to the technological investments supported by BGK?

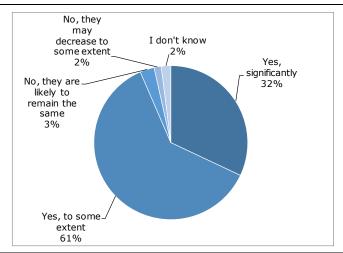


Source: Csil

Note: The number of respondents is 200, with the exception of the graph on question D4.4, which is referred to exporting enterprises only. They are 124.

Figure 19 shows the SMEs' level of approval in relation to six different types of possible economic results. Overall, respondents are enough satisfied with the benefits brought by the implementation of the projects. If we consider the categories "enough", "appreciably" and "very much" we notice that they represent on average the 60% of the answers for economic results defined in terms of increase in sales, number of client and enterprise's capacity to resist the crisis.

Figure 20. D5 - Do you expect that these economic results will overall improve in the next 3-5 years?



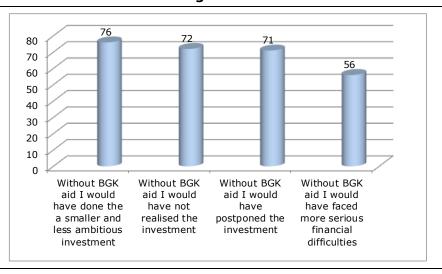
Source: Csil

Note: 200 respondents.

Benefits related to the project implementation are expected to improve in the next 3-5 years for almost all the beneficiaries. 93% of SME is in fact convinced that economic results will overall improve at least to some extent.

Section E: Opinion on BGK technological premium

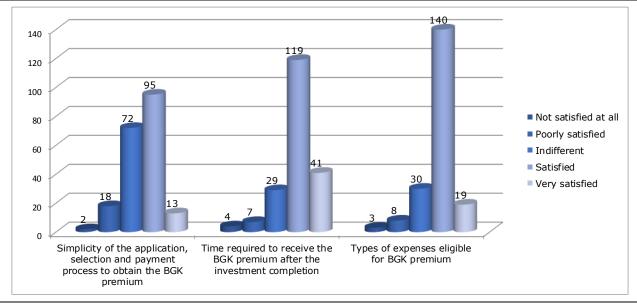
Figure 21. E1 - How important was the possibility of benefitting from the BGK aid for the decision to start the technological investments?



Source: Csil

Note: 200 respondents. Enterprises could select more than one option.

Figure 22. E2 - Please indicate your satisfaction on the issues regarding your application to the BGK technological premium.



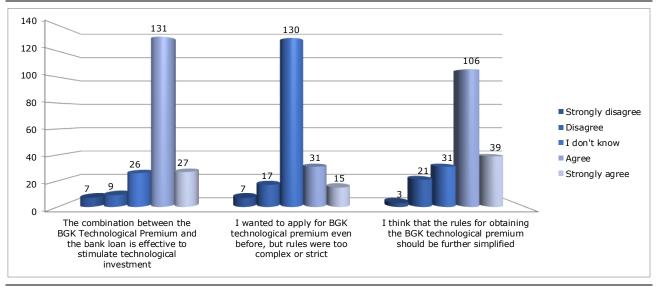
Source: Csil

Note: 200 respondents.

BGK premium helped many of enterprises start new investments and avoid to postpone them. In relative terms, it seems that BGK premium was generally less useful to overcome financial difficulties. Actually, 56 SMEs out of 200 maintain that without BGK aid would have faced more financial difficulties.

The respondents have shown high satisfaction for the characteristics of the policy instrument. More in particular, more than the 60% are satisfied about the time required to receive the BGK Premium and the types of expenses eligible for it.

Figure 23. E3 - To which extent do you agree with the following statements?

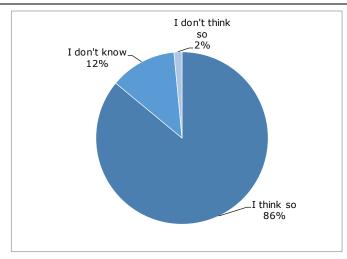


Source: Csil

Note: 200 respondents.

65% of respondents consider the solution offered by the policy instruments (technological premium + bank loan) very effective to stimulate technological investments. Moreover, even if the access to BGK premium is considered easy and not too complex, the majority of respondents is convinced that further simplifications need to be introduced. However the majority of SME (86%) is willing would like to apply again in the future to similar public support initiatives (see Figure 24).

Figure 24. E4 - Would you apply again in future for other public initiatives supporting your technological investments?



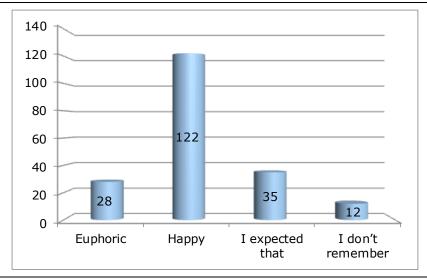
Source: Csil.

Note: 200 respondents.

Section F: Changes in enterprise life

In section D we analysed the types of effects of BGK premium in terms of behavioural changes triggered by the policy instrument.

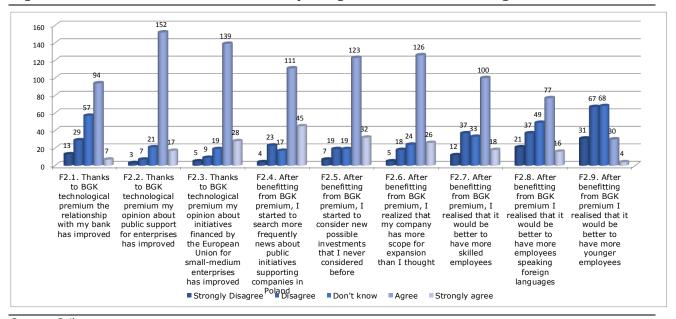
Figure 25. F1 - How did you feel when you knew that your application for technological premium had been accepted?



Source: Csil

Note: 197 respondents.

Figure 26. F2 - To which extent do you agree with the following statements?



Source: Csil

Note: 200 respondents.

The first graph shows that respondents reacted positively when they received the support even if some of them expected it.

In question F2, respondents are asked to rate their agreement to some sentences regarding the impact of BGK premium on the firm in general. From the graph it emerges that the advantages and features of BGK premium tools strongly contributed to improve the entrepreneurs' opinion about public support for enterprises (85%) and, more in particular, initiatives financed by EU for SMEs (84%). Moreover, 3 respondents out of 4 think that BGK premium represented an important stimulus for enterprises to consider expansion actions (76%) and to start new investments (77.5%). Among all the statements considered, only the possibility to hire more younger employees does not seem to be perceived as a positive consequence of the BGK premium by respondents.

Section G: Additional information

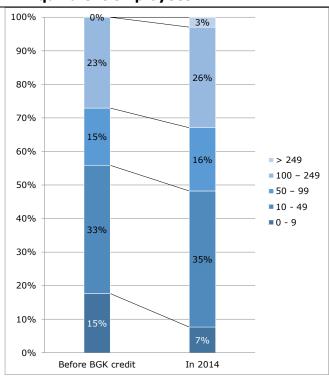
Answers to section G of the questionnaire allow us to compare employment, turnover and exports before and after the implementation of the project supported by BGK.

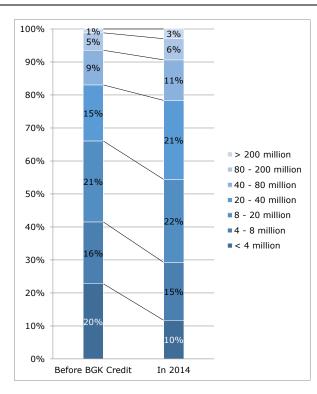
We can observe a decrease in the number of enterprises hiring from 0 to 9 employees (-53%), in favour of larger firms, for instance the ones hiring from 10 to 49 employees.

Graph shows a clear increase in the enterprises' turnover, meaning an expansion in the business of considered enterprises.

Moreover, Figure 29 gives evidence of the positive change on exports level, with an increased share of enterprises with an export/sales ratio above 10%.

Figure 27. G1 - Number of Full Time Figure 28. G2 - Amount of turnover Equivalent employees

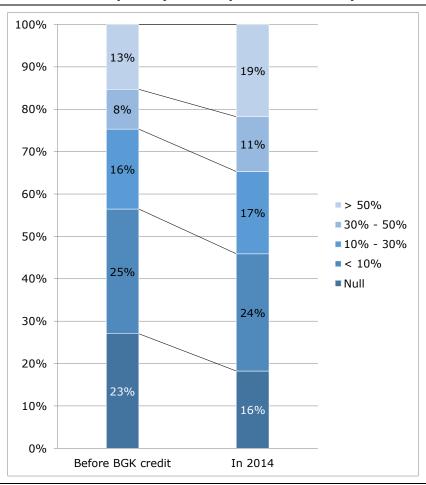




Source: Csil

Note: 170 respondts.

Figure 29. G3 - Share of exports (with respect to turnover)



Source: Csil

Note: 170 respondents.

1.4. Principal Component Analysis

The principal component analysis (PCA) is a multivariate technique that analyses a database in which observations are described by several inter-correlated quantitative variables. Its goal is to extract the important information from the data in order to represent them as a set of new orthogonal variables, called principal components.

After the number of components has been determined, and in order to facilitate the interpretation, the analysis often involves a rotation of the components that were retained. Two main types of rotation are used: orthogonal and oblique. Varimax and Promax rotations belong to orthogonal and oblique methods respectively and they are the two most used rotations.

In our case, two PCAs were performed on the variables listed in the list 1 and the list 2 separately. The results are shown in Table XX (Varimax rotation) and in Table XX (Promax rotation). Afterwards, the principal components obtained, the previous variables they summarize and the name of these new orthogonal variables are presented.

List 1: Type of change

D1.1 New activity; D1.2 Widened products and services; D1.3 Improved products and services; D1.4 Productivity improvement; D1.5 Efficiency improvement; D1.6 New products and Services; D1.7 New sales channels; D1.8 Company more popular; D1.9 Improved spaces; D1.10 Nicer working area; D.12 Improved work organization; D1.13 Improved safety; D.14 Compliance with regulations; D1.15 Environmental impact; D1.16 Energy Consumption; D1.17 Improved employed skills; D1.18 Hiring new employees; D1.19 Maintaining same employees; D1.20 Reduced employees.

List 2: Opinion on the application process

E2.1 Support from the bank; E2.2 Support for the accountant/consultant; E2.3 Support from Puglia Sviluppo; E2.4 Simplicity of documents; E2.5 Time required to get endorsement; E2.6 Simplicity of the reporting process; E2.7 Time required for the documents.

Table 1. Rotated components for list 1 (Varimax rotation)

| Variable | Comp1 | Comp2 | Comp3 | Comp4 | Comp5 | Comp6 | Unexplained |
|--------------|--------|--------|--------|---------|---------|--------|-------------|
| D1_1_New_a~y | | | | -0.6374 | | | .3919 |
| D1_2_Wid_p~v | | 0.4242 | | | | | .5192 |
| D1_3_Imp_p~v | | | | 0.3683 | | | .5997 |
| D1_4_Produ∼p | | | | 0.3362 | 0.3922 | | . 4447 |
| D1_5_Effic~r | | | | | | | .5037 |
| D1_6_Selli~s | | 0.4862 | | | | | .4384 |
| D1_7_New_s~s | | 0.4418 | | | | | .5232 |
| D1_8_More_~y | | 0.4577 | | | | | .4766 |
| D1_9_Wid_I~s | | | 0.5415 | | | | .402 |
| D1_10_Nice~e | | | 0.5257 | | | | .4087 |
| D1_11_Fast~b | | | | | | | .6987 |
| D1_12_Imp_~n | | | 0.3178 | | | | .5342 |
| D1_13_Imp_~y | 0.3540 | | | | | | .414 |
| D1_14_Comp~t | 0.3898 | | | | | | .5095 |
| D1_15_Envi~t | 0.5555 | | | | | | .4107 |
| D1_16_Ener~s | 0.4938 | | | | | | . 4902 |
| D1_17_Empl~s | | | | | | 0.4056 | .4888 |
| D1_18_Hiri∼s | | | | | 0.5136 | | .4061 |
| D1_19_Same~s | | | | | -0.5752 | | .4203 |
| D1_20_Redu~s | | | | | | 0.7558 | .3565 |

Source: Csil

 Table 2. Rotated components for list 1 (Promax rotation)

| Variable | Comp1 | Comp2 | Comp3 | Comp4 | Comp5 | Comp6 | Unexplained |
|--------------|--------|--------|--------|---------|---------|--------|-------------|
| D1_1_New_a~y | | | | -0.6582 | | | .3919 |
| D1_2_Wid_p~v | | 0.4197 | | | | | .5192 |
| D1_3_Imp_p~v | | | | 0.3689 | | | .5997 |
| D1_4_Produ~p | | | | 0.3073 | 0.3687 | | .4447 |
| D1_5_Effic~r | | | | | | | .5037 |
| D1_6_Selli~s | | 0.5154 | | | | | .4384 |
| D1_7_New_s~s | | 0.4502 | | | | | .5232 |
| D1_8_More_~y | | 0.4607 | | | | | .4766 |
| D1_9_Wid_I~s | | | 0.5454 | | | | . 402 |
| D1_10_Nice~e | | | 0.5266 | | | | .4087 |
| D1_11_Fast~b | | | | | | | .6987 |
| D1_12_Imp_~n | | | 0.3271 | | | | .5342 |
| D1_13_Imp_~y | 0.3393 | | | | | | .414 |
| D1_14_Comp~t | 0.3888 | | | | | | .5095 |
| D1_15_Envi~t | 0.5844 | | | | | | .4107 |
| D1_16_Ener~s | 0.5212 | | | | | | .4902 |
| D1_17_Empl~s | | | | | | 0.3892 | .4888 |
| D1_18_Hiri∼s | | | | | 0.5274 | | .4061 |
| D1_19_Same~s | | | | | -0.5986 | | .4203 |
| D1_20_Redu~s | | | | | | 0.7808 | .3565 |

Source: Csil

Table 3. List 1: PCA results

| Component | Variables | |
|-------------|--------------------------|--|
| Component 1 | D1.13;D1.14; D1.15;D1.16 | |
| Component 2 | D1.2;D1.6;D1.7;D1.8 | |
| Component 3 | D1.9;D1.10;D1.12 | |
| Component 4 | D1.1;D1.3 | |
| Component 5 | D1.4; D1.18;D1.19 | |
| Component 6 | D1.17; D1.20 | |

Table 4. Rotated components for list 2 (Varimax rotation)

| Variable | Comp1 | Comp2 | Unexplained |
|--|--------------------------------------|----------------------------|--|
| E2_1_Bank_~t E2_2_Consu~t E2_3_Pugli~t E2_4_Simpl~p E2_5_Time_~p E2_6_Simpl~s E2_7_Time_~v | 0.4670 0.4756 0.4810 0.4826 | 0.5161 0.7949 0.3058 | .5293 .2631 .4274 .2571 .2382 .1877 |

Source: Csil

Table 5. Rotated components for list 2 (Promax rotation)

| Variable | Comp1 | Comp2 | Unexplained |
|--|--------------------------------------|------------------|---|
| E2_1_Bank_~t E2_2_Consu~t E2_3_Pugli~t E2_4_Simpl~p E2_5_Time_~p E2_6_Simpl~s E2_7_Time_~v | 0.4704 0.4796 0.4829 0.4860 | 0.5153 0.7987 | .5293 .2631 .4274 .2571 .2382 .1877 .2067 |

Table 6. List 2: PCA results

| Component | Variables | |
|-------------|------------------------|--|
| Component 1 | E2.1;E2.2; E2.3 | |
| Component 2 | E2.4; E2.5; E2.6; E2.7 | |

1.5. Results of econometric regressions

Table 7. Descriptive Statistics PL

| Table 7. Descriptive Stat | | | | | | |
|--|--|------------|----------------|----------------|--------|--------|
| VARIABLES | Definition | N | mean | sd | min | max |
| Type of change variables | | 200 | 0.005 | 0.000 | • | _ |
| D1.1 Widened prod and serv | See questionnaire | 200 | 0.885 | 0.320 | 0 | 1 |
| D1.2 Improved prod and serv | See questionnaire | 200 | 0.740 | 0.440 | 0 | 1 |
| D1.3 Upgraded processes | See questionnaire | 200 | 0.815 | 0.389 | 0 | 1 |
| D1.4 New prod and serv | See questionnaire | 200 | 0.505 | 0.501 | 0 | 1 |
| D1.5 New foreign markets | See questionnaire | 200 | 0.260 | 0.440 | 0 | 1 |
| D1.6 Company reputation | See questionnaire | 200 | 0.535 | 0.500 | 0 | 1 |
| D1.7 Work organisation | See questionnaire | 200 | 0.450 | 0.499 | 0 | 1 |
| D1.8 Environmental impact | See questionnaire | 200 | 0.315 | 0.466 | 0 | 1 |
| D1.9 Energy consumption | See questionnaire | 200 | 0.200 | 0.401 | 0 | 1 |
| D1.10 know_skils_increase | See questionnaire | 200 | 0.435 | 0.497 | 0 | 1 |
| D1.11 New employees | See questionnaire | 200 | 0.635 | 0.483 | 0 | 1 |
| D1.12 Maintain same employees | See questionnaire | 200 | 0.155 | 0.363 | 0 | 1 |
| Economic Results | 6 | 200 | 2.445 | 0.053 | 0 | _ |
| D4.1 Increase Sales | See questionnaire | 200 | 3.115 | 0.952 | 0 | 5 |
| D4.4 Increase Exports | See questionnaire | 200 | 2.175 | 1.201 | 0 | 5 |
| D4.5 Decrease Costs | See questionnaire | 200 | 2.030 | 1.070 | 0 | 5 |
| D5 Expected Economic Results | See questionnaire | 200 | 4.155 | 0.857 | 1 | 5 |
| Behavioural Changes | | 200 | 2.065 | 0.670 | _ | _ |
| F2.2 Opinion Public Support | See questionnaire | 200 | 3.865 | 0.670 | 1 | 5 |
| F2.3 Opinion EU Support | See questionnaire | 200 | 3.880 | 0.793 | 1 | 5 |
| F2.4 News Public Initiatives | See questionnaire | 200 | 4.180 | 1.120 | 1 | 5 |
| F2.5 New Investment Possibilities | See questionnaire | 200 | 4.225 | 1.167 | 1 | 5 |
| F2 Expansion Possibilities | See questionnaire | 200 | 0.000 | 1.672 | -5.17 | 2.42 |
| F2 Upgrading Employees | See questionnaire | 200 | 0.000 | 1.056 | -3.36 | 2.67 |
| Opinion Application Issues | | | | | | _ |
| E2.1 Simplicity | See questionnaire | 200 | 3.495 | 0.789 | 1 | 5 |
| E2.2 Time Required | See questionnaire | 200 | 3.930 | 0.818 | 1 | 5 |
| E2.3 Eligible Expenses | See questionnaire | 200 | 3.820 | 0.714 | 1 | 5 5 |
| E3.1 Combination Premium-Loan | See questionnaire | 200 | 3.810 | 0.853 | 1 | |
| E4 Future Application | See questionnaire | 200 | 1.110 | 0.359 | 0 | 2 |
| Project Characteristics | | 200 | 4 470 | 0.445 | _ | _ |
| Agreements signed | Number of agreements | 200 | 1.170 | 0.415 | 1 | 3 |
| 00.0 | signed by each enterprise | 200 | 12.27 | 0.000 | 0.057 | 1407 |
| OP Support (log) | Logarithmic value of total | 200 | 13.27 | 0.820 | 9.857 | 14.87 |
| Duningt Commistion | OP support received | 200 | 2012 | | 2011 | 2015 |
| Project Completion year | Year of project completion | 200 | 2013 | 1.111 | 2011 | 2015 |
| Beneficiary Characteristics | C | 200 | 2.615 | 0.704 | 2 | _ |
| A5 Entrepreneur education | See questionnaire | 200 | 3.615 | 0.794 | 2 | 5 |
| A6.1 Subsidiary in a group | See questionnaire | 200 | 0.055 | 0.228 | 0 | 1 |
| NACE 2digits | NACE sectors at 2 digit | 200 | 4.505 | 2.945 | 1 | 9 |
| NACE To the old one interests. | level | 100 | 1 570 | 0.505 | 4 | 2 |
| NACE Technology intensity | Technological intensity | 199 | 1.578 | 0.505 | 1 | 3 |
| Cima maiawa | class | 200 | 0.145 | 0.252 | 0 | 1 |
| Size micro | Dummy for enterprises | 200 | 0.145 | 0.353 | 0 | 1 |
| Cizo amall | with 0-9 employees | 200 | 0.270 | 0.494 | 0 | 1 |
| Size small | Dummy for enterprises with 10-49 employees | 200 | 0.370 | 0.484 | 0 | 1 |
| NUTS1 | with 10-49 employees | 200 | 2 410 | 1 622 | 1 | c |
| | | 200 200 | 3.410 0.210 | 1.633 | 1 0 | 6 1 |
| Dummy NUTS2 PL41 | Soo quostionnairo | | 0.210 | 0.408 0.611 | 0 | 2 |
| B2 before 09 public support C3 Other Investment support | See questionnaire | 200 | | | | 2 |
| | See questionnaire | 198 | 1.035 | 0.671 | 0 | 2 5 |
| Initial export share Initial turnover | See questionnaire (G3) | 170 171 | 2.565 | 1.380 | 1 1 | 5 7 |
| Initial turnover | See questionnaire (G2) | 171 | 2.942 | 1.537 | 1 | / |

Source: Csil; Note: The Table shows summary statistics of the variables used in the Polish case study. The variables `F2. Expansion Possibilities' and `F2 Upgrading Employees' are expressed in principal components.

Table 8. Ordered Logit Estimates: Economic Performance

| Dependent Variable is | D4.1 Incre | ase Sales | D4.4 Inc Expo | | D4.5 Deci Cost | | D4.5 Ex | cpected Results |
|--|---------------|------------------|------------------|------------------|-------------------|------------------|-----------------|--------------------|
| Variables | Coefficient | Std Err | Coefficien t | Std Err | Coefficient | Std Err | Coefficie nt | Std Err |
| Type of change variable | es | | | | | | | |
| D1.1 Widened prod and serv | -0.32 | (0.72) | 0.75 | (0.84) | -0.96** | (0.47) | -0.29 | (0.74) |
| D1.2 Improved prod and serv | 0.04 | (0.44) | 0.72 | (0.49) | 1.01*** | (0.33) | -0.15 | (0.50) |
| D1.3 Upgraded processes | 0.13 | (0.46) | -0.60 | (0.63) | 0.30 | (0.44) | -0.05 | (0.48) |
| D1.4 New prod and serv | -0.07 | (0.38) | 0.10 | (0.33) | -0.12 | (0.32) | 0.66 | (0.45) |
| D1.5 New foreign markets | | (0.55) | 2.10*** | (0.41) | -0.20 | (0.41) | 0.46 | (0.47) |
| D1.6 Company reputation | | (0.44) | -0.18 | (0.47) | 0.23 | (0.38) | -0.61 | (0.51) |
| D1.7 Work organisation | 0.67 | (0.48) | 0.27 | (0.44) | 0.78** | (0.37) | -0.49 | (0.47) |
| D1.8 Environmental | -0.36 | (0.48) | 0.19 | (0.38) | 0.60 | (0.38) | -0.14 | (0.46) |
| impact | 0.20 | (0.46) | 0.49 | (0.26) | 0.74* | (0.40) | 0.02 | (0 E1) |
| D1.9 Energy consumption | | (0.46) | 0.48 -0.38 | (0.36) (0.37) | -0.20 | (0.40) | 0.03 0.15 | (0.51) |
| D1.10 know_skils_increas | | (0.39) | | , | | (0.32) | | (0.50) |
| D1.11 New employees D1.12 Maintain same | 0.35 -0.77 | (0.38) (0.60) | -0.02 0.16 | (0.45) (0.47) | -0.80** -0.24 | (0.35) (0.47) | 0.59 0.84 | (0.49) (0.74) |
| employees | | | | | | | | |
| Project Characteristics | | | | | | | | |
| Agreements signed | 0.09 | (0.47) | -0.31 | (0.51) | -0.19 | (0.49) | 0.11 | (0.58) |
| OP Support | 0.41* | (0.24) | 0.16 | (0.29) | 0.14 | (0.21) | 0.25 | (0.27) |
| Project Completion | -0.49** | (0.20) | -0.25* | (0.15) | -0.01 | (0.13) | 0.91*** | (0.28) |
| year | | | | | | | | |
| Beneficiary Characteris | tics | | | | | | | |
| Initial export share | 0.00 | (0.17) | 0.67*** | (0.17) | | | 0.03 | (0.15) |
| Initial turnover | 0.03 | (0.14) | 0.16 | (0.15) | | | -0.17 | (0.19) |
| A5 Entrepreneur education | 0.07 | (0.22) | -0.33 | (0.21) | -0.17 | (0.19) | -0.32 | (0.26) |
| A6.1 Subsidiary in a group | 0.48 | (0.78) | -1.28 | (0.98) | -0.80 | (0.93) | -1.20* | (0.63) |
| NACE 2digits | -0.04 | (0.06) | -0.04 | (0.07) | -0.08 | (0.06) | -0.08 | (0.08) |
| NACE Technology intensity | -0.11 | (0.39) | 0.41 | (0.38) | -0.60* | (0.35) | 0.14 | (0.46) |
| Size micro | 0.20 | (0.58) | 0.46 | (0.64) | 0.36 | (0.43) | 0.57 | (0.72) |
| Size small | 0.61 | (0.41) | 0.15 | (0.38) | 0.08 | (0.35) | 0.62 | (0.44) |
| NUTS1 | 0.04 | (0.10) | -0.02 | (0.11) | 0.08 | (0.09) | 0.01 | (0.11) |
| Dummy NUTS2 PL41 | -0.42 | (0.53) | -0.55 | (0.42) | 0.29 | (0.40) | -0.58 | (0.53) |
| B2 Before 09 public | 0.16 | (0.30) | 0.40 | (0.30) | -0.04 | (0.26) | -0.33 | (0.30) |
| support | 0.10 | (0.50) | 0.40 | (0.50) | 0.04 | (0.20) | 0.55 | (0.50) |
| C3 Other Investment | 0.71*** | (0.24) | 0.05 | (0.30) | 0.29 | (0.20) | -0.74*** | (0.29) |
| support | 0.85** | (0.43) | 0.88** | (0.43) | 0.82** | (0.41) | 0.80** | (0.40) |
| $	au_1$ | 1.48*** | • • | 1.63*** | (0.43) (0.52) | 1.54*** | (0.41) (0.61) | 1.25** | (0.40) (0.61) |
| $	au_2$ | 1.48*** | (0.44) (0.45) | 2.46*** | | 1.99*** | | | |
| $	au_3$ | | (0.45) | | (0.52) | | (0.48) | 1.87*** | (0.51) |
| $	au_4$ | 2.41*** | (0.46) | 3.29*** | (0.53) | 2.69*** | (0.47) | 2.19*** | (0.45) |
| $	au_5$ | 2.83*** | (0.52) | 3.65*** | (0.75) | 3.05*** | (0.72) | 2.87*** | (0.69) |
| Observations | 170 | | 170 | | 198 | | 170 | |
| Log Likelihood | -193.2 | | -200.8 | | -264.6 | | -113.9 | |
| McFadden's R2 | 0.136 | | 0.205 | | 0.086 | | 0.185 | |
| Likelihood ratio test | 82.93 | | 140.8 | | 69.00 | | 49.72 | |

Note: Table shows the determinants of the economic performance of interviewed Polish firms. Robust standard errors are reported in parentheses*** , ** , * denote significance at the 1% , 5% 10%.

Table 9. Ordered Logit Estimates: Behavioural Change

| Dependent Variable is | F2.2 Opinion Suppor | | F2.4 News Initiati | | F2.5 New Inv Possibili | |
|------------------------------------|------------------------|------------|-----------------------|---------|---------------------------|---------|
| Variables | Coefficient | Std Err | Coefficient | Std Err | Coefficient | Std Err |
| Type of change variables | | | | | | |
| D1.1 Widened prod and serv | 0.12 | (0.65) | -2.85 | (1.84) | 0.83 | (0.53) |
| D1.2 Improved prod and serv | -0.93 | (0.80) | 0.36 | (0.52) | -0.23 | (0.60) |
| D1.3 Upgraded processes | -0.24 | (0.57) | 0.23 | (0.62) | 0.40 | (0.57) |
| D1.4 New prod and serv | 0.15 | (0.51) | 0.17 | (0.49) | -0.21 | (0.43) |
| D1.5 New foreign markets | 0.20 | (0.85) | 0.12 | (0.51) | 0.09 | (0.46) |
| D1.6 Company reputation | -0.99 | (0.71) | -0.61 | (0.47) | -0.52 | (0.52) |
| D1.7 Work organisation | 0.54 | (0.70) | 0.33 | (0.41) | -0.25 | (0.49) |
| D1.8 Environmental impact | 0.30 | (0.83) | -0.45 | (0.43) | 1.09 | (0.98) |
| D1.9 Energy consumption | 1.18 | (0.99) | -0.24 | (0.43) | -0.22 | (0.47) |
| D1.10 know_skils_increase | 0.18 | (0.46) | 0.05 | (0.43) | 1.02** | (0.42) |
| D1.11 New employees | -0.30 | (0.57) | 0.29 | (0.53) | 0.21 | (0.50) |
| D1.12 Maintain same employees | 0.37 | (0.76) | 0.15 | (0.49) | 0.98 | (0.61) |
| Economic Results | | | | | | |
| D4.1 Increase Sales | 0.41 | (0.35) | 0.32 | (0.24) | -0.39 | (0.21) |
| D4.4 Increase Exports | 0.45 | (0.28) | 0.04 | (0.24) | 0.22 | (0.19) |
| D4.5 Decrease Costs | 0.54 | (0.36) | 0.24 | (0.35) | 0.18 | (0.35) |
| Other Behavioural Changes | | | | | | |
| F2.3 Opinion EU Support | 3.56*** | (0.61) | 0.32 | (0.35) | 0.10 | (0.40) |
| F2 Expansion Possibilities | 0.48*** | (0.11) | | | | |
| F2 Upgrading Employees | 0.32 | (0.21) | 2.07*** | (0.27) | 1.57*** | (0.23) |
| Opinion Application Issues | | | | | | |
| E2.1 Simplicity | 0.51 | (0.36) | 0.94*** | (0.31) | 0.08 | (0.26) |
| E2.2 Time Required | 0.29 | (0.33) | 0.15 | (0.22) | -0.16 | (0.30) |
| E2.3 Eligible Expenses | -0.21 | (0.28) | -0.59* | (0.35) | 0.21 | (0.26) |
| E3.1 Combination Premium-Loan | 0.52** | (0.25) | 0.03 | (0.25) | -0.29 | (0.23) |
| Project Characteristics | | | | | | |
| Agreements signed | 0.41 | (0.65) | -0.64 | (0.55) | 0.72 | (0.57) |
| OP Support | 0.62** | (0.31) | 0.04 | (0.28) | 0.27 | (0.26) |
| Project Completion year | 0.18 | (0.24) | -0.01 | (0.20) | 0.30 | (0.20) |
| Beneficiary Characteristics | | | | | | |
| A5 Entrepreneur education | 0.36 | (0.52) | 0.17 | (0.41) | 0.50 | (0.47) |
| NACE 2digits | -0.10 | (0.10) | -0.08 | (0.07) | 0.01 | (0.07) |
| NACE Technology intensity | -0.46 | (0.63) | -0.60 | (0.42) | 0.27 | (0.43) |
| Size micro | -0.44 | (0.75) | 0.66 | (0.53) | 1.04* | (0.56) |
| Size small | -0.08 | (0.64) | 0.35 | (0.48) | 0.41 | (0.47) |
| NUTS1 | 0.11 | (0.13) | -0.17 | (0.12) | -0.12 | (0.12) |
| Dummy NUTS2 PL41 | -0.78 | (0.60) | 0.03 | (0.54) | 0.25 | (0.47) |
| B2 Before 09 public support | -0.43 | (0.47) | 0.29 | (0.32) | -0.03 | (0.32) |
| C3 Other Investment support | 0.07 | (0.40) | -0.40 | (0.34) | 0.67** | (0.32) |
| $	au_1$ | 0.65* | (0.40) | 0.75 | (0.53) | 0.82** | (0.41) |
| $	au_2$ | 1.08*** | (0.45) | 1.23*** | (0.51) | 1.16* | (0.61) |
| $	au_3$ | 1.65*** | (0.45) | 1.87*** | (0.49) | 1.68*** | (0.52) |
| $	au_4$ | 1.84*** | (0.46) | 2.29*** | (0.53) | 2.11*** | (0.49) |
| $	au_5$ | 2.35*** | (0.52) | 2.95*** | (0.61) | 2.67*** | (0.72) |
| Observations | 198 | | 198 | | 198 | |
| Log Likelihood | -75.46 | | -155.9 | | -171.9 | |
| McFadden's R2 | 0.540 | | 0.337 | | 0.248 | |
| Likelihood ratio test Source: Csil | 117.6 | | 146.8 | | 118.5 | |

Note: Table shows the determinants of behavioural changes of interviewed Polish firms. The variables `F2 Expansion Possibilities' and `F2 Upgrading Employees' are expressed in principal components. Robust standard errors are reported in parentheses. *** , ** , * denote significance at the 1% , 5% 10%.

Table 10. Multinomial Logit Estimates

| Dependent Variable | (1) | (2) | |
|-----------------------|-----|-----|--|
| F4 Future Application | | | |

E4. Future ApplicationBase Outcome ("I do Not Know") 'I think so' 'I think so'

| , | | | | |
|---|-------------|---------|------------------|---------|
| Variables | Coefficient | Std Err | Coefficient | Std Err |
| Type of change variables | | | | |
| D1.1 Widened prod and serv | 1.88** | (0.92) | 2.02** | (0.97) |
| D1.2 Improved prod and serv | 0.40 | (0.77) | 0.37 | (0.80) |
| D1.3 Upgraded processes | -0.77 | (0.82) | -0.96 | (0.86) |
| D1.4 New prod and serv | -0.83 | (0.74) | -1.04 | (0.79) |
| D1.5 New foreign markets | 1.21 | (1.10) | 1.19 | (1.08) |
| D1.6 Company reputation | -0.55 | (0.77) | -0.31 | (0.77) |
| D1.7 Work organisation | 0.45 | (0.81) | 0.41 | (0.85) |
| D1.8 Environmental impact | 1.09 | (1.04) | 1.72 | (1.19) |
| D1.9 Energy consumption | 0.81 | (1.34) | 0.60 | (1.32) |
| D1.10 know_skils_increase | 0.44 | (0.81) | 0.50 | (0.82) |
| D1.11 New employees | 0.24 | (0.74) | 0.26 | (0.77) |
| D1.12 Maintain same employees | 1.53 | (1.25) | 1.81 | (1.34) |
| Economic Results | 1.55 | (1.23) | 1.01 | (1.54) |
| D4.1 Increase Sales | -1.00 | (0.72) | -1.23 | (0.98) |
| D4.1 Increase Sales D4.4 Increase Exports | 1.10 | (0.72) | 1.09 | (0.72) |
| D4.5 Decrease Costs | 0.78 | (0.68) | 0.75 | (0.69) |
| Behavioural Changes | 0.78 | (0.00) | 0.75 | (0.09) |
| F2.2 Opinion Public Support | 1.47*** | (0.56) | 1.54*** | (0.59) |
| F2 Expansion Possibilities | -0.05 | (0.27) | -0.07 | (0.25) |
| F2 Upgrading Employees | -0.03 | (0.42) | -0.07 | |
| Opinion Application Issues | -0.22 | (0.42) | -0.23 | (0.40) |
| E2.1 Simplicity | -0.78 | (0.62) | -1.00 | (0.69) |
| E2.2 Time Required | 0.10 | (0.46) | 0.45 | (0.48) |
| E2.3 Eligible Expenses | 0.50 | (0.52) | 0.49 | (0.54) |
| E3.1 Combination Premium-Loan | 0.77** | (0.38) | 0.49 | (0.44) |
| Project Characteristics | 0.77 | (0.36) | 0.93 | (0.44) |
| - | -0.75 | (0.70) | -1.54* | (0.04) |
| Agreements signed | | (0.79) | -1.54** -0.40 | (0.94) |
| OP Support | -0.20 | (0.47) | | (0.53) |
| Project Completion year | -0.13 | (0.31) | -0.07 | (0.33) |
| Beneficiary Characteristics | -0.42 | (0.72) | -0.93 | (0.9E) |
| A5 Entrepreneur education | | (0.73) | -0.93 -0.31 | (0.85) |
| NACE Zaigits | -0.16 | (0.13) | -0.31 | (0.16) |
| NACE Technology intensity Med-low tech sectors | 1.72** | (0.83) | 2.35** | (1.10) |
| | | | 2.35*** | (1.10) |
| High-low tech sectors | 0.10 | (1.12) | | (1.29) |
| Size micro | 0.18 | (1.12) | 0.99 | (1.31) |
| Size small | -0.87 | (0.79) | -0.67 | (0.87) |
| NUTS1 | -0.41* | (0.24) | -0.36 | (0.24) |
| Dummy NUTS2 PL41 | -0.60 | (0.72) | 0.74 | (0.75) |
| B2 Before 09 public support | -1.21** | (0.60) | 0.70 | (0.00) |
| Yes, at least once | | | -0.72 | (0.90) |
| I do not know | | (0.4-) | -3.39* | (1.32) |
| C3 Other Investment support | 0.51 | (0.47) | 0.30 | (0.50) |
| Constant | 2.51 | (6.21) | 1.35 | (6.56) |
| Observations | 198 | | 198 | |
| Log Likelihood | -44.20 | | -39.13 | |
| McFadden's R2 | 0.509 | | 0.566 | |
| Likelihood ratio test | 91.74 | | 101.9 | |
| Source: Csil | | | | |

Source: Csil

Note: Table shows the determinants of the probability of applying again in the future. The base outcome of the multinomial logit model is the group of firms that choose 'I do not know' to the question E4. Column (2) shows the same model as the column (1), but the variables 'NACE technology intensity' and 'B2 Before 09 pubic support' are broken down. Standard errors are reported in parenthesis ***, **, * denote significance at the 1%, 5%, 10%.

Table 11. Logit Estimates. Type of change performances.

| Dependent variable is | (1) | | (2) | | (1) | | (2) | |
|---|--------------------|------------------|-----------------|------------------|-----------------|------------------|---------------|------------------|
| 15 | D1.1 Wid Prod/s | | D1.1 W Prod/ | | D1.5 | | | New |
| Variables | coef | serv | coef | serv | foreigr coef | se | coef | n mkts se |
| Type of change variables | | | | | | | | |
| D1.1 Widened prod and | | | | | -0.63 | (0.91) | | |
| serv | | | | | 0.05 | (0.51) | | |
| D1.2 Improved prod and serv | -0.41 | (0.75) | | | -0.85 | (0.74) | | |
| D1.3 Upgraded | 2.39*** | (0.88) | | | 2.14** | (0.83) | | |
| processes | | ` , | | | | ` , | | |
| D1.4 New prod and serv | 1.82** | (0.77) | | | 0.93* | (0.54) | | |
| D1.5 New foreign | -0.49 | (0.87) | | | | | | |
| markets | | | | | | | | |
| D1.6 Company reputation | 1.41 | (1.43) | | | 2.30*** | (0.63) | | |
| D1.7 Work organisation | -1.00 | (1.38) | | | 0.71 | (0.51) | | |
| D1.8 Environmental | 0.89 | (0.72) | | | -0.50 | (0.69) | | |
| impact D1.9 Energy | 1.36 | (1.19) | | | 0.88 | (0.60) | | |
| consumption | 0.00 | (0.77) | | | 0 77 | (0.40) | | |
| D1.10 know skils | 0.38 | (0.77) | | | -0.77 | (0.49) | | |
| increase | -0.11 | (0.94) | | | 1.17* | (0.66) | | |
| D1.11 New employees D1.12 Same employees | -0.11 -2.40** | (0.84) (1.06) | | | -0.12 | (0.82) | | |
| Project Characteristics | -2.40 | (1.00) | | | -0.12 | (0.62) | | |
| Agreements signed | 0.65 | (0.78) | 0.52 | (0.68) | 0.44 | (0.83) | 0.05 | (0.52) |
| OP Support (log) | 1.23** | (0.52) | 1.22** | (0.39) | -0.27 | (0.42) | 0.21 | (0.27) |
| Project Completion year | -0.50 | (0.31) | 0.29 | (0.24) | -0.41** | (0.21) | -0.36* | (0.20) |
| Beneficiary Characteristic | | () | | (-) | | (-) | | () |
| Initial export share | 0.49 | (0.38) | 0.28 | (0.29) | 0.41** | (0.21) | 0.25* | (0.15) |
| Initial turnover | 0.47* | (0.28) | 0.50** | (0.25) | -0.01 | (0.23) | -0.23 | (0.16) |
| A5 Entrepreneur | 0.66 | (0.43) | 0.81** | (0.40) | 0.24 | (0.26) | 0.26 | (0.24) |
| education | | | | | | | | |
| NACE 2digit | 0.07 | (0.14) | -0.03 | (0.12) | 0.08 | (0.10) | 0.07 | (0.08) |
| NACE Technology | -0.99 | (1.35) | -0.57 | (0.88) | 0.14 | (0.63) | 0.46 | (0.45) |
| intensity | 2.29** | (1.12) | 1.07 | (0.05) | 0.64 | (1.05) | 0.07 | (0.70) |
| Size micro Size small | 2.29*** 4.45* | (1.12) (2.44) | 1.07 3.41** | (0.85) (1.66) | -0.64 0.35 | (1.05) (0.64) | -0.87 0.34 | (0.78) (0.43) |
| NUTS1 | -0.01 | (2.44) (0.20) | 0.07 | (0.21) | -0.01 | (0.64) (0.15) | 0.34 | (0.43) (0.12) |
| Dummy NUTS2 PL41 | -1.10 | (1.21) | -0.40 | (0.21) (0.78) | -1.43** | (0.13) | -0.86 | (0.12) (0.56) |
| B2 Before 09 public | -0.11 | (0.62) | -0.80 | (0.70) | 0.90** | (0.42) | 0.22 | (0.35) |
| support | 0.11 | (0.02) | 0.00 | (0.70) | 0.50 | (0.12) | 0.22 | (0.55) |
| C3 Other Investment | -0.57 | (1.25) | -0.54 | (0.91) | 0.32 | (0.75) | 0.40 | (0.61) |
| support Constant | 1.60 | (1.41) | 1.52 | (1.89) | 1.88 | (1.61) | 1.50 | (1.55) |
| Observations | 170 | | 170 | | 170 | | 170 | |
| Log Likelihood | -31.23 | | -39.44 | | -64.26 | | -87.91 | |
| McFadden's R2 | 0.382 | | 0.220 | | 0.335 | | 0.090 0 | |
| Likelihood ratio test Source: Csil | 31.03 | | 12.35 | | 48.87 | | 18.39 | |

Columns (1) and (2) show the determinants of the probability of widening the products and services. Columns (3) and (4) show the determinants of the probability of accessing in foreign markets. Robust standard errors are reported in parentheses***, **, * denote significance at the 1%, 5% 10%.

1.6. Analysis of aid intensity

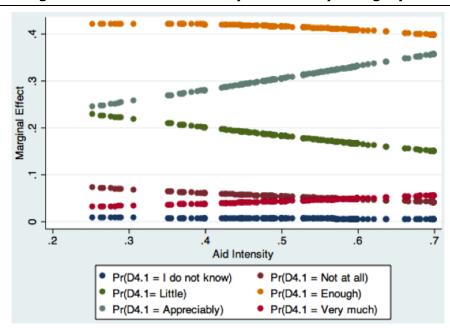
Table 12. Ordered Logit Estimates. Effect of Aid Intensity on Sales

| coef | se |
|----------|---|
| 1.37 | (1.29) |
| -4.56*** | (1.22) |
| -2.11*** | (0.76) |
| -0.47 | (0.71) |
| 1.32* | (0.72) |
| 3.81*** | (0.79) |
| 200 | |
| -269.5 | |
| 0.00209 | |
| 1.129 | |
| _ | 1.37 -4.56*** -2.11*** -0.47 1.32* 3.81*** 200 -269.5 0.00209 |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 30. Marginal Effect of Aid Intensity on Sales by Category



Source: Csil

Table 13. Marginal effect of aid intensity on sales compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect (*100) |
|---------------|-----------------------|--------------------------------|
| Little | 0.53 | -0.17 |
| Enough | 0.53 | -0.07 |
| Not at all | 0.56 | -0.06 |
| Appreciably | 0.56 | 0.26 |
| Very Much | 0.58 | 0.06 |
| I do not know | 0.68 | -0.01 |

Figure 31. Marginal effect of aid intensity on sales compared to the level of aid intensity, by category

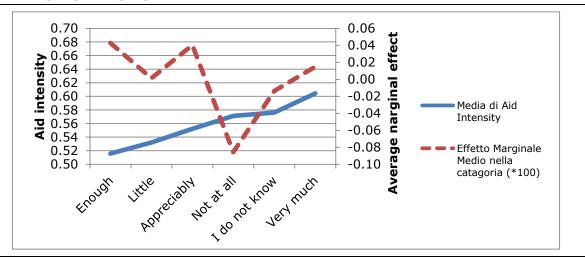


Table 14. Ordered Logit Estimates. Effect of Aid intensity on Exports

| Dep. Variable | | |
|------------------------|---------|--------|
| D4.4 Increased Exports | | |
| VARIABLES | coef | se |
| | | |
| Aid_intensity | 0.51 | (1.54) |
| Init_export_share | 0.68*** | (0.12) |
| Initial_turnover | 0.06 | (0.10) |
| Constant 1 | -1.70 | (1.15) |
| Constant 2 | 1.37 | (1.08) |
| Constant 3 | 2.83** | (1.10) |
| Constant 4 | 4.32*** | (1.13) |
| Constant 5 | 6.09*** | (1.21) |
| Observations | 169 | |
| Log Likelihood | -236.1 | |
| McFadden's R2 | 0.0779 | |
| Likelihood ratio test | 39.92 | |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 15. Marginal effect of aid intensity on export compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect (*100) |
|---------------|-----------------------|--------------------------------|
| Enough | 0.52 | 0.04 |
| Little | 0.53 | 0.00 |
| Appreciably | 0.55 | 0.04 |
| Not at all | 0.57 | -0.08 |
| I do not know | 0.58 | -0.01 |
| Very much | 0.60 | 0.01 |
| | | |

Figure 32. Marginal effect of aid intensity on export compared to the level of aid intensity, by category

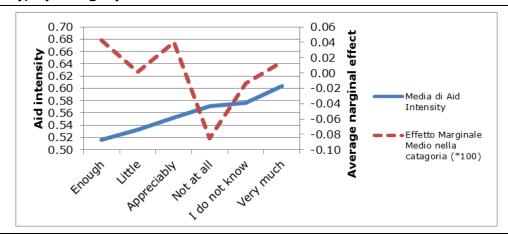


Table 16. Logit Estimates. The effect of Aid Intensity on Employment Growth

| Dep Variabile | (1) | (2) |
|--------------------------|---------|--------|
| Employment Growth | | |
| VARIABLES | coef | se |
| Aid_intensity | 2.72 | (2.01) |
| Constant | -2.57** | (1.16) |
| Observations | 170 | |
| Log Likelihood | -96.08 | |
| McFadden's R2 | 0.0116 | |
| Likelihood ratio test | 1.827 | |

Source: Csil

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 33. Marginal Effect of Aid Intensity on Employment Growth

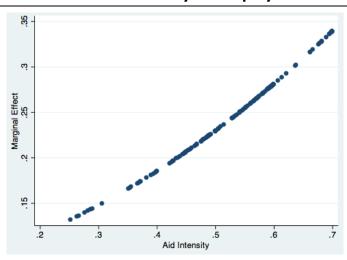


Figure 34. Marginal Effect of Aid Intensity on Employment Growth

| Category | Average Aid Intensity | Average Marginal Effect |
|-----------|-----------------------|-------------------------|
| Increased | 0.57 | 0.51 |
| Same | 0.55 | 0.00 |

ANNEX 2. Survey to beneficiary SMEs of Apulia: questionnaire and analysis of results

2.1. Questionnaire

QUESTIONNAIRE

This questionnaire is addressed to the **enterprise owners** who benefitted from the regional call "Aid for investment programmes for Micro e Small enterprises", also known as "**Title II**".

Its main objective is to get information on the typology of realised investments and on their effects on the performance of beneficiary enterprises during the period 2009-2015.

The survey is carried out by CSIL (Centre for Industrial Studies) in collaboration with the Apulia Region and Puglia Sviluppo, within the framework of an ex-post evaluation study on the contribution of the European Regional Development Fund to support the development and innovation of European Small and Medium Enterprises.

The compilation of the questionnaire requires about 15 minutes. Your answers will be treated confidentially, will be statistically processed and results will be presented in a report for the European Commission at aggregate level only.

For any request of clarification please contact Ms. Rita Marseglia (<email address>, <phone number>).

Thanks for your cooperation!2

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² The asterisk '*' indicates the mandatory questions.

Section A: GENERAL INFORMATION

In this section you will be asked general information about your enterprise, in particular with reference to its typology and dimension.

| A1. Name of your enterprise | |
|--|--------------------------------|
| A2. Legal status * | □ Individual enterprise |
| | □ Partnership |
| | □ Limited liability enterprise |
| A3. Year of establishment | |
| A4. Age of the enterprise owner today * | |
| A5. Gender of the owner | □ Male |
| | □ Female |
| A6. Education attainment of the enterprise | □ Primary education |
| owner * | □ Secondary education |
| | □ Bachelor's degree |
| | ☐ Master |
| | □ PhD |
| | □ Other - specify |

Section B: SOURCES OF INFORMATION

In this section you will be asked how you knew about Title II, and whether you had any past experience of other measures of public support to enterprises, before applying for the Title II.

| B1. How did you hear about Title II? * | More than one answer available, maximum three |
|--|--|
| | ☐ From the bank, when requesting funds |
| | □ Newsletter/advertising materials from the bank □ Business associations |
| | □ Credit providers (Confidi) |
| | ☐ Enterprise consultants / business consultant |
| | □ Word of mouth from other enterprises □ Web-based research |
| | □ Seminars/public meetings |
| | Regional promotional material |
| | □ Friends □ Other - please specify: |
| | U Offici - piedse specify. |
| B2. Before requesting | □ Yes, at least once |
| the contribution of Title | □ No, never |
| II, did your enterprise already benefit from | □ I don't know |
| other public funding? * | |

Section C: IMPLEMENTED INVESTMENT

Questions of this section aim at collecting information about the investment you implemented with the contribution of Title II.

In case you benefitted from more than one Title II contribution, in answering please refer to the whole set of investments for which you received contributions.

C1. What was the investment project for which you received the Title II contribution? * More than one answer is possible □ Purchase of land ☐ Purchase of assets for commercial activity o purchase of cars or other vehicles for o for a new activity o to expand an already existing activity commercial purposes o purchase computers of for sales □ Purchase of building employees o for production purposes o purchase of furniture and assets for o for the warehouse commercial/ exposition/catering areas o for commercial/exposition/catering (different from previous ones) purchase of informatics software or purposes o as space for offices creation of websites to sell o for other use – please specify products/services o other assets – please specify □ Restructuring o of production area ☐ Purchase of assets for administrative activity o of warehouse o computer for the office o furniture, tools and equipment for the o of commercial/exposition/catering areas office (different from previous ones) o of office spaces informatics software required for o of areas dedicated to other use enterprise management and please specify organisation patents and licenses rights required to ☐ Purchase of assets for the production enterprise management o purchase of systems, equipment, robot organisation o other assets for the office - please for automation purchase of other machinery and specify equipment o purchase of informatics systems □ Purchase of other assets o purchase of patents and licenses rights o installations, equipment and systems to o other assets – please specify improve internet connection o other instruments for telecommunications Purchase of assets for the warehouse o installations and equipment for air o purchase of systems, equipment for conditioning automation, robot o machinery, installations and equipment o purchase of other machinery and for waste management Installations and equipment for safety equipment o purchase of informatics systems and surveillance (e.g., alarm and fire o other assets – please specify systems) o expenses for engineering design and construction supervision expenses consulting services related to the project

other assets – please specify

| C2. How many times have you benefited from Title II during the period 2009-2013? * | □ Once → Go to C2.1.1 e C2.1.2 □ More than once → Go to C2.2.1 e C2.2.2 |
|---|--|
| If C2 = "Once" C2.1.1. Was the public contribution you received at the end of the investment equal to the contribution promised by the Region before the investment? * | ☐ Yes ☐ No, the received contribution was lower ☐ I don't know |
| C2.1.2. Did you benefit also from public credit guarantees (Confidi) for the project for which you received the Title II contribution? * | ☐ Yes ☐ No ☐ I don't know |
| If C3 = "More than once" C2.2.1. Were the public contributions you received at the end of the investments equal to the contributions promised by the Region before the investment? * | ☐ Yes, for all projects for which I received a Title II contribution ☐ No, at least in one case the received contribution was lower than the promised one ☐ I don't know |
| C2.2.2. Did you benefit also from public credit guarantees (Confidi) for at least one of the projects for which you received the Title II contribution? * | □ Yes □ No □ I don't know |
| C3. Did you start other development/innovation investment for which in the last years (from 2007 onwards), other than the one for which you benefitted from Title II? | □ Yes → Go to C3.1. □ No |
| If C3 = "Yes" C3.1. Did you received any public contribution to implement those investments (different from Title II)? | □ Yes □ No |

Section D: INVESTMENT RESULTS

Questions of this section aim at identifying the economic returns and other benefits stemming from the investment project for which you received the Title II contribution.

In case you benefitted from more than one Title II contribution, in answering please refer to the whole set of projects for which you received contributions.

| D1. What changes have you observed after the investment for which you received the | Γitle II |
|---|----------|
| contribution? | |
| Select the most relevant changes out of the following list (at least one) | , |
| D1.1. I started a new activity | |
| D1.2. I widened the range of offered products/services | |
| D1.3. I improved the existing products/services | |
| D1.4. I am able to produce /offer more products/services in a given amount of time (productivity improvement) | |
| D1.5. I am able to produce/offer a unit of product/service at a lower cost (efficiency improvement) | |
| D1.6. I am able to sell innovative products/services that did not exist in the local market before | |
| D1.7. I developed new sale channels (e.g. online sales) | |
| D1.8. I made the enterprise more popular | |
| D1.9. I widened or improved the spaces | |
| D1.10. I made the working areas and other spaces look nicer | |
| D1.11. I have a faster internet connection | |
| D1.12. I improved the overall work organisation | |
| D1.13. I improved the safety of the workplace | |
| D1.14. I made my enterprise compliant with regulations | |
| D1.15. I reduced the enterprise environmental impact (emissions, waste, water pollution, noise | П |
| pollution) | |
| D1.16. I reduced the enterprise energy consumption | |
| D1.17.1 improved my and/or employees' knowledge and skills | |
| D1.18. I hired new employees (full time or part time) | |
| D1.19.1 managed to safeguard the existing employment | |
| D1.20. I reduced the total number of employees (full time o part time) | |
| D1.21. Other – please specify | |

| D2. Which economic results have you achieved thanks to the investment for which you received the contribution of Title II? * | NOT AT ALL | LITTLE | ENOUGH | APPRECI ABLY | VERY MUCH | I don't Know |
|--|------------|--------|--------|-----------------|--------------|-----------------|
| D2.1. I increased sales | | | | | | |
| D2.2. I increased the number of clients | | | | | | |
| D2.3. I diversified the type of clients | | | | | | |
| D2.4. I increased exports (if you don't export, select "Not at all") | | | | | | |
| D2.5. I decreased total costs | | | | | | |
| D2.6. I increased the enterprise resilience to the economic crisis effects | | | | | | |
| D2.7. I increased my own income | | | | | | |
| D2.8. Other – specify: | | | | | | |

Section E: OPINIONS ABOUT TITLE II

The questions of this sections aim at collecting your opinion about your experience concerning the Title II contribution.

In case you benefitted from more than one Title II contribution, in answering please refer to the first projects for which you received the contribution.

| E1. To what extent did the possibility of benefitting from the Title II influence the decision of implementing the investment? * Select the most relevant option(s) | □ Without the Title II contribution I would have faced more problems of liquidity □ Without the Title II contribution I would have postponed the investment □ Without the Title II contribution I would have realized a smaller and less ambitious investment □ Without the Title II contribution I would have not started the investment □ Other – specify: | | | | |
|--|--|---------------------|-------------|-----------|-------------------|
| E2. Please provide your opinion about the following aspects related to your experience in applying for funds * | NOT SATISFIED AT ALL | POORLY SATISFIED | Indifferent | SATISFIED | VERY SATISFIED |
| E2.1. Support from the bank for the contribution application | | | | | |
| E2.2. Support of the accountant or other consultants for the contribution application | | | | | |
| E2.3. Support from Puglia Sviluppo during the whole procedure | | | | | |
| E2.4 Simplicity of the documents to be presented for the application | | | | | |
| E2.5. Time necessary to obtain the endorsement of the project from Puglia Sviluppo/Apulia Region after the submission of the application | | | | | |
| E2.6. Simplicity of the reporting process to obtain the public contribution | | | | | |
| E2.7. Time necessary to prepare documents required to obtain the contribution after the completion of the investment | | | | | |
| E3. Do you think you would apply | ! | hink so | | | |

□ I do not know

Section F: CHANGES IN YOUR WAY OF DOING BUSINESS

This last section investigates on further, not necessarily economic, changes in your way of doing business and in the organisation of your enterprise thanks to Title II contribution.

| F1. Describe in one word your mood when you understood that your application demand was approved | WORRIED I WAS PREPARED TO IT I DO NOT REMEMBER HAPPY ENTHUSIASTIC OTHER: | | | | |
|---|---|----------|-------|-------------------|-----------------|
| F2. Please indicate your degree of agreement with the following statements * IF YOU DON'T NOTICE ANY OF THE FOLLOWING | STRONGLY DISAGREE | DISAGREE | AGREE | STRONGLY AGREE | l don't know |
| CHANGES, SELECT "STRONGLY DISAGREE" | | | | | |
| F2.1. Thanks to Title II the relation with my bank has improved | | | | | |
| F2.2. Thanks to Title II my opinion about Puglia Sviluppo has improved | | | | | |
| F2.3. Thanks to Title II my trust on Regional administration has increased | | | | | |
| F2.4. After benefitting from Title II, my opinion about the initiatives funded by the European Union has improved | | | | | |
| F2.5. After benefitting from Title II, it happened more often to me to consider new investment projects that I never considered before | | | | | |
| F2.6. After benefitting from Title II, I started to search more frequently news about public initiatives supporting enterprises in Apulia | | | | | |
| F2.7. After benefitting from Title II, I made a work trip different from usual ones to explore new markets | | | | | |
| F2.8. After benefitting from Title II, I realised that it would be better to have more | | | | | |
| employees speaking foreign languages F2.9. After benefitting from Title II, I realised that it would be better to have a greater number of relatively younger employees | | | | | |
| F2.10. After benefitting from Title II, I realised that it would be better to have more skilled employees | | | | | |
| F2.11. After benefitting from Title II, I considered to create or improve the website of my enterprise | | | | | |
| F2.12. After benefitting from Title II, I considered to increase the enterprise's presence in social medias (e.g. Facebook, Twitter) | | | | | |
| F3. Open comments | | | | | |

Section G: FINAL CONSIDERATION
In this section we ask you some final and synthetic considerations about Title II.

| G1. Was the instrument tailored to your expectations? | ☐ Yes ☐ No For what reasons? |
|---|------------------------------|
| G2. Did the instrument contribute to the growth and development of your enterprise? | □ Yes □ No Specify |
| G3. Highlight any elements that could lead to an improved functionality and operation of the instrument | |
| G4. Do you think that this instrument should be replicated in the future? | □ Yes □ No Specify |

Section H: ADDITIONAL INFORMATION ON THE ENTERPRISE

In this last section we ask you a few additional information on your enterprise. We remind you that all answers will remain anonymous.

| H1. Number of people employed except for the owner, paid or not | YEAR OF REQUEST OF TITLE II CONTRIBUTION IF YOU RECEIVED MORE THAN ONE TITLE II CONTRIBUTION PLEASE REFER TO THE FIRST TIME YOU REQUESTED IT | END OF 2014 |
|---|--|--------------------|
| | FULL TIME: | FULL TIME: |
| H2. Amount of turnover/annual sales | YEAR OF REQUEST OF TITLE II CONTRIBUTION IF YOU RECEIVED MORE THAN ONE TITLE II CONTRIBUTION PLEASE REFER TO THE FIRST TIME YOU REQUESTED IT | end of 2014 |
| less than eur 500 thousand | | |
| between eur 500 thousand and eur 3 million | | |
| between eur 3 million and eur 6,5 million | | |
| between eur 6.5 million and eur 10 million | | |
| more than eur 10 million | | |
| H3. Share of exports on total sales | YEAR OF REQUEST OF TITLE II CONTRIBUTION IF YOU RECEIVED MORE THAN ONE TITLE II CONTRIBUTION PLEASE REFER TO THE FIRST TIME YOU REQUESTED IT | end of 2014 |
| NULL | | |
| less than 10% | | |
| Between 10% and 30% | | |
| Between 30% and 50% | | |
| more than 50% | | |

2.2. Analysis of the sample representativeness

As the Polish case (see section 1.3 Annex 1) and before presenting the descriptive statistics of the variables coming from the survey, we perform a representative analysis based on variables available both in the sample and in the population of beneficiaries. The aim is to check if the sample is aligned to the population of beneficiaries according to those variables whose distributions are shown in the following figures.

The survey was carried out between August 8th - September 24^h 2015 and was addressed to SMEs of Apulia that benefitted from the Title II. The number of respondents was 399 out of 2441 beneficiary enterprises that already received the public contribution. However, not all beneficiaries could be contacted as email addresses were available for 1,586 enterprises only 1,586. Thus, the response rate is 25.2%. In the following graphs, the population refers to the 2,441 beneficiary enterprises.

84% 90% 75% 80% 70% 60% 50% Population 40% 25% Sample 30% 15% 20% 10% 0%

Small

Figure 35. Size of enterprises

Source: CSIL.

Note: The sum of percentages in the population is 99%; 1% is missing.

Micro

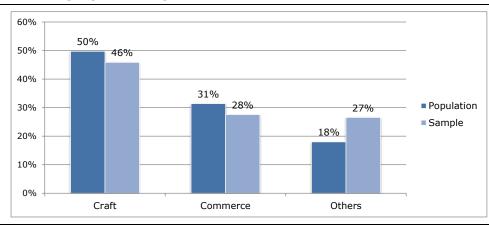


Figure 36. Category of enterprises

Source: CSIL.

Note: The sum of percentages in the population is 99%; 1% is missing.

Figure 35 and Figure 36 look, respectively, at the size of firm and at category it belong to both in the population and in the sample. The firm's category distinguishes between 'craft', 'commerce' and 'others'. In Figure 35, the sample over-represents small enterprises. This was due to the higher difficulty to reach single entrepreneurs or micro companies for which no valid email contacts were available. Figure 36 highlights the preponderance of the category of enterprises 'Others' in the sample with respect to the population. To deal with these issues in the statistical analysis, we control for both size and category.

40% 34% 35% 27% 30% 25% 20% 15% 10% 5% Population 0% Sample Electricity, gas and water supply Manufacturing Construction Wholesale and retail trade; repair of motor. Hotels and restaurants Communication and echnology services estate, renting and Education social Fransport, storage and Professional and scientific activities Health and social work Entertainment and personal service... business activities communication Other community, Real

Figure 37. Sector of activity

Source: CSIL

The profile of SMEs split by sector of activity is presented in Figure 37. We note an excessive number of manufacturing firms in the sample with respect to the population; the opposite is true for firms belong to the wholesale and retail sector.

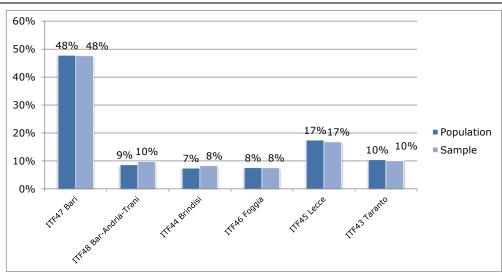


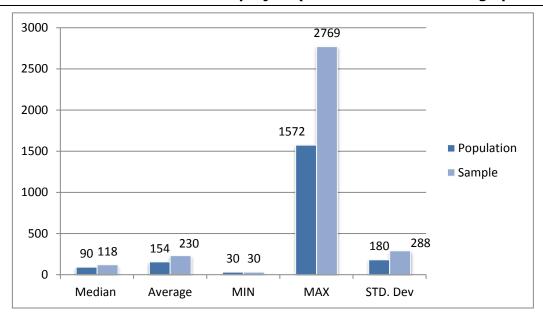
Figure 38. Share of respondents by province (NUTS 3)

Source: CSIL

Note: The sum of percentages in the population is 99%; 1% is missing.

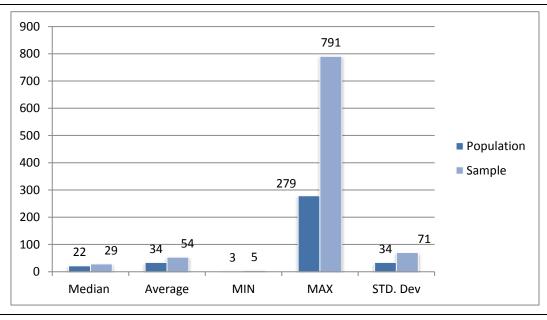
Figure 38 shows the distribution of the sampled firms and of the whole pool of beneficiaries across the Apulia territory. There are no gaps between the sample and the population. Most of beneficiaries are located in the province of Bari.

Figure 39. Value of the investment project (thousand EUR on average per SME)



Source: CSIL

Figure 40. Value of the public support (thousand EUR on average per SME)



Source: CSIL.

Figure 39 and Figure 40 compare, respectively, the distribution of the value of the investment project and the value of the public support emerging from the sample and the population. Both the bar charts reveal that the median, the mean and the max of the aforementioned variables

are higher in the sample with respect to the population meaning that the distributions of the sampled SMEs are shifted towards the right compared to the respective population.

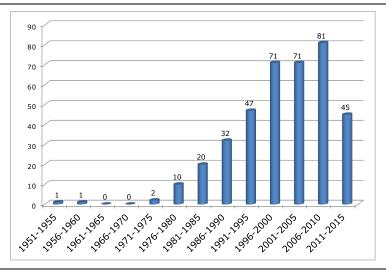
Overall, the representative analysis reveals two facts. First, there are some discrepancies between the population and the sample in terms of size, category and sector of activity. We deal with this issue by using these variables as controls in the econometric analysis (see section 1.5). Second, the sample slightly over-represents the value of the investment and of the public support in the population. This is particularly true in the right-tail of both the distributions. To reduce this bias, the sample was trimmed at the 99th percentile of the distribution of the investment value and of public support value.

2.3. Descriptive statistics of the questionnaire responses

Section A: General enterprise information

Analyzing the Figure 41, it is clear that most of the enterprises which benefitted of the Title II to carry out the investment project are quire young. Indeed, 70% of these were founded after 2000, while only 1% was founded before 1980.

Figure 41. A3 - Year of establishment

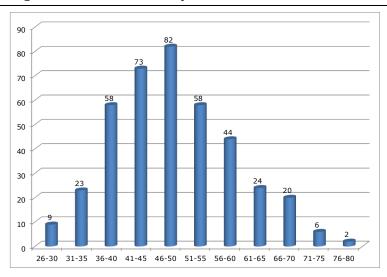


Source: Csil

Note: 381 respondents; 18 missing.

On the contrary, the average entrepreneur is middle aged. 79% of the owners are between 36 and 60 years old. Among them, 58% are older than 45. Moreover, those older than 60 years are more than those younger than 36, since they account for 13% and 8% of the total, respectively.

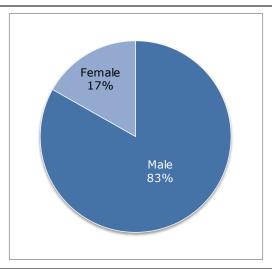
Figure 42. A4 - Age of the owner today



Source: Csil

Note: 399 respondents; 18 missing.

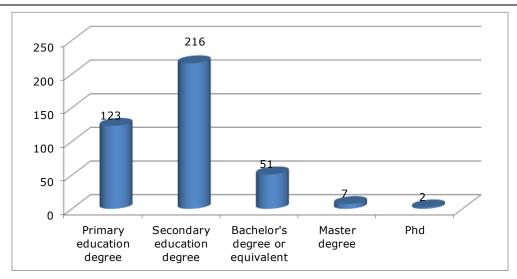
Figure 43. A5 - Gender of the owner



Note: 399 respondents.

It is clear that there is a high predominance of male entrepreneurs: 83% of the respondents are male. Also, they have mainly low levels of education. Indeed, 85% of them do not hold a university degree.

Figure 44. A6 - Education attainment of the owner

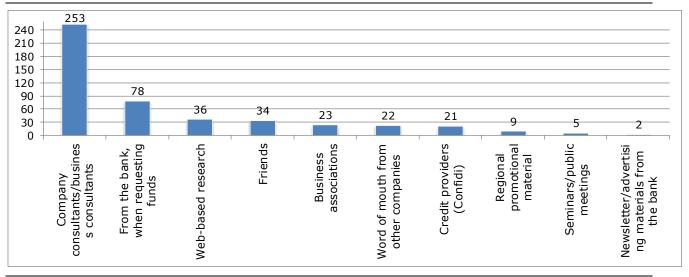


Source: Csil

Note: 399 respondents.

Section B: Sources of information

Figure 45. B1 - How did you hear about Title II?



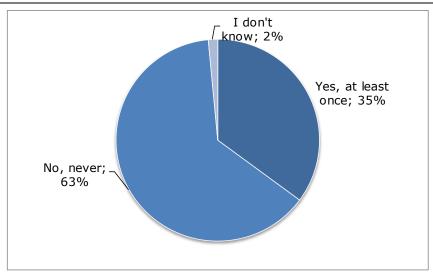
Source: Csil

Note: 483 total answers. More than one option was possible.

The main source used by respondents to get information about Title II is represented by: business consultants (253 respondents selected this option).

A remarkable result in terms of answers to the question B1 is reached also by banks, which suggest these enterprises benefitting from Title II when they request funds.

Figure 46. B2 - Before requesting the contribution of Title II, has your enterprise already benefitted from other public funding?



Source: Csil

Note: 399 respondents.

It is interesting to note that 63% of enterprises has never beneffited from other public funding.

Section C: Implemented investment

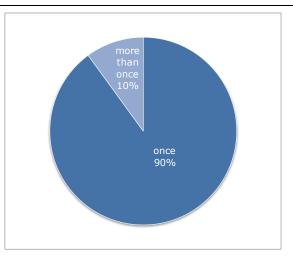
Figure 47. C1 - What was the investment project for which you received the Title II contribution?

| Type of expenses | Number of respondents | % | Subtotal |
|--|--------------------------|------|----------|
| Purchase of land - for a new activity | 4 | 0% | |
| Purchase of land - to expand an already existing activity | 53 | 5% | |
| | | | 5% |
| Purchase/construction of buildings - for production purposes | 52 | 5% | |
| Purchase/construction of buildings - for the warehouse/deposit | 24 | 2% | |
| Purchase/construction of buildings - for commercial/exposition/catering | 28 | 3% | |
| purposes | | | |
| Purchase/construction of buildings - as space of offices | 22 | 2% | |
| a decided construction of buildings as space of offices | | 270 | 11% |
| Restructuring - of production areas | 45 | 4% | 11/0 |
| Restructuring - of the warehouse/deposit | 16 | 1% | |
| Restructuring - of the warehouse, deposit Restructuring - of commercial/exposition/catering areas | 57 | 5% | |
| Restructuring - or commercial/exposition/catering areas | 37 | 370 | 13% |
| D | 40 | 40/ | 13% |
| Purchase of assets for the production - purchase of systems, equipment, robot | 42 | 4% | |
| for automation | | | |
| Purchase of assets for the production - purchase of other machinery and | 253 | 23% | |
| equipment | | | |
| Purchase of assets for the production - purchase of informatics systems | 42 | 4% | |
| Purchase of assets for the production - purchase of patents and licenses rights | 5 | 0% | |
| Purchase of assets for the warehouse - purchase of systems, equipment, | 4 | 0% | |
| automation, robot | | | |
| Purchase of assets for the warehouse - purchase of other machinery and | 32 | 3% | |
| equipment | | | |
| Purchase of assets for the warehouse - purchase of informatics systems | 9 | 1% | |
| Purchase of assets for commercial activity - purchase of cars and other | 23 | 2% | |
| vehicles for commercial purposes | 25 | 2 70 | |
| vernetes for commercial purposes | | | 4% |
| Purchase of assets for commercial activity - purchase of computers for sale | 31 | 3% | 4 70 |
| employees | 31 | 3 70 | |
| Purchase of assets for commercial activity - purchase of furniture and assets | 86 | 8% | |
| | 00 | 0 70 | |
| for commercial/exposition/catering areas | 1.0 | 10/ | |
| Purchase of assets for commercial activity - purchase of informatics software | 16 | 1% | |
| or creation of websites to sell products/services | | | |
| | | | 14% |
| Purchase of assets for administrative activity - computer for the office | 44 | 4% | |
| Purchase of assets for administrative activity - furniture, tools and equipment | 33 | 3% | |
| for the office | | | |
| Purchase of assets for administrative activity - informatics software required | 21 | 2% | |
| for enterprise management and organisation | | | |
| Purchase of assets for administrative activity - patents and licenses rights | 2 | 0% | |
| required to enterprise management and organisation | | | |
| | | | 9% |
| Purchase of other assets - installations, equipment and systems to improve | 11 | 1% | 2 / 0 |
| nternet connection | | ± /0 | |
| Purchase of other assets - other instruments for telecommunications | 8 | 1% | |
| Purchase of other assets - other instruments for telecommunications Purchase of other assets - installations and equipment for air conditioning | | | |
| | 44 | 4% | |
| Purchase of other assets - machinery, installation and equipment for waste | 7 | 1% | |
| management | 20 | 201 | |
| Purchase of other assets - installations and equipment for safety and | 38 | 3% | |
| surveillance | | | |
| Purchase of other assets - expenses for engineering design and construction | 20 | 2% | |
| supervision | | | |
| Purchase of other assets - expenses for consulting services related to the | 11 | 1% | |
| project | | | |
| | | | 13% |
| | 1107 | 100% | 100% |

According to the features represented in the above table, it is clear that Title II support was mainly asked to purchase assets for production and in particular, to lease machinery and equipment.

According to answers to question C2, it is evident that a strong majority benefitted from Title II only once.

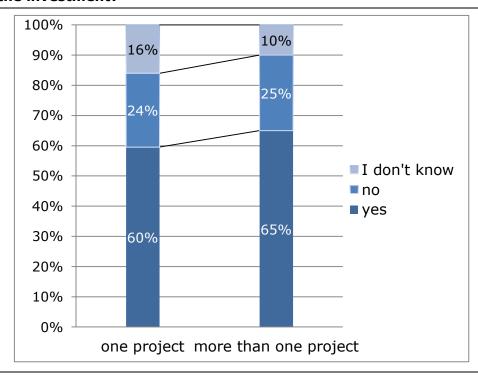
Figure 48. C2 - How many times have you benefitted from Title II during the period 2009-2013?



Source: Csil

Note: 399 respondents.

Figure 49. C2.1.1 - Was/were the public contribution/contributions you received at the end of the investment equal to the contribution promised by the Region before the investment?

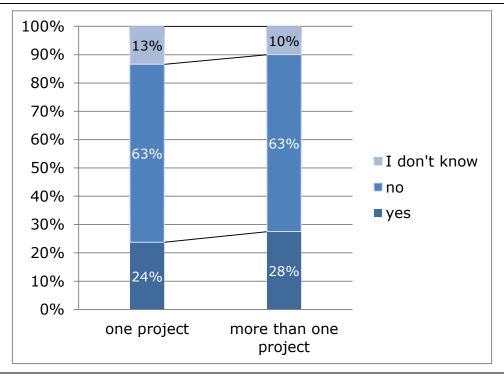


Source: Csil

Note: 359 respondents with one project and 40 with more than one project.

Figure 49 makes clear that enterprises, both when they implemented only one project and when they implemented one than more project, more often received a contribution that was equal to the contribution promised by the Region before the investment.

Figure 50. C2.1.2 - Did you benefit also from public credit guarantees (Confidi) for the project or at least one project for which you received the Title II contribution?

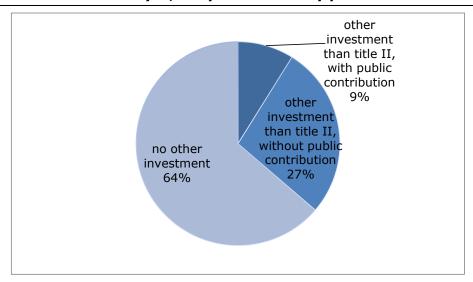


Source: Csil

Note: 359 respondents with one project and 40 with more than one project.

The majority of enterprises has not contemporary benefitted from credit guarantees. 64% enterprises have not implemented other investment projects from 2007 onwards. Thus, those who realised other projects are a minority.

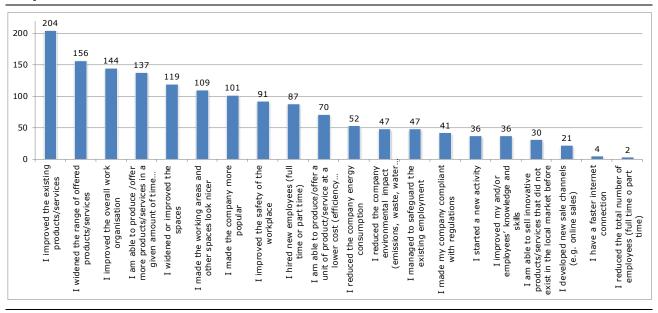
Figure 51. C3 - Did you start other development/innovation investment for which in the last years (from 2007 onwards), other than the one for which you benefitted from Title II? If yes, did you receive any public contribution?



Note: 394 respondents; 5 missing.

Section D: Investment results

Figure 52. D1 - What changes have you observed after the investment for which you received the Title II contribution?

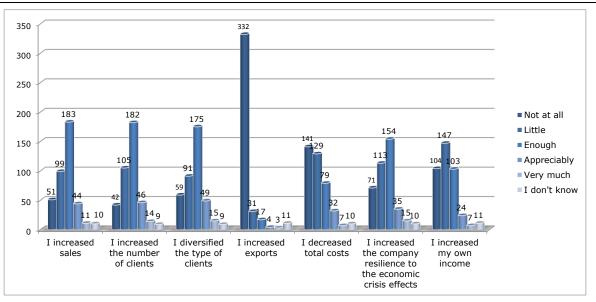


Source: Csil

Note: 1534 answers; more than one option.

Answers to question D1 show the types of changes provoked by the investment project. More in details, the main changes occurred to the majority of the respondents (204) are related to the improvement of existing products and services and the increase of the range of products offered.

Figure 53. D2 Which economic results have you achieved thanks to the investment for which you received the contribution of Title II?



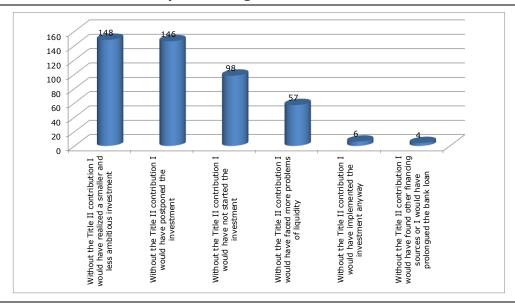
Source: Csil

Note: 399 respondents.

Figure 53 shows the level of approval in relation to seven different types of possible economic results. About 86% of respondents agreed on the fact that the main economic result achieved thanks to Title II contribution is not surely the increase of exports, as in fact most of beneficiaries do not export at all.

Section E: Opinions about Title II

Figure 54. E1 - To what extent did the possibility of benefitting from the Title II influence the decision of implementing the investment?

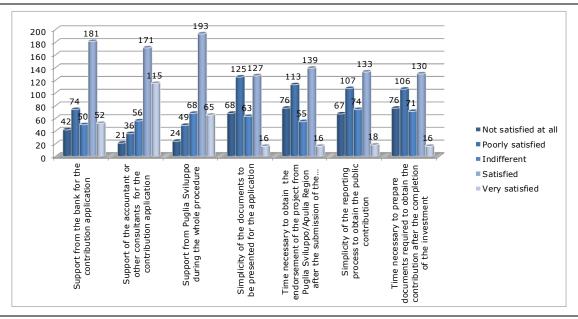


Source: Csil

Note: 399 respondents.

148 respondents declared that without the Title II they would have done a smaller investment, 146 said they would have postponed it and 98 would not have done it. There are also some enterprises which specified that they would have not had significant difficulties in carrying out the investment even without the public contribution.

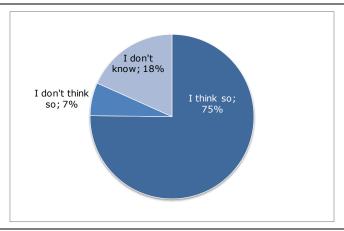
Figure 55. E2 - Please provide your opinion about the following aspects related to your experience in applying for funds



Source: Csil

Note: 399 respondents.

Figure 56. E3 - Do you think you would apply again for a public contribution for your enterprise?



Note: 399 respondents.

Figure 55 shows us the level of satisfaction of entrepreneurs relating to different aspects of the investment done thanks to Title II contribution. We can see that respondents are generally satisfied with the options proposed, in particular in with support received from banks and business consultants during the process of application and from Puglia Sviluppo during the whole procedure.

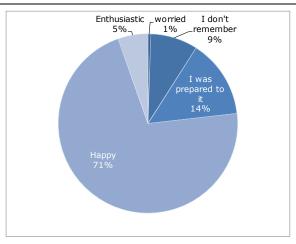
In contrast, entrepreneurs are not satisfied with all bureaucratic aspects related to dealing with public sector. In particular, they think documents to be presented are hard to produce and require a lot of time, while the time gap between the application and the endorsement of the project is too wide.

However, people are generally satisfied with the whole experience, because 75% of them think he/she will apply again in the future for a public contribution.

Section F: Changes in your way of doing business

This section illustrates the results regarding the changes produced by the policy instrument over the enterprises' way of doing business.

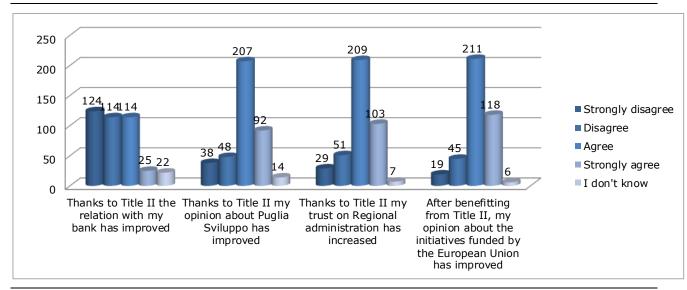
Figure 57. F1 - Describe in one word your mood when you understood that your application demand was approved



Source: Csil

Note: 388 respondents; 11 missing.

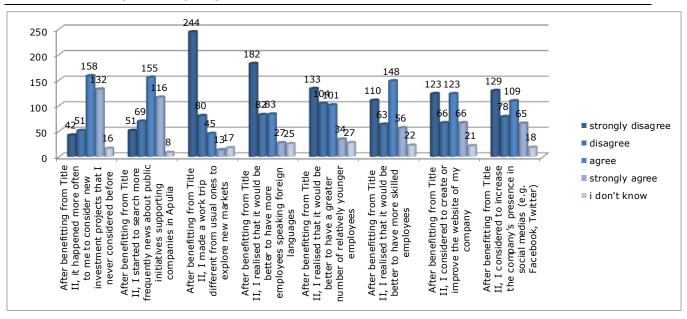
Figure 58. F2 - Please indicate your degree of agreement with the following statements (first part)



Source: Csil

Note: Answer to questions F2.1; F2.2; F2.3; F2.4.

Figure 59. F2 - Please indicate your degree of agreement with the following statements (second part)

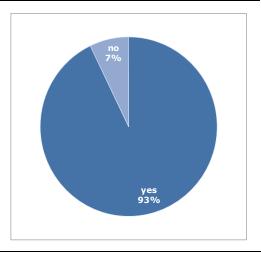


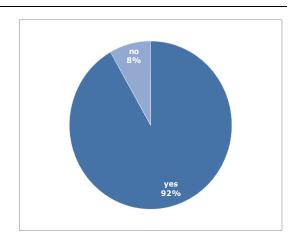
Note: Answer to questions F2.5; F2.6; F2.7; F2.8; F2.9; F2.10; F2.11; F2.12.

Section G: Final consideration

Figure 60. G1 Was the instrument tailored to your expectations?

Figure 61. G2 Did the instrument contribute to the growth and development of your enterprise?

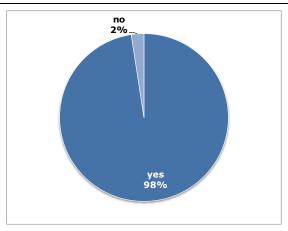




Source: Csil

Note: 399 respondents.

Figure 62. G4 Do you think that this instrument should be replicated in the future?



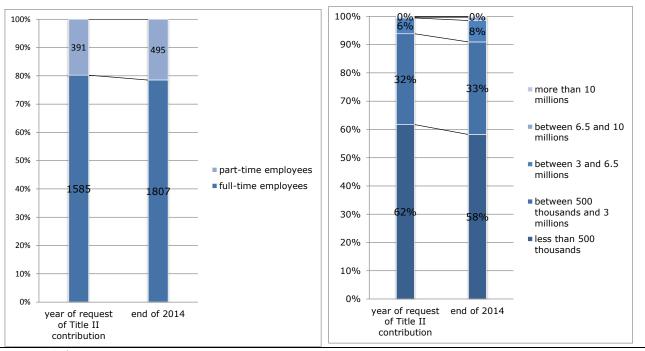
Source: Csil

Note: 399 respondents.

The results in this section show the general entrepreneurs' approval of the investment project. Indeed, more than 90% of the respondents think that the projects fulfilled their expectations, contributed to the growth of their enterprise and should be replicated in the future.

Section H: Additional information about the enterprise

Figure 63. H1 - Number of people Figure 64. H2 - Amount of employed except for the owner turnover/annual sales (paid or not)

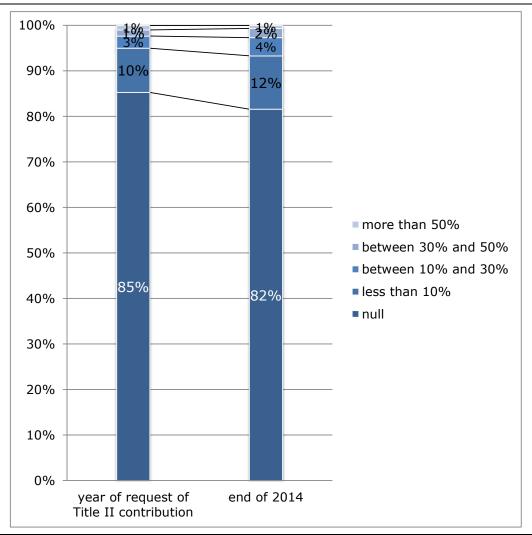


Source: Csil

Note Fig. 63: 231 respondents "full-time; year of request of title II"; 230 respondents "full-time; end of 2014"; 162 respondents "part-time; year of request of title II"; 175 respondents "part-time; end of 2014".

Note Fig. 64: 342 respondents; 57 missing.

Figure 65. H3 - Share of exports on total sales



Note: 299 respondents; 100 missing.

2.4. Results of econometric regressions

Table 17. Descriptive Statistics Apulia

| VARIABLES | | N | mean | sd | min | max |
|--|---|--------------------------|---------------------------------|----------------------------------|-------------------------|-------------------------|
| Type of change variables | | | | | | |
| D1.1 New activity | See questionnaire | 399 | 0.090 | 0.286 | 0 | 1 |
| D1.2 Widened products/services | See questionnaire | 399 | 0.390 | 0.488 | 0 | 1 |
| D1.3 Improved existing prod/ser | See questionnaire | 399 | 0.511 | 0.500 | 0 | 1 |
| D1.4 Productivity improvement | See questionnaire | 399 | 0.311 | 0.300 | 0 | 1 |
| D1.5 Efficiency improvement | See questionnaire | 399 | 0.343 | 0.473 | 0 | 1 |
| | - | | | | 0 | |
| D1.6 New products/services | See questionnaire | 399 | 0.075 | 0.264 | | 1 |
| D1.7 New sales channels | See questionnaire | 399 | 0.052 | 0.223 | 0 | 1 |
| D1.8 Company more popular | See questionnaire | 399 | 0.253 | 0.435 | 0 | 1 |
| O1.9 Improved spaces | See questionnaire | 399 | 0.298 | 0.458 | 0 | 1 |
| 01.10 Working area nicer | See questionnaire | 399 | 0.273 | 0.446 | 0 | 1 |
| D1.12 Improved work organisation | See questionnaire | 399 | 0.360 | 0.480 | 0 | 1 |
| D1.13 Improved safety | See questionnaire | 399 | 0.228 | 0.420 | 0 | 1 |
| D1.14 Compliance with regulations | See questionnaire | 399 | 0.102 | 0.304 | 0 | 1 |
| D1.15 Environmental impact | See questionnaire | 399 | 0.117 | 0.322 | 0 | 1 |
| D1.16 Energy consumption | See questionnaire | 399 | 0.130 | 0.337 | 0 | 1 |
| D1.17 Improved Employees skills | See questionnaire | 399 | 0.090 | 0.286 | 0 | 1 |
| D1.18 Hiring new employees | See questionnaire | 399 | 0.218 | 0.413 | 0 | 1 |
| D1.19 Maintaining same employees | See questionnaire | 399 | 0.117 | 0.322 | 0 | 1 |
| C1 Purchasing high tech assets | See questionnaire | 399 | 0.293 | 0.455 | 0 | 1 |
| O1 New activity and/or imp existing | See questionnaire | 399 | 0.000 | 1.139 | -3.639 | 3.219 |
| D1 New products and new channels | Principal | 399 | 0.000 | 1.328 | -4.775 | 4.897 |
| | Component Analysis (PCA) | | | | | |
| D1 Work organisation | PCA | 399 | 0.000 | 1.241 | -3.863 | 4.307 |
| D1 New employees and productivity | PCA | 399 | 0.000 | 1.125 | -5.209 | 4.717 |
| D1 Safety, energy and envy impact | PCA | 399 | 0.000 | 1.897 | -2.424 | 7.213 |
| O1 Increase skills current employees and reducing | PCA | 399 | 0.000 | 1.045 | -3.764 | 12.55 |
| heir number | | | | | | |
| Economic Results | | | | | | |
| D2.1 Increase Sales | See questionnaire | 398 | 2.585 | 1.019 | 0 | 5 |
| D2.5 Decrease Costs | See questionnaire | 398 | 2.007 | 1.065 | 0 | 5 |
| D2.6 Resilience to crisis | See questionnaire | 398 | 2.447 | 1.076 | Ö | 5 |
| D2.7 Increase Income | See questionnaire | 399 | 2.122 | 1.011 | Ö | 5 |
| Employment growth (in FTE) | Our elaboration | 241 | 0.241 | 0.819 | -1 | 1 |
| imployment grower (iii + 12) | based on questions | | 0.2.12 | 0.013 | - | - |
| | H1 of the | | | | | |
| | questionnaire | | | | | |
| Behavioural Changes | questionnune | | | | | |
| -2.2 Opinion PugliaSviluppo | See questionnaire | 399 | 3.669 | 1.224 | 1 | 5 |
| F2.4 Opinion EU | See questionnaire | 399 | 3.912 | 1.088 | 1 | 5 |
| F2.5 New Investment | See questionnaire | 399 | 3.719 | 1.324 | 1 | 5 |
| 72 Trust in supporting Institutions | PCA | 399 | 0.000 | 1.631 | -4.42 | 2.07 |
| Opinion Application Issues | FCA | 399 | 0.000 | 1.051 | -4.42 | 2.07 |
| E2.1 Support from the bank | See guestionnaire | 399 | 3.318 | 1.218 | 1 | 5 |
| | • | 399 | | 1.109 | 1 | 5 |
| E2.2 Support from the accountant/consultant | See questionnaire | | 3.809 | | | |
| E2.3 Support from PugliaSviluppo | See questionnaire | 399 | 3.566 | 1.086 | 1 | 5 |
| E2.4 Simplicity of documents | See questionnaire | 399 | 2.744 | 1.188 | 1 | 5 |
| 2.5 Time required to get endorsement | See questionnaire | 399 | 2.764 | 1.225 | 1 | 5 |
| E2.6 Simplicity of the reporting process | See questionnaire | 399 | 2.819 | 1.193 | 1 | 5 |
| E2.7 Time required for the documents | See questionnaire | 399 | 2.759 | 1.208 | 1 | 5 |
| E3 Future application | See questionnaire | 399 | 1.120 | 0.481 | 0 | 2 |
| | | | | | | |
| Project Characteristics | | | | | | |
| Project Characteristics Number of agreements signed | Number of projects | 399 | 1.215 | 0.711 | 1 | 8 |
| Number of agreements signed | funded by Title II | | | | | |
| | funded by Title II Logarithmic value of | 399 399 | 1.215 10.41 | 0.711 0.918 | 1 8.436 | |
| Number of agreements signed | funded by Title II | | | | | |
| Number of agreements signed | funded by Title II Logarithmic value of | | 10.41 | 0.918 | | |
| Number of agreements signed | funded by Title II Logarithmic value of total public | | | | | 13.58 |
| Number of agreements signed OP Support (log) | funded by Title II Logarithmic value of total public contribution | 399 | 10.41 | 0.918 | 8.436 | 13.58 |
| Number of agreements signed OP Support (log) | funded by Title II Logarithmic value of total public contribution Year of start of the | 399 | 10.41 | 0.918 | 8.436 | 13.58 |
| Number of agreements signed OP Support (log) Agreement year Beneficiary Characteristics | funded by Title II Logarithmic value of total public contribution Year of start of the project | 399 391 | 10.41 2011 | 0.918 1.558 | 8.436 2009 | 13.58 2014 |
| Number of agreements signed OP Support (log) Agreement year Beneficiary Characteristics A6 Entrepreneur education | funded by Title II Logarithmic value of total public contribution Year of start of the project See questionnaire | 399 391 399 | 10.41 2011 1.869 | 0.918 1.558 0.731 | 8.436 2009 | 13.58 2014 5 |
| Number of agreements signed OP Support (log) Agreement year Beneficiary Characteristics A6 Entrepreneur education 32 Public support before 09 | funded by Title II Logarithmic value of total public contribution Year of start of the project See questionnaire See questionnaire | 399 391 399 399 | 10.41 2011 1.869 0.380 | 0.918 1.558 0.731 0.516 | 8.436 2009 1 0 | 13.58 2014 5 2 |
| Number of agreements signed OP Support (log) Agreement year Beneficiary Characteristics A6 Entrepreneur education | funded by Title II Logarithmic value of total public contribution Year of start of the project See questionnaire | 399 391 399 | 10.41 2011 1.869 | 0.918 1.558 0.731 | 8.436 2009 | 13.58 2014 5 |

enterprises with 0-9 employees Dummy for 399 0.370 enterprises with 10-

49 employees 399 1.817 0.838 1

0.484

0

1

Source: Csil.

Size small

Category

Note: The Table shows summary statistics of the variables used in the Apulia case study. The variables labelled with D1 without the second digit and the variable 'F2 trust in supporting Institutions' are expressed in principal components. The variable Employment growth in FTE (Full Time Equivalent) takes on 3 values: -1 if the employment in FTE a given firm is decreased in the period; 0 if remained constant and 1 if it decreased.

Table 18. Ordered Logit Estimates: Economic Performance

| Dependent Variable is | D2.1 Increase Sales | | D2.5 Decrease Costs | | D2.6 Resilience to crises | | D2.7 Inco | | Employemt growth (in FTE)* | |
|--|------------------------------------|--------------------------------------|-------------------------------|--------------------------------------|----------------------------------|--------------------------------------|---------------------------------|--------------------------------------|--|--------------------------------------|
| Variables | Coefficie nt | Std Err | Coeffici ent | Std Err | Coefficie nt | Std Err | Coeffic ient | Std Err | Coeffi cient | Std Err |
| Type of change varia | ables | | | | | | | | | |
| D1.1 New activity | 0.67 | (0.50) | 0.02 | (0.39) | 0.34 | (0.47) | 0.57* | (0.39) | 1.32* * | (0.52) |
| D1.2 Widened products/services | 0.78*** | (0.24) | 0.25 | (0.24) | 0.13 | (0.23) | 0.31* | (0.18) | -0.51 | (0.33) |
| D1.3 Improved existing prod/ser | -0.13 | (0.21) | 0.27 | (0.22) | 0.13 | (0.23) | 0.06 | (0.21) | 0.53* | (0.31) |
| D1.4 Productivity improvement | 0.64** | (0.25) | 0.50** | (0.24) | 0.33 | (0.26) | 0.37 | (0.23) | 0.59 | (0.36) |
| D1.5 Efficiency improvement | -0.05 | (0.28) | 1.25*** | (0.29) | 0.59* | (0.35) | 0.44 | (0.27) | 0.41 | (0.40) |
| D1.6 New products/services | 0.66 | (0.58) | 0.26 | (0.42) | 0.49 | (0.58) | -0.20 | (0.56) | -0.49 | (0.59) |
| D1.7 New sales channels | 0.22 | (0.39) | -0.54 | (0.49) | -0.52 | (0.74) | 0.56** | (0.25) | 0.19 | (0.71) |
| D1.8 Company more popular | 0.49* | (0.27) | - 1.00*** | (0.29) | 0.60** | (0.31) | 0.01 | (0.25) | 0.44 | (0.38) |
| D1.9 Improved | -0.55** | (0.24) | 0.79*** | (0.26) | -0.84*** | (0.27) | - 0.71** | (0.28) | -0.24 | (0.36) |
| spaces D1.10 Working area nicer | -0.02 | (0.28) | -0.37 | (0.26) | -0.11 | (0.30) | -0.07 | (0.30) | 0.42 | (0.43) |
| D1.12 Improved work organization | -0.18 | (0.23) | 0.43* | (0.24) | -0.11 | (0.23) | -0.29 | (0.21) | -0.12 | (0.36) |
| D1.13 Improved safety | 0.47 | (0.30) | -0.22 | (0.34) | 0.19 | (0.30) | 0.20 | (0.25) | -0.03 | (0.40) |
| D1.14 Compliance with regulations | 0.22 | (0.38) | -0.71* | (0.37) | -0.08 | (0.44) | 0.10 | (0.35) | 0.72 | (0.54) |
| D1.15 Environmental impact | -0.38 | (0.33) | 0.62* | (0.34) | -0.39 | (0.44) | -0.18 | (0.38) | -0.43 | (0.45) |
| D1.16 Energy consumption | -0.29 | (0.32) | 1.07*** | (0.30) | 0.78** | (0.35) | 0.08 | (0.30) | 0.55 | (0.35) |
| D1.17 Improved employees skills | -0.62* | (0.36) | 0.10 | (0.34) | -0.47 | (0.40) | -0.43 | (0.36) | 1.06* | (0.48) |
| D1.18 Hiring new employees | 0.60** | (0.29) | -0.29 | (0.27) | 0.74** | (0.29) | 0.64** | (0.29) | 1.49* ** | (0.55) |
| D1.19 Maintaining same employees | -0.06 | (0.31) | 0.56* | (0.33) | 0.66* | (0.36) | 0.06 | (0.36) | 0.43 | (0.49) |
| C1 Purchasing high tech assets | -0.06 | (0.23) | 0.75*** | (0.23) | 0.26 | (0.25) | 0.51** | (0.25) | 0.36 | (0.29) |
| Project Characteristics | | | | | | | | | | |
| Number of agreements signed | 0.43 | (0.28) | 0.49* | (0.26) | 0.50* | (0.30) | 0.29 | (0.30) | 0.01 | (0.40) |
| OP Support Agreement year | 0.27* 0.00 | (0.15) (0.07) | -0.03 0.02 | (0.15) (0.07) | -0.01 0.02 | (0.14) (0.07) | -0.22 -0.01 | (0.16) (0.06) | 0.31* -0.02 | (0.18) (0.08) |
| Beneficiary Characteristics | | () | | (5151) | | (====, | | (5155) | | (2.22) |
| A6 Entrepreneur education | 0.06 | (0.14) | -0.07 | (0.15) | 0.11 | (0.14) | 0.22 | (0.15) | -0.17 | (0.17) |
| B2 Public support before 09 | -0.24 | (0.21) | -0.21 | (0.21) | 0.42** | (0.22) | 0.05 | (0.21) | 0.11 | (0.29) |
| C3 Other investment support | 0.11 | (0.22) | -0.27 | (0.21) | 0.19 | (0.23) | -0.22 | (0.22) | 0.17 | (0.30) |
| NACE Manufacturing Construction Wholesale and Retail Accommodation | 0.31 -0.74* -0.09 1.30*** | (0.34) (0.40) (0.34) (0.39) | 0.49* 0.55 0.37 0.52 | (0.29) (0.41) (0.34) (0.39) | 0.75** 0.22 0.32 1.03** | (0.33) (0.37) (0.35) (0.41) | 0.23 0.56 -0.11 1.00** | (0.33) (0.38) (0.32) (0.43) | 0.79* -0.03 -0.02 1.42* ** | (0.41) (0.57) (0.42) (0.53) |

| SIZE | | | | | | | | | | |
|-------------------------------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Micro enterprises CATEGORY | 0.17 | (0.30) | 0.20 | (0.29) | -0.06 | (0.27) | 0.04 | (0.29) | -0.42 | (0.38) |
| Craft | 0.11 | (0.28) | -0.11 | (0.27) | 0.76*** | (0.26) | -0.11 | (0.25) | 0.51 | (0.35) |
| Commerce | 0.59* | (0.34) | 0.40 | (0.30) | 0.80*** | (0.31) | 0.10 | (0.31) | 0.27 | (0.41) |
| NUTS 3 | 0.04 | (0.10) | 0.09 | (0.06) | -0.00 | (0.05) | 0.01 | (0.11) | 0.42 | (0.38) |
| $	au_1$ | 0.33 | (3.56) | 0.35 | (1.41) | 0.96 | (1.41) | -0.27 | (1.30) | -0.31 | (1.67) |
| $	au_2$ | 0.53 | (3.56) | 0.38 | (1.41) | 0.99 | (1.41) | -0.24 | (1.30) | -0.29 | (1.67) |
| $	au_3$ | 0.67 | (3.56) | 0.40 | (1.41) | 0.10 | (1.41) | -0.23 | (1.30) | | |
| $	au_4$ | 0.92 | (3.56) | 0.42 | (1.41) | 0.12 | (1.41) | -0.21 | (1.30) | | |
| $	au_5$ | 1.10 | (3.56) | 0.43 | (1.41) | 0.14 | (1.41) | -0.19 | (1.30) | | |
| Observations | 391 | | 391 | | 391 | | 391 | | 241 | |
| Log Likelihood | -498.0 | | -498.2 | | -524.9 | | -521.3 | | -210.6 | |
| McFadden's R2 | 0.076 | | 0.084 | | 0.062 | | 0.036 | | 0.112 | |
| Likelihood ratio test | 89.32 | | 101.0 | | 71.69 | | 38.33 | | 49.52 | |

Note: * FTE (Full Time Equivalent). The dep. variable is an ordered variable that takes on 3 values: -1 if employments in FTE is decreased in the period under investigation; 0 if remained constant and 1 if it is increased. Table shows the determinants of the economic performance of interviewed SMEs in Apulia. The missing dummies in the variable NACE, SIZE and CATEGORY are respectively 'other sectors', Small firms and 'others categories'. Robust standard errors are reported in parentheses*** , ** , * denote significance at the 1% , 5% 10% respectively.

Table 19. Ordered Logit Estimates: Behavioural Changes

| Dependent Variable is | F2.2 Opi Puglia Svi | | F2.5 New I | nvestment | |
|--|------------------------|---------|-----------------|-----------------|--|
| Variables | Coefficient | | Coefficient | Std Err | |
| Variables Type of change variables | Coefficient | Std Err | Coefficient | Stu Eff | |
| D1 New activity and/or imp existing | -0.06 | (0.09) | -0.05 | (0.09) | |
| D1 New products and new channels | -0.11 | (0.11) | 0.12 | (0.09) | |
| D1 Work organisation | -0.11 | (0.11) | 0.12 | (0.11) | |
| D1 New employees and productivity | 0.00 | (0.10) | 0.13 | (0.11) | |
| D1 Safety, energy and envy impact | -0.02 | (0.05) | 0.09 | (0.09) | |
| D1.Increase skills current employees | -0.02 | (0.03) | -0.12 | (0.00) | |
| | -0.03 | (0.09) | -0.12 | (0.09) | |
| and reducing their number C1 Purchasing high tech assets | 0.06 | (0.25) | -0.15 | (0.25) | |
| Economic results and other behavioural | 0.06 | (0.25) | -0.15 | (0.25) | |
| | | | | | |
| changes | 1 20*** | (0.12) | | | |
| F2.4 Opinion EU | 1.29*** | (0.13) | 0.16 | (0.12) | |
| D2.1 Increase sales | 0.16 | (0.16) | 0.16 | (0.13) | |
| D2.5 Decrease costs | 0.16 | (0.12) | 0.17 | (0.13) | |
| D2.6 Resilience to crisis | 0.16 | (0.13) | 0.23* | (0.13) | |
| D2.7 Increase income | -0.06 | (0.15) | 0.16 | (0.14) | |
| Project Characteristics | | | | | |
| Number of agreements signed | -0.38 | (0.30) | -0.03 | (0.27) | |
| OP Support | 0.20* | (0.12) | 0.15 | (0.15) | |
| Agreement year | 0.08 | (0.07) | 0.13* | (0.07) | |
| Beneficiary Characteristics | | | | | |
| A6 Entrepreneur education | -0.10 | (0.15) | 0.18 | (0.15) | |
| B2 Public support before 09 | 0.48** | (0.22) | -0.17 | (0.20) | |
| C3 Other investment support | -0.15 | (0.24) | 0.09 | (0.21) | |
| NACE | | | | | |
| Manufacturing | 0.50 | (0.35) | -0.19 | (0.34) | |
| Construction | 0.46 | (0.44) | -0.24 | (0.37) | |
| Wholesale and Retail | 0.57 | (0.38) | -0.55 | (0.36) | |
| Accommodation | 0.64 | (0.41) | -0.10 | (0.37) | |
| SIZE | | | | | |
| Micro enterprises | -0.02 | (0.29) | 0.18 | (0.28) | |
| CATEGORY | | , , | | , , | |
| Craft | 0.20 | (0.31) | -0.41 | (0.28) | |
| Commerce | 0.13 | (0.35) | -0.56* | (0.33) | |
| NUTS 3 | -0.09 | (0.07) | -0.02 | (0.05) | |
| τ_1 | 1.67 | (1.42) | 2.94** | (1.41) | |
| $	au_2$ | 1.69 | (1.42) | 2.95** | (1.41) | |
| $	au_2$ | 1.69 | (1.42) | 2.95** | (1.41) | |
| | 1.72 | (1.42) | 2.97** | (1.41) (1.41) | |
| $	au_4$ Observations | 391 | (1.74) | 391 | (1.41) | |
| | -391.8 | | -492.6 | | |
| Log Likelihood McFadden's R2 | 0.198 | | -492.6 0.058 | | |
| | | | | | |
| Likelihood ratio test | 166.7 | | 46.43 | | |

Table shows the determinants of behavioural changes of interviewed SMEs in Apulia. The types of changes caused by the investment project are expressed in principal components (see Box 2, Vol I, in the Chapter dedicated to Apulia). The missing dummies in the variable NACE, SIZE and CATEGORY are respectively 'other sectors', Small firms and 'others categories'. Robust standard errors are reported in parentheses*** , ** , * denote significance at the 1% , 5% 10% respectively.

Table 20. Multinomial Logit Estimates. Marginal Effects

| Dependent Variable E3. Future Application | (1) | | (2) | |
|--|---------------------|---------|--------------|---------|
| Base Outcome ("I do Not Know") | 'I do not think so' | | 'I think so' | |
| Variables | Coefficient | Std Err | Coefficient | Std Err |
| Type of change variables | | | | |
| D1 New activity and/or imp existing | -0.01 | (0.01) | 0.00 | (0.02) |
| D1 New products and new channels | -0.00 | (0.01) | 0.00 | (0.02) |
| D1 Work organisation | -0.00 | (0.01) | -0.00 | (0.02) |
| D1 New employees and productivity | -0.01 | (0.01) | 0.00 | (0.02) |
| D1 Safety, energy and envy impact | -0.01 | (0.01) | 0.02* | (0.01) |
| D1 Increase skills current employees | 0.00 | (0.01) | -0.02 | (0.02) |
| and reducing their number | | | | |
| C1 Purchasing high tech assets | 0.06 | (0.04) | -0.11** | (0.04) |
| Economic Results and other behavioural changes | | | | |
| F2 Trust in supporting Institutions | 0.00 | (0.01) | -0.02 | (0.02) |
| F2.5 New Investment | -0.02* | (0.01) | 0.10*** | (0.02) |
| D4.1 Increase Sales | 0.01 | (0.02) | 0.00 | (0.02) |
| D4.5 Decrease Costs | 0.01 | (0.01) | 0.01 | (0.02) |
| D4.6 Resilience to crisis | -0.02 | (0.02) | -0.01 | (0.02) |
| D4.7 Increase income | -0.01 | (0.02) | 0.02 | (0.02) |
| Opinion Application Issues | | . , | | , , |
| E2.1 Support from the bank | -0.01 | (0.01) | -0.02 | (0.02) |
| E2.2 Support from the accountant/consultant | -0.00 | (0.01) | 0.04*** | (0.02) |
| E2.3 Support from Puglia Sviluppo | -0.05*** | (0.01) | 0.08*** | (0.02) |
| E2.4 Simplicity of documents | 0.01 | (0.02) | 0.01 | (0.02) |
| E2.5 Time required to get endorsement | 0.01 | (0.01) | -0.01 | (0.02) |
| E2.6 Simplicity of the reporting process | -0.02 | (0.02) | 0.01 | (0.03) |
| E2.7 Time required for the documents | 0.01 | (0.01) | 0.02 | (0.03) |
| Project Characteristics | | , | | , |
| Agreements signed | -0.03 | (0.04) | 0.08 | (0.07) |
| OP Support | -0.01 | (0.01) | 0.03 | (0.02) |
| Agreement year | 0.00 | (0.01) | 0.03** | (0.01) |
| Beneficiary Characteristics | | | | |
| A5 Entrepreneur education | -0.02 | (0.02) | 0.05* | (0.03) |
| B2 Public support before 09 | -0.07 | (0.16) | 0.27* | (0.16) |
| C3 Other investment support | 0.01 | (0.03) | 0.02 | (0.04) |
| NACE | | | | |
| Manufacturing | -0.02 | (0.03) | -0.04 | (0.07) |
| Construction | -0.08*** | (0.02) | -0.01 | (0.08) |
| Wholesale and Retail | -0.03 | (0.03) | -0.07 | (0.07) |
| Accommodation | -0.05*** | (0.02) | -0.12 | (0.08) |
| SIZE | | | | |
| Micro enterprises | -0.05 | (0.04) | -0.01 | (0.05) |
| CATEGORY | | | -0.72 | (0.90) |
| Craft | 0.02 | (0.04) | -0.06 | (0.05) |
| Commerce | -0.04 | (0.03) | -0.04 | (0.06) |
| NUTS 3 | 0.00 | (0.03) | -0.04 | (0.06) |
| Observations | 391 | | | |
| Log Likelihood | -133.8 | | | |
| McFadden's R2 | 0.509 | | | |
| Likelihood ratio test | 271.0 | | | |

Table shows the determinants of the probability of applying again in the future (1) and not applying again in the future (2) The base outcome of the multinomial logit model is the group of firms that choose 'I do not know' to the question E3. The types of changes (D1) are expressed in principal components. (see Box 2, Vol I, in the Chapter dedicated to Apulia). The missing dummy for the variables NACE, SIZE and CATEGORY are respectively 'other sectors', 'small enterprise' and 'other categories'. Standard errors are reported in parenthesis ***, **, * denote significance at the 1%, 5%, 10%.

Table 21. Logit Estimates, Apulia

| Dep. variable is | (1) D1.1 New | activity | (2) D1.1 activ | New | (1) D1.2 \ prod/ | | (2) D1.2 prod | Wid /ser | (1) D1.18 emplo | | (2) D1.18 emplo | Hiring | (1) D1.19 5 empl | | (2) D1. Same 6 | |
|-----------------------|-----------------|----------|----------------------|--------|------------------------|--------|---------------------|-------------|-----------------------|--------|-----------------------|--------|------------------------|--------|----------------------|--------|
| Variables | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se |
| Type of change | | | | | | | | | | | | | | | | |
| D1.1 New activity | | | | | 1.45*** | (0.55) | | | 1.78*** | (0.60) | | 0.56 | (1.51) |) | | |
| D1.2 Wid prod/servi | -1.42** | (0.63) | | | | | | | 1.12*** | (0.34) | | | 1.48*** | (0.49) | | |
| D1.3 Imp prod/servi | -1.98*** | (0.59) | | | 0.49* | (0.26) | | | -0.08 | (0.40) | | | 0.37 | (0.47) | | |
| D1.4 Productivity imp | -2.25** | (0.88) | | | -0.14 | (0.29) | | | 1.31*** | (0.41) | | | 0.79 | (0.52) | | |
| D1.5 Efficiency imp | - | | | | 0.34 | (0.35) | | | -0.06 | (0.49) | | | -0.64 | (0.58) | | |
| D1.6 New prod/serv | 0.35 | (1.61) | | | 1.72*** | (0.60) | | | -0.26 | (0.60) | | | 0.17 | (0.78) | | |
| D1.7 New channels | -1.44 | (1.15) | | | -0.60 | (0.70) | | | -0.25 | (0.91) | | | -2.10** | (0.97) | | |
| D1.8 Popu company | -0.05 | (0.67) | | | 1.19*** | (0.31) | | | 1.38*** | (0.38) | | | 0.94** | (0.45) | | |
| D1.9 Improv spaces | -0.96 | (0.60) | | | -0.02 | (0.32) | | | 0.50 | (0.44) | | | 0.52 | (0.74) | | |
| D1.10 Nice workplace | -0.96 | (0.75) | | | -0.36 | (0.36) | | | 0.62 | (0.46) | | | 1.03 | (0.74) | | |
| D1.12 Imp organisat | -2.13*** | (0.63) | | | -0.68** | (0.29) | | | 0.79** | (0.39) | | | 0.45 | (0.55) | | |
| D1.13 Improv safety | -3.11 | (2.37) | | | 0.01 | (0.36) | | | 0.25 | (0.46) | | | 0.46 | (0.64) | | |
| D1.14 Compliance | 1.42 | (2.20) | | | 0.37 | (0.46) | | | 1.08** | (0.54) | | | 1.12* | (0.67) | | |
| D1.15 Enviro impact | 2.38* | (1.43) | | | -0.25 | (0.46) | | | 0.30 | (0.53) | | | 1.09 | (0.72) | | |
| D1.16 Energy consu | -1.66 | (1.30) | | | -0.20 | (0.40) | | | 0.17 | (0.54) | | | 0.58 | (0.69) | | |
| D1.17 Employ skills | 2.68 | (1.93) | | | 0.22 | (0.46) | | | 1.66*** | (0.64) | | | 2.28*** | (0.58) | | |
| D1.18 Hiring emplo | 2.43*** | (0.55) | | | 1.23*** | (0.35) | | | | | | | -8.11*** | (2.36) | | |
| D1.19 Same emplo | -1.94 | (2.83) | | | 0.96** | (0.40) | | | -6.03*** | (1.71) | | | | | | |
| C1 High tech assets | 1.13** | (0.55) | | | 0.25 | (0.28) | | | -0.35 | (0.36) | | | -0.42 | (0.50) | | |
| Project | | | | | | | | | | | | | | | | |
| Characteristics | | | | | | | | | | | | | | | | |
| Num of agreements | -0.43 | (0.85) | -0.87 | (0.73) | 0.16 | (0.33) | 0.30 | (0.28) | 0.20 | (0.40) | 0.12 | (0.31) | 0.40 | (0.44) | -0.04 | (0.38) |
| Agreement year | 0.26 | (0.18) | 0.23* | (0.12) | -0.04 | (0.08) | 0.00 | (0.07) | 0.05 | (0.11) | -0.03 | (0.09) | 0.01 | (0.15) | 0.06 | (0.12) |
| Op support (log) | 0.54 | (0.36) | 0.61** | (0.26) | -0.02 | (0.18) | 0.04 | (0.14) | 0.67** | (0.27) | 0.50*** | (0.19) | 0.74*** | (0.26) | 0.48** | (0.21) |
| Beneficiary | | | | | | | | | | | | | | | | |
| Characteristics | | | | | | | | | | | | | | | | |
| A6 Entrep education | -0.19 | (0.28) | -0.12 | (0.26) | 0.30* | (0.17) | 0.32** | (0.15) | -0.21 | (0.24) | -0.13 | (0.17) | -0.20 | (0.28) | -0.02 | (0.22) |
| B2 Support before | 0.03 | (0.55) | -0.09 | (0.44) | 0.63** | (0.26) | 0.45** | (0.23) | -0.65* | (0.36) | -0.37 | (0.28) | -0.78 | (0.50) | -0.07 | (0.35) |
| C3 Other Investment | -0.23 | (0.57) | -0.18 | (0.47) | -0.73*** | (0.27) | -0.26 | (0.24) | 0.91** | (0.39) | 0.72** | (0.29) | 1.30** | (0.57) | 0.34 | (0.35) |
| NACE | | | | | | | | | | | | | | | | |
| Manufacturing | -2.30* | (1.24) | -1.16* | (0.69) | 0.20 | (0.45) | 0.24 | (0.32) | 1.59** | (0.77) | 0.94** | (0.48) | -0.92 | (0.61) | -1.08** | (0.47) |
| Construction | -4.15*** | (1.50) | -1.50 | (1.12) | -0.78 | (0.51) | -0.88** | (0.44) | 1.58 | (0.98) | 0.31 | (0.61) | -0.19 | (0.79) | -0.79 | (0.74) |
| Whole and Retail | 1.00 | (0.99) | 0.83 | (0.58) | 0.65 | (0.61) | 0.34 | (0.51) | 0.25 | (0.89) | -0.41 | (0.74) | 0.64 | (0.95) | 0.37 | (0.68) |
| Accomodation | 0.73 | (1.03) | 0.87 | (0.60) | -0.18 | (0.65) | -0.37 | (0.56) | 0.50 | (0.87) | -0.12 | (0.85) | 1.21 | (1.11) | 0.53 | (0.74) |
| SIZE | | | | | | | | | | | | | | | | |
| Micro | 2.51** | (1.13) | 0.83 | (0.54) | -0.07 | (0.35) | 0.12 | (0.30) | (0.20) | (0.56) | 0.52 | (0.39) | 0.23 | (0.81) | 0.08 | (0.49) |
| | | | | | | | | | | | | | | | | |

| CATEGORY | | | | | | | | | | | | | | | | |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Craft | 0.81 | (1.01) | -0.05 | (0.73) | 0.62* | (0.34) | 0.58** | (0.29) | 0.36 | (0.52) | 0.78** | (0.40) | 0.14 | (0.52) | 0.21 | (0.44) |
| Commerce | 2.07** | (0.94) | 0.29 | (0.99) | 0.24 | (0.41) | 0.32 | (0.32) | 1.22** | (0.58) | 1.53*** | (0.40) | 0.55 | (0.63) | 0.50 | (0.46) |
| NUTS 3 | 0.09 | (0.12) | 0.11 | (0.10) | 0.02 | (0.06) | 0.04 | (0.06) | -0.14 | (0.08) | -0.07 | (0.06) | 0.19 | (0.12) | 0.10 | (0.09) |
| Constant | 0.47 | (0.42) | 1.03* | (0.57) | 0.55 | (0.56) | 1.13 | (3.09) | -1.96 | (1.92) | 5.34 | (4.28) | -5.36 | (4.50) | -3.34 | (4.70) |
| | | | | | | | | | | | | | | | | |
| Observations | 388 | | 388 | | 388 | | 388 | | 388 | | 388 | | 388 | | 388 | |
| Log Likelihood | -62.13 | | -100.7 | | -204.5 | | -247.7 | | -122.2 | | -186.3 | | -82.83 | | -132.9 | |
| McFadden's R2 | 0.436 | | 0.140 | | 0.200 | | 0.030 | | 0.397 | | 0.081 | | 0.402 | | 0.041 | |
| Likelihood ratio test | 80.51 | | 35.41 | | 93.78 | | 15.30 | | 85.79 | | 29.07 | | 88.66 | | 14.45 | |

Note: the Table shows the determinants of the probability of starting a new activity (D1.1), widening the range of products and services offered (D1.2), hiring new employees (D1.18) and keeping the same number of employees (D1.19). The missing dummies in the variable NACE, SIZE and CATEGORY are respectively 'other sector', small firms and 'other categories'. Robust standard errors are reported in parentheses ***,**,* denote significance at 1%, 5%, 10% respectively.

2.5. Analysis of aid intensity

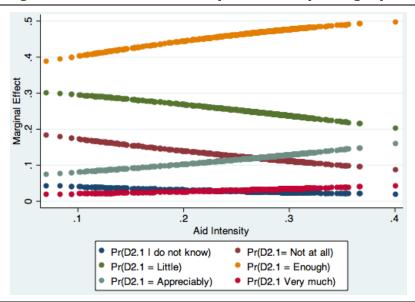
Table 22. Ordered logit Estimates. Effect of Aid Intensity on Sales

| Dep. Variable | (1) | (2) |
|-----------------------|----------|--------|
| D2.1 Increased Sales | • • | • • |
| VARIABLES | coef | se |
| Aid_Intensity | 2.76* | (1.47) |
| Constant 1 | -2.95*** | (0.48) |
| Constant 2 | -1.06*** | (0.39) |
| Constant 3 | 0.28 | (0.38) |
| Constant 4 | 2.50*** | (0.40) |
| Constant 5 | 4.24*** | (0.49) |
| Observations | 387 | |
| Log Likelihood | -542.5 | |
| McFadden's R2 | 0.00324 | |
| Likelihood ratio test | 3.522 | |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 66. Marginal Effect of Aid Intensity on Sales by Category



Source: Csil

Table 23. Marginal effect of aid intensity on Sales compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect (*100) |
|---------------|-----------------------|--------------------------------|
| I do not Know | 0.23 | -0.07 |
| Little | 0.24 | -0.31 |
| Not at all | 0.25 | -0.28 |
| Appreciably | 0.25 | 0.26 |
| Enough | 0.26 | 0.32 |
| Very much | 0.28 | 0.08 |

Figure 67. Marginal effect of aid intensity on Sales compared to the level of aid intensity, by category

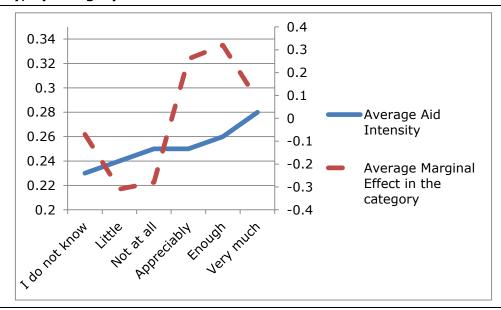


Table 24. Ordered Logit Estimates. Effect of Aid Intensity on Resilience to Crisis

| Dep. Variable D4.6 Resilience to Crisis | (1) | (2) | |
|--|----------|--------|--|
| VARIABLES | coef | se | |
| Aid_Intensity | 2.28 | (1.44) | |
| Constant 1 | -3.07*** | (0.47) | |
| Constant 2 | -0.80** | (0.38) | |
| Constant 3 | 0.52 | (0.38) | |
| Constant 4 | 2.49*** | (0.40) | |
| Constant 5 | 3.79*** | (0.45) | |
| Observations | 387 | | |
| Log Likelihood | -567.5 | | |
| McFadden's R2 | 0.00221 | | |
| Likelihood ratio test | 2.512 | | |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 68. Marginal Effect of Aid Intensity on Resilience to Crisis by Category

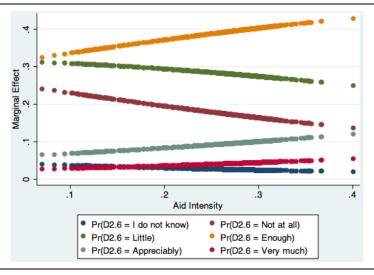


Table 25. Marginal effect of aid intensity on Resilience to Crisis compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect (*100) |
|---------------|------------------------------|--------------------------------|
| Not at all | 0.24 | -0.31 |
| Little | 0.25 | -0.20 |
| Enough | 0.25 | 0.31 |
| Appreciably | 0.26 | 0.17 |
| Very much | 0.26 | 0.09 |
| I do not know | 0.28 | -0.06 |

Source: Csil

Figure 69. Marginal effect of aid intensity on Resilience to Crisis compared to the level of aid intensity, by category

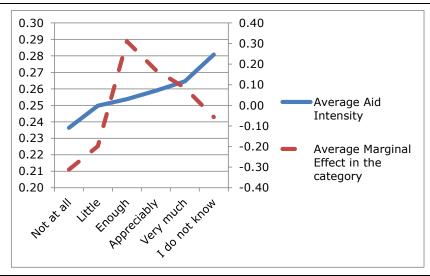
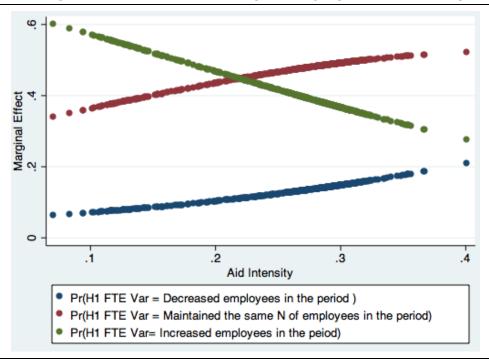


Table 26. Ordered logit Estimates. The effect of Aid Intensity on Employment growth (in FTE)

| Dep. Variable H1. Employment Growth | (1) | (2) | |
|--|----------|--------|--|
| VARIABLES | coef | se | |
| Aid Intensity | -4.18** | (2.00) | |
| Constant 1 | -3.02*** | (0.56) | |
| Constant 2 | -0.70 | (0.52) | |
| Observations | 247 | | |
| Log Likelihood | -240.5 | | |
| McFadden's R2 | 0.00918 | | |
| Likelihood ratio test | 4.454 | | |

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 70. Marginal Effect of Aid Intensity on Employment Growth by Category

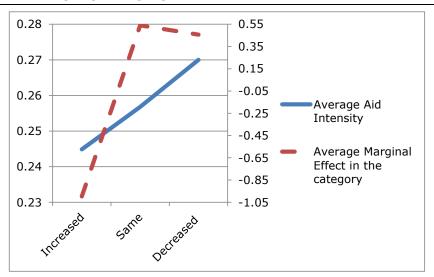


Source: Csil

Table 27. Marginal effect of aid intensity on Employment growth compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average (*100) | Marginal | Effect |
|-----------|-----------------------|-------------------|----------|--------|
| Increased | 0.24 | -0.31 | | |
| Same | 0.25 | -0.20 | | |
| Decreased | 0.25 | 0.31 | | |

Figure 71. Marginal effect of aid intensity on Employment growth compared to the level of aid intensity, by category



ANNEX 3. Survey to beneficiary SMEs of Castile and León: questionnaire and analysis of results

3.1. Questionnaire

QUESTIONNAIRE

This survey is addressed to enterprises located in Castile and Leon that implemented at least one R&D Project since 2007 and for which they received a grant by the Agencia de Inversiones y Servicios (ADE).

The aim of the survey is to collect information on the characteristics of the R&D investments supported by the regional agency, and the effects they had on beneficiaries.

Questions should be answered by the enterprise **owners or managing directors**, or in general **the entrepreneur (whatever his/her job description)** who is responsible for taking managerial, organisational and strategic decisions for the enterprise. They are not meant to be answered by the person responsible for the R&D project(s) under analysis.

The survey is carried out by CSIL (Centre for Industrial Studies) in collaboration with ADE. It is implemented in the framework of an evaluation study of the initiatives co-financed by the European Commission and the national and regional public authorities to support the growth and innovation of European Small-Medium enterprises.

The compilation of the questionnaire requires about 10 minutes. Your answers will be treated confidentially, will be statistically processed and results will be presented at aggregate level only in a report for the European Commission due by the end of October 2015.

For any request of clarification you can contact Silvia Pocorobba (<email address>).

Thanks for your cooperation!³

³ The asterisk '*' indicates the mandatory questions.

Section A: GENERAL INFORMATION

In this section we ask you some general information about your enterprise, with particular reference to the location and size.

Please consider that in case the enterprise is a subsidiary the questions are referred to the enterprise localised in Castile and Leon which has implemented the R&D project, and not to the group it belongs to.

A1. Enterprise name

| A2. Position of the respondent | |
|-----------------------------------|--|
| A3. Year of establishment of | |
| the enterprise | |
| A4. Age of the entrepreneur | |
| today * | |
| A5. Gender of the entrepreneur | □ Male |
| ennepreneor | □ Female |
| A6. Education attainment of | □ Primary education degree |
| the entrepreneur * | □ Secondary education degree |
| | □ Bachelor's degree or equivalent |
| | □ Master degree |
| | □ PhD |
| | □ Other - specify |
| A7. Is your enterprise part of | ☐ Yes, it is the parent enterprise |
| a group? * | ☐ Yes, it is a subsidiary → A7.1 |
| If A7 = "Yes, it is a subsidiary" | □ No □ Same province |
| If A7 = Tes, it is a substainty | Same region (Castile and Leon) |
| A7.1. Where does the parent | □ Other regions in Spain |
| enterprise is located? | □ Europe |
| emerphise is localed. | □ Outside Europe |
| A8. Was your enterprise born | |
| as a spin-off from a university | □ Yes |
| or research/technological | □No |
| centre? * | |
| A9. Was your enterprise born | □ Yes |
| as a spin-off from another | □ No |
| enterprise * | |
| A10. In which sector does | ☐ MANUFACTURING (NON AGROFOOD) → A10.1. |
| your enterprise operate? * | □ AGROFOOD INDUSTRY \rightarrow A10.2. □ Construction \rightarrow A10.3. |
| | □ Services → A10.4. |
| | ☐ WHOLESALE AND RETAIL |
| | □ Turism (Accomodation and food service activities) |
| | |
| | |
| W 410 - #14 () | 10. Manufacture of roop products |
| If A10 = "Manufacturing (non | □ 10 - Manufacture of food products □ 11 - Manufacture of beverages |
| agrofood)" A10.1. Please specify | □ 12 - MANUFACTURE OF TOBACCO PRODUCTS |
| A 10.1. Flease specify | ☐ 13 - MANUFACTURE OF TEXTILES |
| | □ 14 - Manufacture of wearing apparel □ 15 - Manufacture of leather and related products |
| | ☐ 16 - MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK, EXCEPT FURNITURE; |
| | MANUFACTURE OF ARTICLES OF STRAW AND PLAITING MATERIALS |
| l | □ 17 - Manufacture of paper and paper products |

| | □ 18 - Printing and reproduction of recorded media |
|---------------------------------------|---|
| | □ 19 - Manufacture of coke and refined petroleum products |
| | \square 20 - Manufacture of chemicals and chemical products |
| | \square 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations |
| | \square 22 - Manufacture of Rubber and Plastics products |
| | \square 23 - Manufacture of other non-metallic mineral products |
| | \square 24 - Manufacture of basic metals |
| | \square 25 - Manufacture of fabricated metal products, except machinery and equipment |
| | \square 26 - Manufacture of computer, electronic and optical products |
| | □ 27 - MANUFACTURE OF ELECTRICAL EQUIPMENT |
| | ☐ 28 - MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C. |
| | □ 29 - MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS |
| | □ 30 - Manufacture of other transport equipment |
| | □ 31 - MANUFACTURE OF FURNITURE |
| | 32 - OTHER MANUFACTURING |
| | □ 33 - REPAIR AND INSTALLATION OF MACHINERY AND EQUIPMENT |
| If A 10 — "A !" | |
| If A10 = "Agrofood" | 01 - Crop and animal production, hunting and related service activities |
| A10.2. Please specify | 02 - FORESTRY AND LOGGING |
| -1, | 03 - FISHING AND AQUACULTURE |
| | □ 10 - Manufacture of food products |
| | □ 11 - MANUFACTURE OF BEVERAGES |
| If A10 = "Construction" | ☐ 41 - CONSTRUCTION OF BUILDINGS |
| A10.3. Please specify | □ 42 - CIVIL ENGINEERING |
| Aro.o. ricase speeling | □ 43 - SPECIALIZED CONSTRUCTION ACTIVITIES |
| | |
| If A10 = "Services" | J - INFORMATION AND COMMUNICATION |
| A10.4. Please specify | □ 58 - Publishing activities |
| , , , , , , , , , , , , , , , , , , , | \square 59 - Motion picture, video and television programme production, sound recording and |
| | MUSIC PUBLISHING ACTIVITIES |
| | \square 60 - Programming and broadcasting activities |
| | □ 61 - Telecommunications |
| | ☐ 62 - COMPUTER PROGRAMMING, CONSULTANCY AND RELATED ACTIVITIES |
| | □ 63 - Information service activities |
| | M - PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES |
| | 69 - LEGAL AND ACCOUNTING ACTIVITIES |
| | □ 70 - ACTIVITIES OF HEAD OFFICES; MANAGEMENT CONSULTANCY ACTIVITIES |
| | ☐ 71 - ARCHITECTURAL AND ENGINEERING ACTIVITIES; TECHNICAL TESTING AND ANALYSIS |
| | □ 72 - SCIENTIFIC RESEARCH AND DEVELOPMENT |
| | □ 73 - ADVERTISING AND MARKET RESEARCH |
| | □ 74 - Other professional, scientific and technical activities |
| | □ 75 - VETERINARY ACTIVITIES |
| | □ M - OTHERS |
| | |
| | J - Other services |
| | 🗆 D - ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY |
| | ☐ E - WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES |
| | ☐ H - TRANSPORTATION AND STORAGE (INCLUDING POSTAL AND COURIER ACTIVITIES) |
| | □ K - FINANCIAL AND INSURANCE ACTIVITIES |
| | □ L - REAL ESTATE ACTIVITIES |
| | □ N - ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES |
| | O - PUBLIC ADMINISTRATION AND DEFENCE: COMPULSORY SOCIAL SECURITY |
| | P - EDUCATION |
| | Q - HUMAN HEALTH AND SOCIAL WORK ACTIVITIES |
| | R - ARTS, ENTERTAINMENT AND RECREATION |
| | |
| | S - OTHER SERVICE ACTIVITIES |
| | ☐ T - ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND |
| | SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE |

Section B: EXPERIENCE WITH R&D BEFORE 2007

In this section we ask you some questions to understand what kind of experience with R&D activities your enterprise had before 2007. Please answer considering all R&D projects you have been involved in, not necessarily co-financed by ADE.

| B0. Did your enterprise ever implemented any R&D project between 2000 and 2006? * | □ Yes → Go to sub-section B1 □ No → Go to sub-section B2 |
|---|---|
| | |

Sub-section B1: some R&D before 2007

| B1.1. How many R&D projects did your enterprise carry out between 2000 and 2006? * | □ 0 □ 1 □ 2 □ 3 □ More than 3 |
|--|---|
| B1.2. Did your enterprise own any patent before 2007? * | □ Yes □ No |
| B1.3. Has your enterprise ever collaborated with universities or research/technological centres on past R&D projects (between 2000 and 2006)? * | ☐ Yes, once ☐ Yes, more than once ☐ No |
| B1.4. Has your enterprise ever established alliances/partnerships with other enterprises to carry out common R&D projects (between 2000 and 2006)? * | □ Yes, once □ Yes, more than once □ No |
| B1.5. Has your enterprise ever benefitted from public support for R&D projects which started before 2007? * | ☐ Yes → B1.5.1. ☐ No, never |
| If B1.5. = "Yes" B1.5.1. From whom? | More than one answer is possible From ADE From other regional authorities From other national authorities From the European Commission |

Sub-section B2: no R&D before 2007

| B2.1. Did your enterprise have some dedicated equipment and space (laboratory) to carry out R&D before 2007? * | □ Yes □ No |
|---|-----------------------|
| B2.2. Did your enterprise employ some researchers and technicians who could work on R&D activities before 2007? * | □ Yes □ No |
| B2.3. Did your enterprise own any patent before 2007? * | □ Yes □ No |
| B2.4. Did your enterprise ever collaborated with universities or research/technological centres between 2000 and 2006? * E.g. asking advice, buying their consulting services, externalising some activities | ☐ Yes, more than once |

Section C: THE R&D PROJECT(S) SUPPORTED BY ADE

In this section we aim to collect some information about the R&D project(s) for which you have received ADE support.

Note: Please consider also unfinished and interrupted projects and \square More than $1 \rightarrow go to C2$

 \square 1 \rightarrow go to sub-section C1

C0. How many R&D projects did you start between 2007 and

those projects for which you have not received ADE payment yet

2013 for which you received support by ADE? *

| Sub-section C1: one project imp | olemente | d afte | er 2007 v | vith ADE s | upport | |
|--|---------------------|------------|----------------------------|-------------|----------|-----------|
| C1.1. Which of the following was the objective | | | | | | |
| project supported by ADE? * | | | | | | |
| C1.1.1. Pre-feasibility study for a R&D or | experimer | ntal | | | | |
| development project | | | | | | |
| C1.1.2. R&D or experimental development | activities | to | | | | |
| realise a prototype | | | | | | |
| C1.1.3. R&D or experimental development | | to | | | | |
| realise a new product/service for commercializ | | . . | 7 V | | | |
| C1.2. Did the project achieve its intended R&D | objectives | | Yes, com | . , | | |
| | | | Only par | | | o cofu il |
| | | | | project was | UNSUCCE | 322101 |
| C1.3. Did your enterprise incur in the followin project? * | g expense | es to II | mplement | the K&D | | |
| C1.3.1 Expenses for the purchase of patents or | <u>licenses</u> rig | ghts | | | □Y | 'es |
| · | | | | | | 10 |
| Expenses for <u>external consulting</u> C1.3.2. from universities and/or \square Yes | | | | | | 'es |
| services (contractual research, research/technological centres | | | | | | |
| engineering design, other C1.3.3. from | m others | | | | □ Y | |
| consulting services): | · | | | <u>_</u> | | 10 |
| C1.4. Have you carried out the R&D project | | | | | | |
| collaboration with other enterprises? * | | - | terprise wo r of the R& | as the only | propone | ent and |
| C1 5 Tarribut and and any the D0D are the d | ППРІСІ | пеше | Of the Ka | D project | | <u> </u> |
| C1.5. To what extent was the R&D project that | | | FNOUGH | ADDDECLARLY | VERY | I DON'T |
| you implemented with ADE support affected by the following risks or uncertainties? * | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | MUCH | KNOW |
| C1.5.1. Risk of not finding other | П | П | П | П | П | П |
| complementary external financing sources to | Ц | | | | | |
| start the project | | | | | | |
| C1.5.2. Risk that the project turned out to be | П | П | П | П | <u> </u> | П |
| more costly than forecasted | | | | | | |
| C1.5.3. Risk of not fully achieving the research | П | П | | П | † | П |
| objectives | | | | | | |
| C1.5.4. Uncertainty about the potential for | П | П | П | П | П | П |
| commercialization of the R&D outputs | | | | | | |
| C1.5.5. Uncertainty about future market | | | | | | |
| conditions due to the economic crisis | | | | | | İ |
| C1.5.6. Fear of having insufficient managerial | | | | | | |
| experience and skills in your enterprise to | | | | | | |
| achieve/maximise the project objectives | | | i | | | |

Sub-section C2: more than one project implemented after 2007 with ADE support

| C2.1. How many of those R&D projects support following objective? * | orted by ADI | E had th | ne | Insert the | numbe | r |
|---|---|----------------------------|-------------------------------|----------------------------|--------------|-----------------|
| C2.1.1. Pre-feasibility study for a R&E | or exp | eriment | al | | | |
| development project | | | | _ | | |
| C2.1.2. R&D or experimental development | а | | | | | |
| prototype | | | | | | _ |
| C2.1.3. R&D or experimental development | activities to | realise | а | | | |
| new product/service for commercialization | | | | | | _ |
| C2.2. How many of those projects * | | | | Insert the | numbe | r |
| have completely achieved their | rintended c | biective | es | | | |
| have partially achieved thei | | | | | | |
| ; | /e been uns | | | | | |
| have been int | | | | | | |
| | | | + | | | |
| C2.3. For how many of those R&D projects | did you inc | ur in th | 19 | Insert the | | |
| following expenses? * | ala you ille | .01 111 11 | | 1113011 1110 | HOHIDCI | |
| C2.3.1. Expenses for the purchase of patents | or licenses ri | ahts | | | | |
| Expenses for external consulting C2.3.2 | | | | | | |
| <u>services</u> (contractual research, and/a | | 1114 (1311) | 03 | | | _ |
| engineering design, other consulting resear | | ogical | | | | |
| services): centre | | Jylcui | | | | |
| ; | · from other | | | | | |
| C2.3.3 | . Irom omer | 5 | | | | = |
| C2.4. How many of those R&D All of them were collabor | | | | | | |
| | | | | | | |
| | e of them w | | | | ronono | nt and |
| collaboration with other enterprises? | e, my enter | prise w | as alway | e projects s the only p | propone | ent and |
| collaboration with other enterprises? | | prise w | as alway | | propone | ent and |
| collaboration with other enterprises? | e, my enter | prise w | as alway | | propone | ent and |
| collaboration with other enterprises? Non impler | e, my enter | prise w | as alway | | | |
| collaboration with other enterprises? * Non implemented with R&D projects that you implemented with ADE support | e, my enter | prise w | as alway | | VERY | I don't |
| collaboration with other enterprises? Non implemented with R&D projects that you implemented with ADE support affected by the following risks or | e, my enter menter of th | prise w e R&D p | as alway oroject | s the only p | | |
| collaboration with other enterprises? Non implemented with R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * | e, my enter menter of th NOT AT ALL | prise w e R&D r | as alway oroject ENOUGH | s the only p | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? C2.5.1. Risk of not finding other | e, my enter menter of th | prise w e R&D p | as alway oroject | s the only p | VERY | I don't |
| collaboration with other enterprises? Non implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources | e, my enter menter of th NOT AT ALL | prise w e R&D r | as alway oroject ENOUGH | s the only p | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? C2.5.1. Risk of not finding other complementary external financing sources to start the project | e, my enter menter of th NOT AT ALL | prise w e R&D g μπιε | as alway oroject ENOUGH | s the only p | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implemented | e, my enter menter of th NOT AT ALL | prise w e R&D r | as alway oroject ENOUGH | s the only p | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implemented | e, my enter menter of th NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implemented | e, my enter menter of th NOT AT ALL | prise w e R&D g μπιε | as alway oroject ENOUGH | s the only p | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implementary | e, my enter nenter of th | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for | e, my enter menter of th NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs | e, my enter nenter of th | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market | e, my enter nenter of th | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implementary | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? Non implementary | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your enterprise to achieve/maximise the project | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? * C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your enterprise to achieve/maximise the project | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties?* C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your enterprise to achieve/maximise the project objectives | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |
| collaboration with other enterprises? * C2.5. To what extent were the R&D projects that you implemented with ADE support affected by the following risks or uncertainties? C2.5.1. Risk of not finding other complementary external financing sources to start the project C2.5.2. Risk that the project turned out to be more costly than forecasted C2.5.3. Risk of not fully achieving the research objectives C2.5.4. Uncertainty about the potential for commercialization of the R&D outputs C2.5.5. Uncertainty about future market conditions due to the economic crisis C2.5.6. Fear of having insufficient managerial experience and skills in your enterprise to achieve/maximise the project objectives | e, my enter menter of the NOT AT ALL | LITTLE | as alway project ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW |

| C4. To which extent do you agree with the following statements? * Over the last years (2000-2013) | STRONGLY DISAGREE | DISAGREE | AGREE | STRONGLY AGREE | DON'T KNOW |
|--|----------------------|----------|-------|-------------------|---------------|
| C4.1 the overall budget of each R&D project has increased | | | | | |
| C4.2 the technical complexity of R&D projects carried out by my enterprise has increased | | | | | |
| C4.3 my enterprise has been willing to carry out more ambitious (and risky) R&D projects | | | | | |
| C4.4 collaboration with other enterprises for R&D projects has become more regular and intense | | | | | |
| C4.5 cooperation with universities and research/technological centres for R&D projects has become more regular and intense | | | | | |

Section D: INVESTMENT RESULTS

In this section we aim to understand the changes produced by the R&D project in your enterprise and the economic benefits ascribable to that project.

In case you have implemented more than one R&D project with ADE support, in answering the following questions please refer to all the projects supported by ADE between 2007 and 2013.

,....

| D1. Did the implementation of the R&D project supported by and 2013 bring about any of the following changes to your en Select at least one of the following changes | =' | |
|--|-------------------------|--|
| D1.1.1 have widened the range of offered products/services or impro | oved their quality | |
| D1.2. I have upgraded the existing production processes or introc processes | duced new production | |
| D1.3. I could increase/improve the R&D equipment and/or open/e and spaces for R&D enterprise | nlarge the laboratories | |
| D1.4. I had access to new knowledge and equipment thanks to other enterprises, universities and research/technological centres | the collaboration with | |
| D1.5. My enterprise reputation improved | | |
| D1.6. I have started selling in new foreign markets | | |
| D1.7. I have improved the overall work organisation | | |
| D1.8. I hired new employees/researchers | | |
| D1.9. Thanks to the R&D project I could maintain the number of emp | loyees/researchers | |
| D1.10. Other – please specify: | | |
| D2. Did your enterprise already registered a patent or does it | ☐ Yes, at least one | |
| expect to do so in the near future as a consequence of the R&D project(s) implemented? * | □ No □ I don't know | |
| D3. Did your enterprise generate a spin-off, or does it expect | ☐ Yes | |
| to do so in the near future as a consequence of the R&D | □ No | |
| project(s) implemented? * | □ I don't know | |

| D4. Which economic results have you already achieved thanks to the R&D project? * | NOT AT ALL | LITTLE | ENOUGH | APPRECIABLY | VERY MUCH | I DON'T KNOW | |
|---|---|--------|--------|-------------|--------------|-----------------|---|
| D4.1. I have increased sales | | | | | | | |
| D4.2. I have increased the number of clients | | | | | | | |
| D4.3. I have diversified the type of clients | | | | | | | |
| D4.4. I have increased export | | | | | | | |
| D4.5. I have decreased total costs | | | | | | | |
| D4.6. I have increased the enterprise's capacity to resist the effects of economic crisis | | | | | | | |
| D4.7. Other – specify (not mandatory) | | | | | | | |
| D5. Do you expect that these economic will overall improve in the next 3-5 years | , | | | | | |) |
| D6. Is your enterprise currently facing the closure/bankruptcy or is currently closin | r enterprise currently facing the risk of □ Yes | | | | | | |

Section E: OPINION ON THE PUBLIC SUPPORT PROGRAM

In this section we ask you some questions to understand how you judge your experience with the support granted by ADE for the R&D projects.

·

| E1. How important was the possibility of benefitting from ADE support in the decision of starting the R&D project(s) between 2007 and 2013? * Select the most relevant option(s) | financial difficulties | | | | | |
|---|--|---------------------|--------------------------------|-----------------|-------------------|--|
| E2. Please indicate your satisfaction on the following issues regarding your application to ADE support * | NOT SATISFIED AT ALL | POORLY SATISFIED | INDIFFERENT | SATISFIED | VERY SATISFIED | |
| E2.1. Simplicity and smoothness of the application and selection process | | | | | | |
| E2.2. ADE technical skills and ability to establish a dialogue on the R&D themes | | | | | | |
| E2.3. Length of time before receiving ADE payment | | | | | | |
| E2.4. Length of time before receiving ADE final payments as compared with other available public sources | | | | | | |
| E3. Would you apply again in future for ADE support for R&D projects? | □ I think so □ I don't' kr □ I don't thi | - | | | | |
| E4. How much would you be interested in the following types of public support for your future R&D projects? | NOT AT ALL | LITTLE | Indifferen t/Idon't know | APPRECIAB LY | VERY MUCH | |
| Guarantees for bank credit or other public loans | | | | | | |
| Loans | | | | | | |
| Venture capital | | | | | | |
| Non-repayable grants | | | | | | |
| A combination of any of the previous ones | | | | | | |

Section F: CHANGES IN YOUR ENTERPRISE'S LIFE

In this last section we want to understand what further changes, not necessarily economic ones, have been generated on your enterprise thanks to the R&D project for which you received ADE support.

In case you benefited more than once from the Program during 2007-2011, in answering the questions please make reference to the first of your projects that has been supported by the program.

| F1. How did you feel when you knew that your application for the R&D project(s) had been accepted by ADE? | □ Worried □ I expected that □ I don't remember □ Happy □ Euphoric □ Other – please specify | | | | |
|---|---|----------|-------|-------------------|---------------|
| F2. To which extent do you agree with the following statements? * | STRONGLY DISAGREE | DISAGREE | AGREE | STRONGLY AGREE | DON'T KNOW |
| F2.1. Thanks to the R&D project(s) supported by ADE, my opinion about public support for R&D projects of small-medium enterprises has improved | | | | | |
| F2.2. Thanks to the R&D project(s) supported by ADE, my opinion about initiatives financed by the European Union for small-medium enterprises has improved | | | | | |
| F2.3. After implementing the R&D project(s) supported by ADE, I started to consider the possibility to carry out R&D projects that I never considered before | | | | | |
| F2.4. After implementing the R&D project(s) supported by ADE, I started to consider new possible investments (non R&D) that I never considered before | | | | | |
| F2.5. After implementing the R&D project(s) supported by ADE, I realized that my enterprise has more scope for expansion than I thought | | | | | |
| F2.6. After implementing the R&D project(s) supported by ADE, I realised that I should collaborate with universities and research/technological centres more than I did in the past | | | | | |
| F2.7. After implementing the R&D project(s) supported by ADE, I am considering the idea of establishing new alliances with other enterprises to implement common R&D projects | | | | | |
| F2.8. After implementing the R&D project(s) supported by ADE, my expenditure in R&D has increased and it is likely to remain higher than before | | | | | |
| F2.9. After implementing the R&D project(s) supported by ADE, I realised that it would be better to have more skilled employees | | | | | |

F3. Space for open comments

Section G: ADDITIONAL INFORMATION ABOUT THE ENTERPRISE

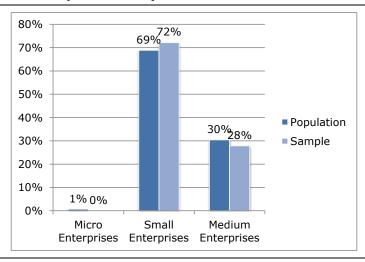
This section includes non-mandatory questions asking some additional information about your enterprise. We remind you that your replies would be confidential.

| G1. Number of employees (Full time equivalent) | In the year of application for ADE support, but before starting the R&D project (2007-2013) SHOULD YOU HAVE APPLIED MORE THAN ONCE, PLEASE ANSWER WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | At the end of 2014 | |
|---|--|------------------------|--|
| | □ 0 - 9 | □ 0 - 9 | |
| | □ 10 - 49 | □ 10 - 49 | |
| | □ 50 – 99 | □ 50 − 99 | |
| | □ 100 – 249 | □ 100 – 249 □ > 249 | |
| G2. Annual turnover or sales | In the year of application for ADE support, but before starting the R&D | | |
| | project (2007-2013) | At the end of 2014 | |
| | SHOULD YOU HAVE APPLIED MORE THAN ONCE, PLEASE ANSWER | | |
| | WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | | |
| less than 1 Million € | | | |
| between 1 and 2 Million € | | | |
| BETWEEN 2 AND 5 MILLION € | | | |
| between 5 and 10 Million € | | | |
| between 10 and 20 Million € | | | |
| between 20 and 50 Million € | | | |
| More than 50 Million € | | | |
| G3. Approximate share of exports out of total sales | In the year of application for ADE support, but before starting the R&D project (2007-2013) | At the end of 2014 | |
| exports out of foldi sales | SHOULD YOU HAVE APPLIED MORE THAN ONCE, PLEASE ANSWER | 2014 | |
| | WITH REFERENCE TO THE YEAR OF THE FIRST APPLICATION | | |
| NULL | | П | |
| LESS THAN 10% | Π | П | |
| BETWEEN 10% AND 30% | П | П | |
| BETWEEN 30% AND 50% | П | | |
| More than 50% | | | |

3.2. Analysis of the sample representativeness

The representativeness analysis for SMEs located in the Spanish region of Castile and Leon is based on the variables size, NUTS 3, value of the investment and value of grant. The survey was addressed to 299 SMEs that implemented at least one R&D project since 2007 and for which they received a grant by the Agencia de Inversiones y Servicios (ADE). The survey was carried out between July 30th - September 18th 2015. A total of 97 SMEs filled out the questionnaire, which represents a 32% response rate.

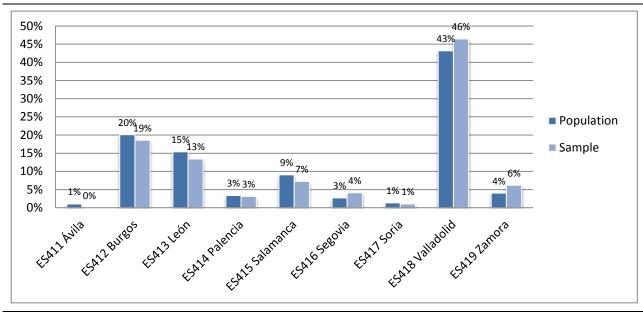
Figure 72. Share of respondents by size



Source: Csil

Figure 72 illustrates the percentage of SMEs in the targeted population and in the sample broken down by firm size. The bar chart highlights the preponderance of small firms both in the population and in the sample. The latter over-represents small firms.

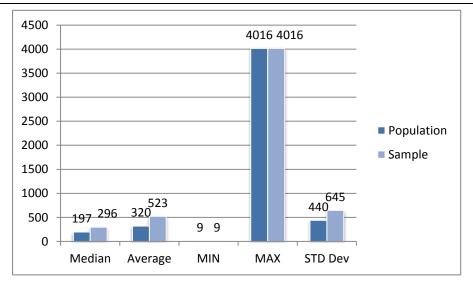
Figure 73. Share of respondents by province (NUTS3)



The above graph shows the spatial distribution of SMEs in Castile and Leon split by NUTS3 both in the sample and in the whole pool of beneficiaries. The sample makes a good approximation of the targeted population; so there is no bias in the representativeness of the sample. We note that almost half of the beneficiaries is located in the province of Valladolid.

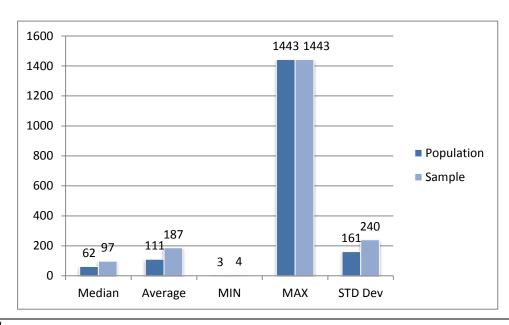
Figure 74 compares the distribution of the value of the investment project emerging from the sample and the population while Figure 75 looks at the value of the public support. Although the sample mean is a little bit higher than the population mean, the sample seems to overlap quite well the population.

Figure 74. Value of the investment project (thousands EUR on average per SME)



Source: Csil

Figure 75. Value of the public support (thousands EUR on average per SME)



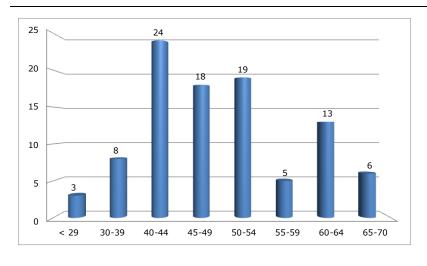
3.3. Descriptive statistics of the questionnaire responses

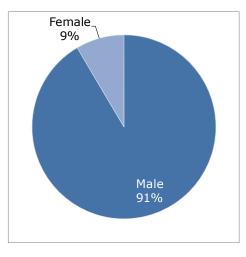
Section A: General enterprise information

The descriptive statistics of section A gives a general overview about the main features of enterprises and entrepreneurs involved in the sample.

Figure 76. A4 - Age of the entrepreneur today

Figure 77. A5 - Gender of the entrepreneur





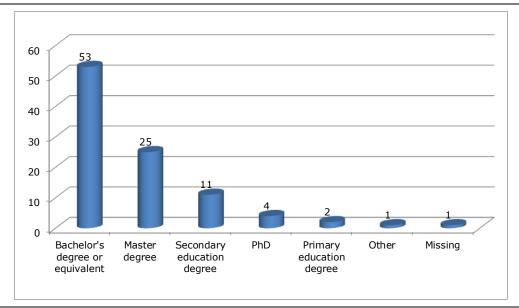
Source: Csil

Note: 96 respondents; 1 missing.

Source: Csil

Note: 94 respondents; 3 missing.

Figure 78. A6 - Education attainment of the entrepreneur



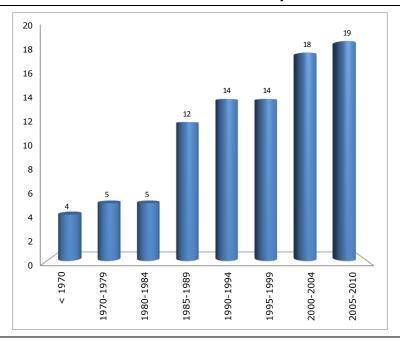
Source: Csil

Note: 96 respondents; 1 missing.

Considering the information on entrepreneurs, most of them (67%) have an age from 40 to 54 years. Younger entrepreneurs (< 39 years) represent the lowest share of the sample.

Moreover, men represent the main part of these entrepreneurs, with only 9% of them being women. Regarding the educational attainment, 81% of them have a medium-high educational background (Bachelor and master degree).

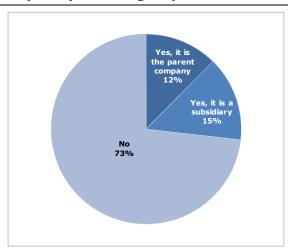
Figure 79. A.3 - Year of establishment of the enterprise



Source: Csil

Note: 91 respondents; 6 missing.

Figure 80. Is your enterprise part of a group?

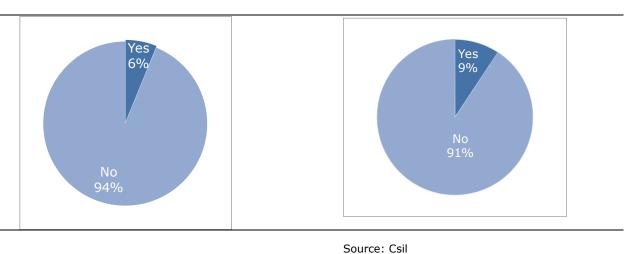


Source: Csil

Note: 97 respondents.

Figure 81. A8 - Was your enterprise born as a spin-off from a university or research - technological centre?

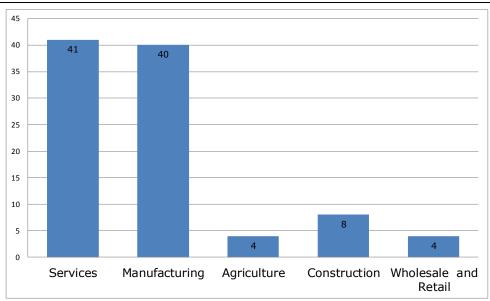
Figure 82. A9 - Was your enterprise born as a spin-off from another enterprise?



Source: Csil Note: 97 respondents.

Note: 97 respondents.

Figure 83. A10 - In which sector does your enterprise operate?



Source: Csil

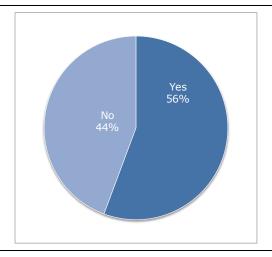
Note: 97 respondents.

Data related to the general information of enterprises show that 40% are very young having been founded since 2000, and 71% were established since 1990. Regarding the governance structure, the 73% of enterprises are not part of any industrial group, while the others are in a group as parent enterprise (12%) or subsidiary (15%). Furthermore, some enterprises were created as a spin-off from a university/research centre (6%) or from another enterprise (9%).

Finally, as shown in the last graph of this section the majority of enterprises operate in the services and manufacturing sector followed by those in the wholesale and retail.

Section B: experience with R&D before 2007

Figure 84. B0 - Did your enterprise ever implemented any R&D project between 2000 and 2006?



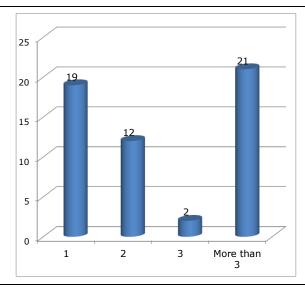
Source: Csil

Note: 97 respondents.

This section is focused on the enterprise experience with R&D before 2007 and distinguishes between: enterprises that implemented R&D projects before receiving ADE grants (56%) in the period 2000-2006 and enterprises with no R&D experiences before 2007 (44%).

Subsection B1 dedicated to firms which implemented one or more R&D projects before 2007

Figure 85. B1.1 - How many R&D projects did your enterprise carry out between 2000 and 2006?

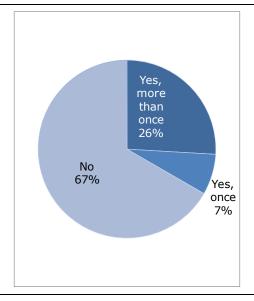


Source: Csil

Note: 54 respondents, who declared to have done more than one project.

Regarding the first group, the number of implemented projects vary among enterprises. From the graph we can see that the majority of enterprises have implemented either one project (19 enterprises) or more than three projects (21 enterprises).

Figure 86. B1.4 - Has your enterprise ever established alliances/partnerships with other enterprises to carry out common R&D projects (between 2000 and 2006)?

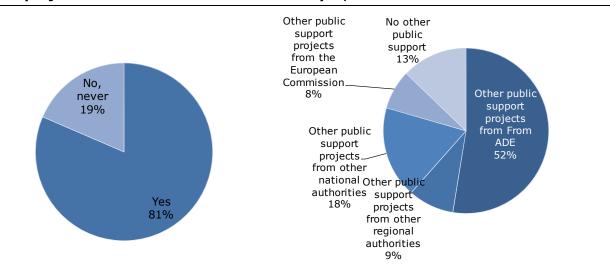


Source: Csil

Note: 54 respondents, who declared to have done more than one project.

In the majority of cases, the enterprises have implemented R&D projects without being part of alliances/partnerships. At the same time, figures show that enterprises which have established alliances to carry out the R&D project usually do it more than once.

Figure 87. B1.5 - Has your enterprise ever benefitted from public support for R&D projects which started before 2007? If yes, from whom?



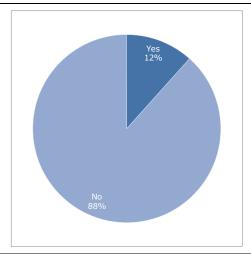
Source: Csil

Note: 54 respondents, who declared to have done more than one project.

Out of 54 enterprises, only 19% of them did not receive public support for any previous R&D projects. On the other hand, the remaining part received support mainly from ADE (52%). The other possible sources of public supports are European Commission, National authorities and regional authorities.

Subsection dedicated to firms which received ADE grant as R&D project

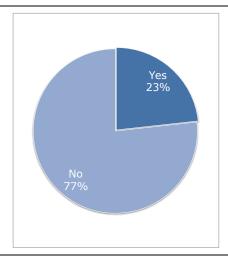
Figure 88. B2.1 - Did your enterprise have some dedicated equipment and space (laboratory) to carry out R&D before 2007?



Source: Csil

Note: 43 respondents, who declared to have done the project with ADE.

Figure 89. B2.2 - Did your enterprise employ some researchers and technicians who could work on R&D activities before 2007?

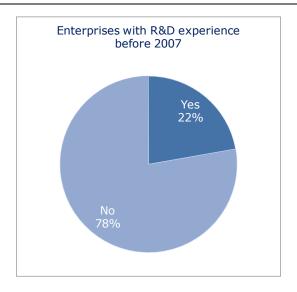


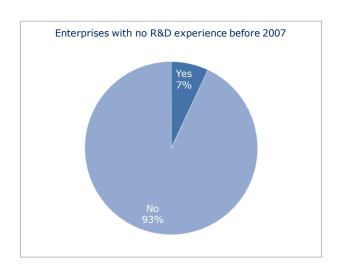
Source: Csil

Note: 43 respondents, who declared to have done the project with ADE.

Concerning firms which received ADE grants as R&D projects, it is interesting to notice that even if they did not carry out any other research projects since 2000, some of them have got equipment and laboratories (17%) and researches and technicians (23%) that could be possibly employed in R&D.

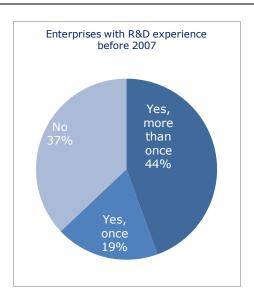
Figure 90. B1.2 + 2.3 - Did your enterprise own any patent before 2007?

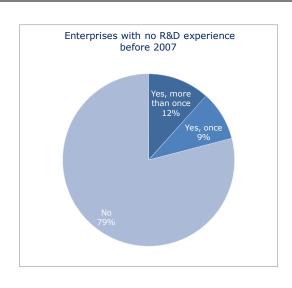




Note: 54 respondents more than one project; 43 respondents ADE project only.

Figure 91. B1.3 + 2.4 - Has your enterprise ever collaborated with universities or research/technological centres between 2000 and 2006?





Source: Csil

Note: 54 respondents more than one project; 43 respondents ADE project only.

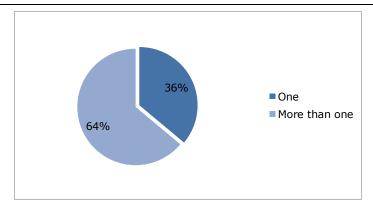
Figure 90 shows that for both groups, before 2007 the percentage of enterprises owning a patent is low. Nevertheless, enterprises which have a longer experience in R&D are more likely to have a patent as compared to the other projects.

Moreover, enterprises with R&D experience before 2007 have more often collaborated with universities or research center than enterprises with no R&D experience.

Section C: The R&D projects supported by ADE

This section is focused on R&D projects supported by ADE from 2007 onwards. Between 2007 and 2013 36% of enterprises started one R&D project supported by ADE, while 64% did more than one project in the same time frame.

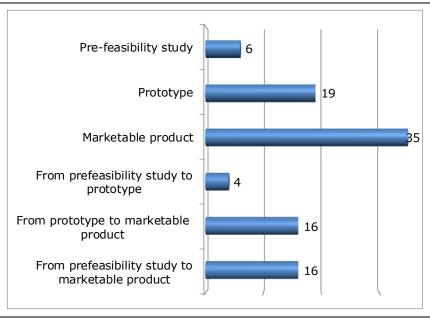
Figure 92. C0 - How many R&D projects did you start between 2007 and 2013 for which you received support by ADE?



Source: Csil

Note: 97 respondents.

Figure 93. C1.1-2.1- Which of the following was the objective of the R&D project supported by ADE?



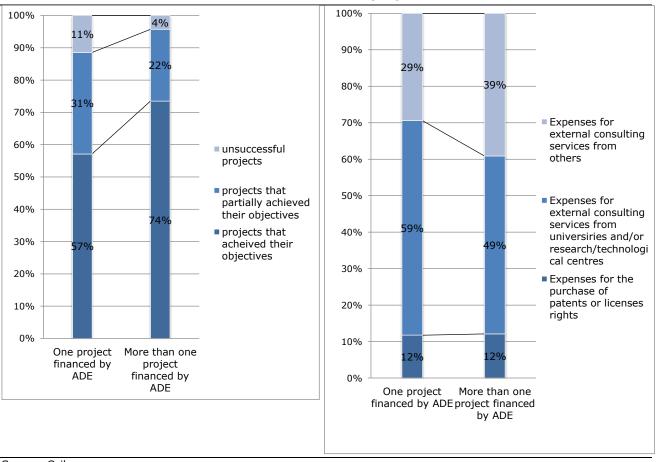
Source: Csil

Note: The question allowed <u>more than one answer</u> for <u>both</u> groups. All respondents answered the question, but we have 41 answers in the first group (where respondents are 35) and 302 in the second group (where respondents are 62 but they have multiple projects, so multiple objectives).

Figure 94.
C1.1+ 2.2 Did the project achieve its intended R&D objectives?

Figure 95.

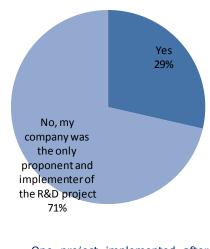
C1.1+2.3 Did your enterprise incur in the following expenses to implement the R&D project?

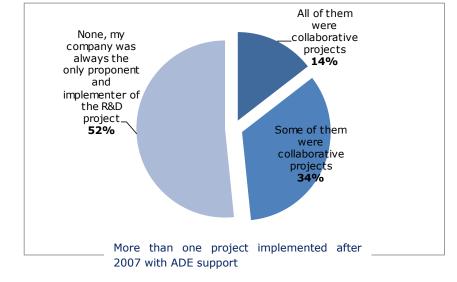


It is clear that according to the majority of respondents, the projects have pursued their R&D objectives.

Figure 95 allows us to understand if the enterprises carried out their R&D projects in collaboration with other firms before 2007. It is possible to notice that most of the projects were not realized in collaboration.

Figure 96. C1.4+2.4 Have you carried out the R&D project in collaboration with other enterprises?



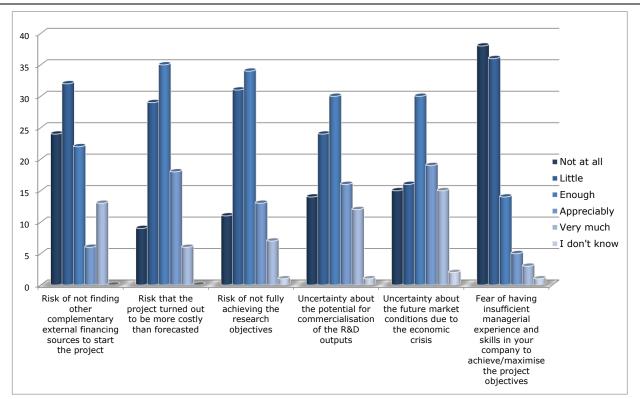


One project implemented after 2007 with ADE support

Source: Csil

Note₁: 35 respondents. Note₂: 63 respondents.

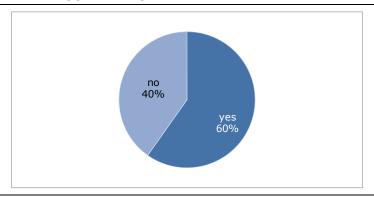
Figure 97. C 1.5 + 2.5 - To what extent was the R&D project that you implemented with ADE support affected by the following risks or uncertainties?



Source: Csil

Note: 97 respondents.

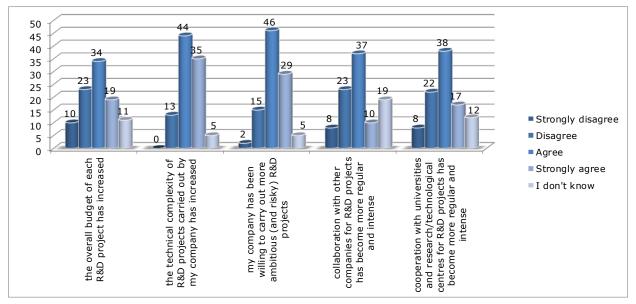
Figure 98. C3 - Have you carried out other R&D projects between 2007 and 2013 which have not been supported by ADE?



Note: 97 respondents.

We can see that 60% of the enterprises carried out other R&D projects without the support of ADE.

Figure 99. C4 - To what extent do you agree with the following statements?

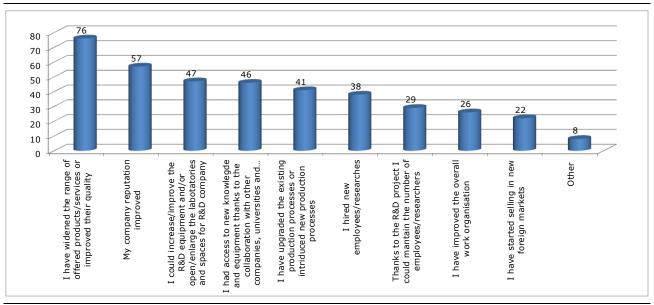


Source: Csil

Note: 97 respondents. They are asked to answer on the basis of the period 2000-2013.

Section D: Investments results

Figure 100. D1 - Did the implementation of the R&D project supported by ADE between 2007 and 2013 bring about any of the following changes to your enterprise?

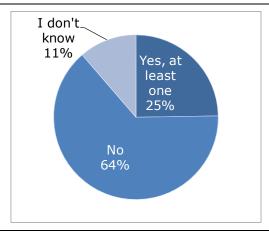


Source: Csil

Note: Respondents were allowed to give more than one answer.

Concerning the link between the implementation of the R&D projects supported by ADE and the positive changes brought about to the enterprise, most of the respondents agree that the project led to the widening of the range of products and services and an improvement in their quality. Another relevant change is the improvement of the enterprise reputation.

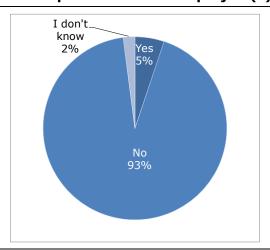
Figure 101. D2 - Did your enterprise already registered a patent or does it expect to do so in the near future as a consequence of the R&D projects implemented?



Source: Csil

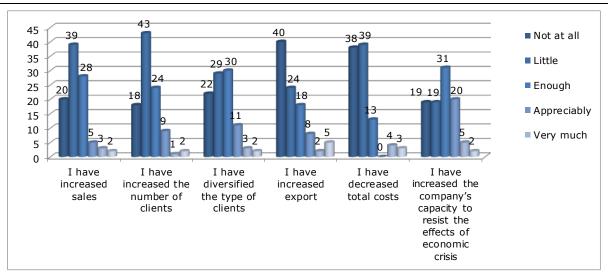
Note: 97 respondents.

Figure 102. D3 - Did your enterprise generate a spin-off, or does it expect to do so in the near future as a consequence of the R&D project(s) implemented?



Note: 97 respondents.

Figure 103. D4 - Which economic results have you already achieved thanks to the R&D project?

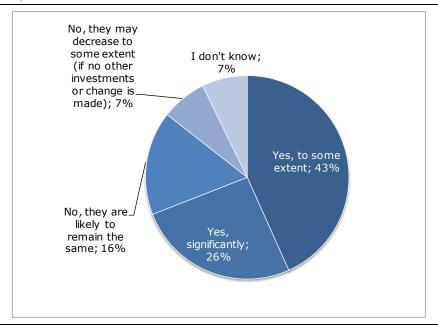


Source: Csil

Note: 97 respondents.

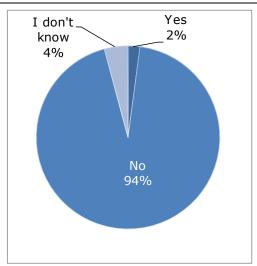
Regarding the economic results achieved thanks to the R&D projects, Figure 103 shows that the implementation of the R&D projects allows the enterprises to increase particularly their sales and their capacity to resist the effects of economic crisis.

Figure 104. D5 - Do you expect that these economic results will overall improve in the next 3-5 years?



Note: 97 respondents.

Figure 105. D6 - Is your enterprise currently facing the risk of closure/bankruptcy or is currently closing?



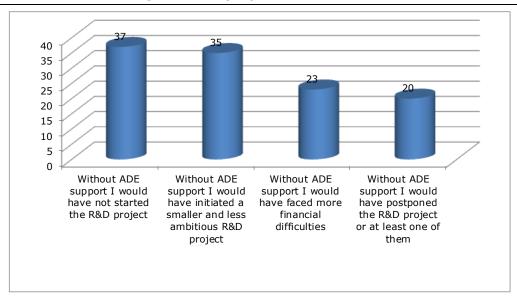
Source: Csil

Note: 96 respondents, 1 missing.

About 70% of enterprises expects that the economic results will overall improve in the next 5 years.

Section E: Opinion on the public support program

Figure 106. E1 - How important was the possibility of benefitting from ADE support in the decision of starting the R&D projects between 2007 and 2013?

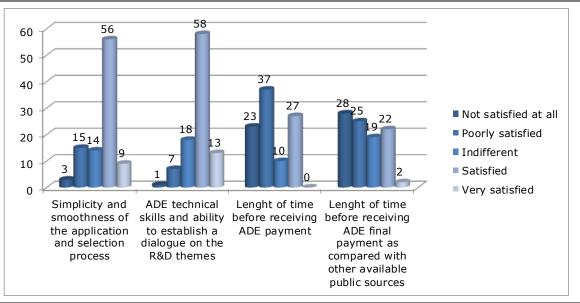


Source: Csil

Note: Respondents gave more than one answer per-capita.

The graph above allows us to understand the link between the decision of starting the R&D projects during the period 2007-2013 and ADE support. The evidence shows us that without ADE support, most of enterprises could not start their R&D project or would have faced significant financial difficulties.

Figure 107. E2 - Please indicate your satisfaction on the following issues regarding your application to ADE support.

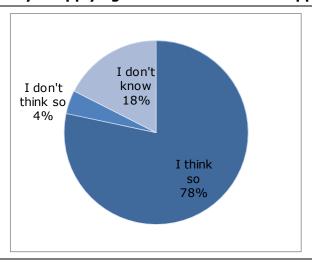


Source: Csil

Note: 97 respondents.

Enterprises are generally satisfied or very satisfied with the simplicity of the application process. On the contrary, they are dissatisfied with the length of time before receiving payments, both in absolute terms and compared to other public support institutions.

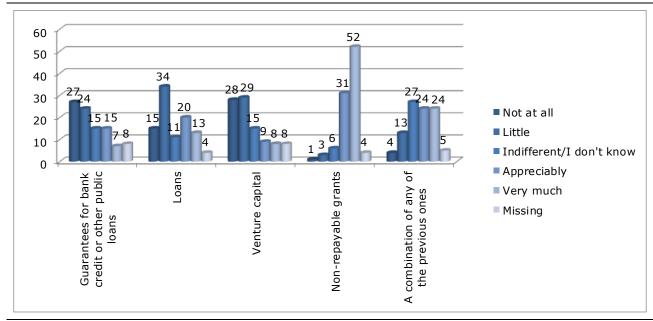
Figure 108. E3 - Would you apply again in future for ADE support for R&D projects?



Source: Csil

Note: 97 respondents.

Figure 109. E4 - How much would you be interested in the following types of public support for your future R&D projects?

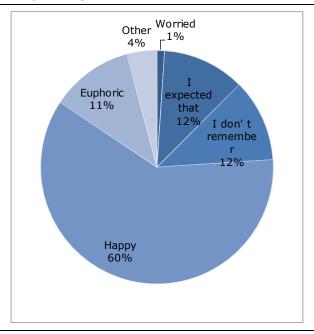


Source: Csil

Note: Respondents are slightly less than 97 for every parameter, as this question was not mandatory.

Section F: Changes in your enterprise's life

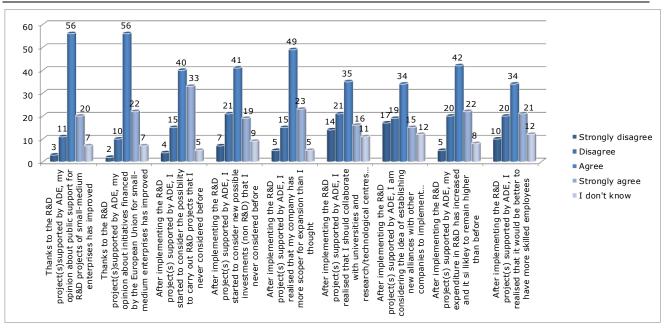
Figure 110. F1 - How did you feel when you knew that your application for the R&D projects had been accepted by ADE?



Source: Csil

Note: 96 respondents; 1 missing.

Figure 111. F2 - To which extent do you agree with the following statements?



Source: Csil

Note: 97 respondents.

3.4. Results of econometric regression

Table 28. Descriptive Statistics CyL

| Table 26. Descriptive Stati | • | | | | | |
|---|-----------------------|----------|--------|-------|--------|--------|
| VARIABLES | Definition | N | mean | sd | min | max |
| Type of change variables | See questionnaire | | | | | |
| D1.1 Widened prod and serv | See questionnaire | 97 | 0.784 | 0.414 | 0 | 1 |
| D1.2 Upgraded processes | See questionnaire | 97 | 0.423 | 0.497 | Ö | 1 |
| D1.3 Increased R&D equipment | See questionnaire | 97 | 0.485 | 0.502 | Ö | 1 |
| D1.4 Access new knowledge | See questionnaire | 97 | 0.474 | 0.502 | 0 | 1 |
| D1.4 Access new knowledge D1.5 Company reputation | See questionnaire | 97 | 0.588 | 0.302 | 0 | 1 |
| D1.6 New foreign markets | • | 97 | 0.388 | 0.421 | 0 | 1 |
| D1.6 New foreign markets D1.7 Work organisation | See questionnaire | 97 97 | 0.268 | | 0 | 1 |
| 5 | See questionnaire | | | 0.445 | | |
| D1.8 New employees/researchers | See questionnaire | 97 | 0.392 | 0.491 | 0 | 1 |
| D1.9 Maintain same employees | See questionnaire | 97 | 0.299 | 0.460 | 0 | 1 |
| Economic Results | | 07 | 2 227 | 4 000 | • | _ |
| D4.1 Increase Sales | See questionnaire | 97 | 2.237 | 1.008 | 0 | 5 |
| D4.4 Increase Exports | See questionnaire | 97 | 1.897 | 1.150 | 0 | 5 |
| D4.5 Decrease Costs | See questionnaire | 97 | 1.814 | 0.993 | 0 | 5 |
| D5 Expected Economic Results | See questionnaire | 97 | 3.639 | 1.235 | 1 | 5 |
| Behavioural Changes | | | | | | |
| F2.1 Opinion Support by ADE | See questionnaire | 97 | 3.814 | 0.993 | 1 | 5 |
| F2.2 Opinion Support by EU | See questionnaire | 97 | 3.887 | 0.945 | 1 | 5 |
| F2.6 Future Uni Collaboration | See questionnaire | 97 | 3.186 | 1.341 | 1 | 5 |
| F2.7 Future Firm Collaboration | See questionnaire | 97 | 3.113 | 1.368 | 1 | 5 |
| F2.8 Future Increase R&D | See questionnaire | 97 | 3.577 | 1.198 | 1 | 5 |
| Expenditure | oce queensimane | | 0.077 | 2.250 | - | J |
| Opinion Application Issues | | | | | | |
| E2.1 Simplicity | See questionnaire | 97 | 3.546 | 0.968 | 1 | 5 |
| E2.2 ADE dialogue and skills on R&D | See questionnaire | 97 | 3.773 | 0.810 | 1 | 5 |
| E2.3 Time before receiving payment | | | | | | |
| 5 , , | See questionnaire | 97 | 2.423 | 1.135 | 1 | 4 |
| E4 Future Application | See questionnaire | 97 | 1.134 | 0.448 | 0 | 2 |
| Past trend in R&D | | | | | | _ |
| C4.1 Increased R&D budget | See questionnaire | 97 | 3.340 | 1.298 | 1 | 5 |
| C4.2 Increased complexity RD proj | See questionnaire | 97 | 4.041 | 0.978 | 2 | 5 |
| C4.3 More ambitious R&D project | See questionnaire | 97 | 3.876 | 1.073 | 1 | 5 |
| Project objective | | | | | | |
| C1.1 C2.1 Pre feasibility study | See questionnaire | 97 | 0.546 | 1.225 | 0 | 8 |
| C1.1 C2.1 Prototype | See questionnaire | 97 | 1.402 | 2.375 | 0 | 15 |
| C1.1 C2.1 Innovative product | See questionnaire | 97 | 1.711 | 2.046 | 0 | 10 |
| C1.2 C2.2 R&D achieved objectives | See questionnaire | 97 | 1.588 | 0.625 | Ö | 2 |
| Project Characteristics | | | | | | _ |
| Number of proj 2005-2006 | Number of R&D | 97 | 0.155 | 0.363 | 0 | 1 |
| Number of proj 2005 2000 | projects implemented | 57 | 0.133 | 0.303 | O | - |
| | in years 2005-2006 | | | | | |
| | | | | | | |
| | (source: ADE | | | | | |
| N | monitoring system) | 07 | 4 533 | 4 000 | | • |
| Number of proj 2007-2013 | Number of R&D | 97 | 1.577 | 1.009 | 1 | 6 |
| | projects implemented | | | | | |
| | in years 2007-2013 | | | | | |
| | (source: ADE | | | | | |
| | monitoring system) | | | | | |
| R&D Grant 2007-2013 (log) | Logarithmic value of | 97 | 11.517 | 1.152 | 8.289 | 14.180 |
| | total public | | | | | |
| | contribution received | | | | | |
| | between 2007-2013 | | | | | |
| Last Year Project | Year of start of the | 97 | 2008 | 1.060 | 2007 | 2011 |
| Last real Project | project more recently | , | 2000 | 1.000 | 2007 | 2011 |
| | implemented | | | | | |
| C1 C2 3 2 Uni Collaboration 07-13 | See questionnaire | 97 | 0.362 | 0.483 | 0 | 1 |
| C1 C2 3 2 Offi Collaboration 07-13 | See questionnaire | 97 | 0.302 | 0.496 | 0 | 1 |
| • | • | | | | | |
| C1.5.1 Ext fund risk | See questionnaire | 97 | 2.505 | 1.300 | 1 | 5 |
| C1.5.2 Cost risk | See questionnaire | 97 | 2.825 | 1.041 | 1 | 5 |
| C1.5.3 Objectives risk | See questionnaire | 97 | 2.701 | 1.101 | 0 | 5 5 |
| C1.5.4 Market risk | See questionnaire | 97 | 2.845 | 1.253 | 0 | 5 |
| C1.5.5 Future market risk | See questionnaire | 97 | 2.969 | 1.342 | 0 | 5 |
| C1.5.6 Management risk | See questionnaire | 97 | 1.928 | 1.033 | 0 | 5 |
| C1.5 Funding risk | See questionnaire | 97 | 0.000 | 1.634 | -3.399 | 4.922 |
| C1.5 Market and Management risk | See questionnaire | 97 | 0.000 | 1.008 | -2.064 | 2.787 |
| Beneficiary Characteristics | | | | | | |
| A6 Entrepreneur education | See questionnaire | 97 | 3.208 | 0.767 | 1 | 5 |
| A7 Firm belong to a group | See questionnaire | 97 | 0.268 | 0.445 | Ö | 1 |
| Thin belong to a group | Jee questionnuite | ٠, | 5.200 | 3.173 | J | - |

| A7.1 Firm is a subsidiary | See questionnaire | 97 | 0.110 | 0.314 | 0 | 1 |
|------------------------------|----------------------------------|----|--------|-------|---|---|
| A8 firm spinoff university | See questionnaire | 97 | 0.0619 | 0.242 | 0 | 1 |
| A9 firm spinoff company | See questionnaire | 97 | 0.0928 | 0.292 | 0 | 1 |
| NACE | See questionnaire (question A10) | 97 | 2.773 | 1.358 | 1 | 5 |
| Size Small | Dummy for | 97 | 0.722 | 0.450 | 0 | 1 |
| | enterprises with 10-49 employees | | | | | |
| NUTS 3 | NUTS 3 province | 97 | 4.887 | 2.618 | 1 | 8 |
| | where the firm is based | | | | | |
| Initial export share | See questionnaire | 87 | 2.046 | 1.238 | 1 | 5 |
| | (G3) | | | | | |
| Initial turnover | See questionnaire | 88 | 2.522 | 1.625 | 1 | 6 |
| | (G2) | | | | | |
| D6 Probability of facing the | See questionnaire | 97 | 1.062 | 0.243 | 1 | 2 |
| closure/bankruptcy | (G3) | | | | | |
| | See questionnaire | | | | | |

Note: the Table shows summary statistics of the variables used in the case study of Castile and Leon . The variables C1.5 Funding risk' and C1.5 Market and Management risk' are expressed in principal components.

Table 29. Ordered Logit Estimates: Economic Performance

| Dependent Variable is | D4.1 Increa | se Sales | se Sales D4.4 Increase Exports | | D4.5 Dec | | D5 Expected Economic Results | | |
|--|---|--------------------------------------|-----------------------------------|------------------|------------------|------------------|---------------------------------|------------------|--|
| Variables | Coefficient | Std Err | Coefficie nt | Std Err | Coefficient | Std Err | Coefficien t | Std Err | |
| Type of change variables D1.1 Widened prod and | 1.73** | (0.85) | 0.86 | (1.03) | 0.70 | (0.68) | -0.12 | (1.01) | |
| serv D1.2 Upgraded processes | 0.43 | (0.76) | -0.10 | (0.72) | 1.41* | (0.78) | -0.29 | (0.77) | |
| D1.3 Increased R&D equipment | 1.06* | (0.59) | -0.02 | (0.67) | 0.58 | (0.76) | 2.21*** | (0.62) | |
| D1.4 Access new knowledge | 0.74 | (0.66) | 0.64 | (0.91) | -0.15 | (0.51) | -0.29 | (0.63) | |
| D1.5 Company reputation | -0.06 | (88.0) | 0.81 | (0.97) | -0.05 | (0.64) | 1.79** | (0.91) | |
| D1.6 New foreign | 1.21 | (0.97) | 2.90*** | (1.03) | 0.63 | (0.80) | 0.89 | (0.94) | |
| D1.7 Work organisation D1.8 New | 0.93* -1.42* | (0.54) (0.84) | 0.38 0.16 | (0.62) (0.93) | 0.94 -1.11 | (0.87) (1.05) | 0.59 -1.26 | (0.67) (0.87) | |
| employees/researchers D1.9 Maintain same | 1.00 | (0.73) | 0.18 | (0.99) | 0.14 | (0.69) | 0.29 | (0.83) | |
| employees Project objective | 1.00 | (0.73) | 0.10 | (0.55) | 0.14 | (0.03) | 0.23 | (0.03) | |
| C1.1 C2.1 Pre feasibility study | 0.23 | (0.25) | 0.70 | (0.55) | -0.24 | (0.61) | 0.32 | (0.32) | |
| C1.1 C2.1 Prototype C1.1 C2.1 Innovative product | -0.14 -0.07 | (0.13) (0.22) | -0.19 -0.21 | (0.15) (0.26) | -0.36 -0.05 | (0.13) (0.14) | -0.14 -0.06 | (0.09) (0.20) | |
| C1.2 C2.2 R&D achieved objectives | 0.05 | (0.48) | 0.52 | (0.56) | -0.01 | (0.39) | -0.22 | (0.53) | |
| Project Characteristics Number of proj 2005- | -0.64 | (1.49) | -2.04 | (1.97) | -0.25 | (1.17) | -1.91 | (1.60) | |
| 2006 Number of proj 2007- 2013 | 1.39*** | (0.54) | 0.66 | (0.51) | -0.13 | (0.41) | 0.67 | (0.43) | |
| R&D Grant 2007-2013 | -0.93* | (0.37) | -0.27 | (0.32) | -0.47 | (0.33) | -0.33 | (0.34) | |
| Last Year project C1 C2 3 2 Uni | 0.52 -0.67 | (0.74) (0.54) | -2.04 - | (1.97) | -0.15 -0.93 | (0.45) (0.72) | 0.10 -0.58 | (0.59) (0.71) | |
| collaboration 07-13 C1 C2 4 Partnership 07- 13 | -0.01 | (0.61) | 0.80 -0.43 | (0.65) (0.58) | 0.34 | (0.68) | 0.85 | (0.80) | |
| C1.5.1 Ext fund risk C1.5.2 Cost risk | 0.14 0.13 | (0.28) (0.40) | 0.23 -0.05 | (0.32) (0.60) | 0.35 -0.30 | (0.26) (0.40) | 0.58 -0.05 | (0.36) (0.36) | |
| C1.5.3 Objectives risk | -0.20 | (0.40) | -0.03 | (0.62) | 0.51 | (0.40) | 0.54 | (0.36) | |
| C1.5.4 Market risk C1.5.5 Future market | 0.46 -0.33 | (0.38) (0.38) | 0.44 -0.29 | (0.30) (0.31) | -0.07 0.12 | (0.38) (0.26) | 0.51 -0.44 | (0.29) (0.32) | |
| risk C1.5.6 Management risk | -0.26 | (0.31) | -0.32 | (0.36) | -0.30 | (0.35) | -0.22 | (0.39) | |
| Beneficiary Characteristi Initial export share | <i>cs</i> 0.04 | (0.39) | 0.43 | (0.36) | 0.08 | (0.35) | 0.03 | (0.15) | |
| Initial export share | -0.21 | (0.28) | -0.26 | (0.25) | -0.03 | (0.33) | -0.17 | (0.13) | |
| A6 Entrepreneur education | 0.63 | (0.46) | 0.20 | (0.51) | 0.63 | (0.40) | -0.32 | (0.26) | |
| A7 Firm belongs to a group | 0.06 | (1.11) | -0.84 | (0.77) | -0.63 | (0.68) | -0.32 | (0.66) | |
| A7.1 Firm is a subsidiary A8 Firm spinoff university | 2.23** 2.33** | (1.09) (1.05) | 1.28 -0.36 | (1.07) (1.04) | 0.21 2.99*** | (1.04) (1.12) | 2.28** 2.79* | (1.14) (1.56) | |
| A9 Firm spinoff company NACE | -0.39 | (1.38) | -1.59 -0.34 | (1.17) (0.30) | -1.46 0.11 | (1.32) (0.23) | 0.19 -0.21 | (1.47) (0.31) | |
| Agrofood Industry Construction Services Wholesale and Retail | -3.19** -1.37 -2.80*** -2.84** | (1.37) (1.15) (0.99) (1.46) | 5.57 | (5.50) | 0.11 | (5.25) | 0.21 | (0.31) | |
| Size small NUTS 3 | -0.18 -0.12 | (1.46) (1.31) (0.15) | -0.48 -0.08 | (1.19) (0.16) | -1.57** -0.05 | (0.79) (0.15) | 3.02*** -0.07 | (1.17) (0.14) | |
| | | | | | | | | | |

| $	au_1$ | 9.87 | (13.58) | -5.84 | (11.35) | 3.12 | (9.01) | 1.95 | (11.76) |
|-----------------------|--------|---------|--------|---------|--------|--------|--------|---------|
| $	au_2$ | 9.92 | (13.58) | -5.80 | (11.34) | 3.08 | (9.01) | 1.97 | (11.76) |
| $	au_3$ | 9.95 | (13.58) | -5.77 | (11.34) | 3.05 | (9.01) | 1.98 | (11.76) |
| $	au_4$ | 9.98 | (13.58) | -5.75 | (11.34) | 3.02 | (9.01) | 2.01 | (11.76) |
| $	au_{5}$ | 9.99 | (13.58) | -5.73 | (11.34) | 3.01 | (9.01) | 2.07 | (11.76) |
| Observations | 87 | | 87 | | 87 | | 87 | |
| Log Likelihood | -81.96 | | -84.27 | | -78.05 | | -79.86 | |
| McFadden's R2 | 0.283 | | 0.291 | | 0.203 | | 0.274 | |
| Likelihood ratio test | 89.39 | | 106.4 | | 62.24 | | 70.16 | |

Table shows the determinants of the economic performance of interviewed Spanish beneficiaries. The missing dummy in the variable Nace refers to 'Manufacturing'. Robust standard errors are reported in parentheses; *** , ** , * denote significance at the 1% , 5% 10% .

Table 30. Ordered Logit Estimates: Economic Performance Logit Estimates: Probability of going bankrupt

| Dependent Variable is Prob of going bankrupt | Model | | | |
|---|-------------|---------|------------------|---------|
| Variables | Coefficient | Std Err | Marginal effects | se |
| Number of proj 2005-2006 | 0.389 | (0.889) | 0.059 | (0.135) |
| Number of proj 2007-3013 | -0.060 | (0.525) | -0.009 | (0.080) |
| R&D Grant 2007-2013 | -0.514* | (0.303) | -0.079* | (0.044) |
| Last Year project | | | | |
| 2008 | -0.686 | (0.646) | -0.135 | (0.127) |
| 2009 | -3.065** | (1.381) | -0.368*** | (0.113) |
| 2010 | -1.076 | (1.150) | -0.199 | (0.192) |
| 2011 | 0.000 | (0.000) | 0.000 | (0.000) |
| Size small | -1.233* | (0.638) | -0.197** | (0.094) |
| NACE | | ` , | | ` , |
| Agrofood Industry | 0.000 | (0.000) | 0.000 | (0.000) |
| Construction | 0.807 | (0.921) | 0.106 | (0.114) |
| Services | 0.270 | (0.666) | 0.042 | (0.104) |
| Wholesale and Retail | -1.408 | (2.041) | -0.162 | (0.172) |
| NUTS 3 | | , | | , |
| Leon | 0.839 | (0.839) | 0.137 | (0.140) |
| Palencia | 0.000 | (0.000) | 0.000 | (0.000) |
| Salamanca | 0.313 | (1.186) | 0.048 | (0.186) |
| Segovia | -0.058 | (1.564) | -0.008 | (0.224) |
| Soria | 0.000 | (0.000) | 0.000 | (0.000) |
| Valladolid | -0.089 | (0.647) | -0.013 | (0.093) |
| Zamora | 0.000 | (0.000) | 0.000 | (0.000) |
| Constant | 6.232* | (3.531) | | , , , , |
| Observations | 121 | | 121 | |
| Log Likelihood | -44.43 | | | |
| McFadden's R2 | 0.177 | | | |
| Likelihood ratio test | 11.74 | | | |

Note: The Table shows the determinants of the probability of failing by comparing 97 interviewed Spanish firms with 24 failed firms in the period under investigation. The dependent variable takes on the value of 1 if the firm is failed and 0 otherwise. The missing dummy is the year 2007 for the variable 'Last Year project', Manufacturing for the variable 'Nace' and Burgos for the variable NUTS 3. Robust standard errors are reported in parentheses; ***, ** denote significance at the 1%, 5% and 10% respectively.

Table 31. Ordered Logit Estimates: Probability of facing the risk of closure/bankruptcy

Model (2)

Model (1)

| D6 Prob of facing the coslure/bankruptcy Risk | 1 | | | |
|--|-------------|---------|-------------|---------|
| Variables | Coefficient | Std Err | Coefficient | Std Err |
| Number of proj 2005-2006 | 6.354 | (4.179) | 3.563 | (2.688) |
| Number of proj 2007-2013 | 1.390 | (2.244) | 4.062 | (2.513) |
| R&D Grant 2007-2013 | -1.821 | (1.650) | -0.805 | (0.822) |
| Last year project | 2.374 | (2.767) | 0.371 | (0.993) |
| C1.5 Funding risk | 0.418** | (0.183) | 0.354** | (0.171) |
| C1.5 Market and Management risk | 0.992* | (0.595) | 0.892* | (0.476) |
| A6 Entrepreneur education | 1.525 | (2.290) | 0.088 | (0.728) |
| A7 Firm belongs to a group | 4.781 | (3.400) | 3.320 | (2.779) |
| A8 Firm spinoff university | -25.663*** | (5.751) | -19.184*** | (2.934) |
| A9 Firm spinoff company | 0.406 | (3.954) | -2.457 | (1.505) |
| C1 C2 3 2 Uni Collaboration 07-13 | 1.886 | (1.728) | 1.705 | (2.169) |
| C1 C2 4 Partnership 07-13 | 1.085 | (1.281) | 0.920 | (2.392) |
| Size Small | -0.832* | (0.446) | -1.696* | (0.873) |
| NACE | 1.259** | (0.612) | | |
| Agrofood Industry | | | 16.961*** | (1.956) |
| Construction | | | 19.364*** | (2.669) |
| Services | | | 17.598*** | (0.983) |
| Wholesale and Retail | | | 18.044*** | (2.028) |
| NUTS 3 | -0.603 | (0.368) | -0.191 | (0.139) |
| $	au_1$ | 4.781 | (5.569) | 0.757 | (2.001) |
| $	au_2$ | 4.783 | (5.569) | 0.759 | (2.001) |
| Observations | 97 | | 97 | |
| Log Likelihood | -13.40 | | -15.04 | |
| McFadden's R2 | 0.489 | | 0.426 | |
| Likelihood ratio test | 352.0 | | 926.9 | |

Source: Csil.

Dependent Variable is

The Table shows the determinants of the probability of facing the closure/bankruptcy in the near future. The dependent variable is an ordered variable ranging from 1= no risk to 3=high risk. Model 2 is the same as model 1, but in the former the variable 'Nace' is split by its components. The variables 'C1.5 Funding risk' and 'C1.5 Market and Management risk' are expressed in principal components. The missing dummy in the category Nace is Manufacturing. Robust standard errors in parentheses; ***, **, * denote significance at the 1%, 5% and 10% respectively.

Table 32. Ordered Logit Estimates: Behavioural Change

| Dependent Variable is | F2.1 Op Support l | | F2.6 Fut Collabo | | F2.7 Future Collabora | | F2.8 Future R&D exper | |
|--|----------------------|------------------|---------------------|------------------|--------------------------|------------------|--------------------------|------------------|
| Variables | Coefficien t | Std Err | Coeffici ent | Std Err | Coefficient | Std Err | Coefficient | Std Err |
| Type of change variables | | | | | | | | |
| D1.1 Widened prod and serv | -0.35 | (0.67) | -0.13 | (0.65) | 1.52*** | (0.49) | 0.64 | (0.56) |
| D1.2 Upgraded processes | -1.08 | (0.82) | 1.02 | (0.69) | 0.57 | (0.73) | -0.12 | (0.71) |
| D1.3 Increased R&D equipment | 0.69 | (0.79) | 0.29 | (0.66) | -0.49 | (0.54) | 1.45** | (0.60) |
| D1.4 Access new knowledge | -1.54*** | (0.59) | 0.71 | (0.48) | 1.28** | (0.58) | 0.24 | (0.61) |
| D1.5 Company reputation | 0.62 | (0.70) | -0.10 | (0.48) | 0.12 | (0.56) | 0.41 | (0.68) |
| D1.6 New foreign markets | 0.77 | (0.77) | -1.53 | (0.99) | -1.37 | (0.84) | 0.00 | (0.81) |
| D1.7 Work organisation | 0.72 | (0.64) | -0.14 | (0.68) | -0.05 | (0.70) | 0.34 | (0.76) |
| D1.8 New | 0.23 | (0.89) | 0.17 | (0.92) | 1.34 | (0.88) | 1.20* | (0.65) |
| employees/researchers | | (0.60) | | (0.50) | | (0.55) | | (0.50) |
| D1.9 Maintain same employees | 0.74 | (0.60) | -0.37 | (0.56) | 0.12 | (0.55) | -0.05 | (0.59) |
| Economic results and other | | | | | | | | |
| behavioural changes | 2 46*** | (0.71) | | | | | | |
| F2.2 Opinion Support by EU | 2.46*** -0.21 | (0.71) | 0.45 | (0.40) | 0.59 | (0.42) | 0.59 | (0.47) |
| D4.1 Increase Sales D4.4 Increase exports | -0.21 0.80 | (0.50) (0.54) | -0.45 0.71 | (0.40) (0.51) | 0.59 | (0.42) (0.40) | -0.00 | (0.47) (0.37) |
| D5.5 Decrease Costs | 0.00 | (0.34) | -0.35 | (0.31) | -0.49 | (0.40) | -0.22 | (0.34) |
| Past (00-13) issues related to | 0.00 | (0.40) | -0.55 | (0.30) | -0.43 | (0.54) | -0.22 | (0.54) |
| R&D | 0.27 | (0.28) | -0.10 | | -0.06 | | 0.08 | (0.17) |
| C4.1 Increased R&D budget | 0.27 | (0.20) | 0.10 | (0.24) | 0.00 | (0.19) | 0.00 | (0.17) |
| C4.2 Increased complexity R&D | 0.15 | (0.26) | 0.58* | (0.33) | 0.98** | (0.41) | 0.55* | (0.32) |
| proj | 0.15 | (0.20) | 0.50 | (0.55) | 0.50 | (0111) | 0.55 | (0.32) |
| C4.3 More ambitious R&D | -0.42 | (0.27) | 0.29 | (0.27) | -0.09 | (0.32) | 0.34 | (0.30) |
| projects | | () | | (, | | () | | () |
| Project Characteristics | | | | | | | | |
| Number of proj 2005-2006 | -1.17 | (1.05) | 0.30 | (0.91) | 1.38 | (0.90) | 1.47 | (1.08) |
| Number of proj 2007-2013 | 1.11 | (0.75) | 0.45 | (0.58) | -0.16 | (0.44) | 0.61 | (0.41) |
| R&D Grant 2007-2013 | 0.85*** | (0.28) | -0.90 | (0.62) | -0.28 | (0.31) | 0.04 | (0.36) |
| Last Year project | -0.29 | (0.42) | 0.15 | (0.32) | 0.32 | (0.40) | 0.19 | (0.34) |
| C1 C2 3 2 Uni collaboration 07- | -1.41 | (-) | | () | 0.54 | (0.56) | 0.14 | (0.26) |
| 13 | | (0.89) | 0.49* | (0.26) | | | | |
| C1 C2 4 Partnership 07-13 | 1.06 | (0.87) | 0.74 | (0.68) | 1.09 | (0.67) | 0.11 | (0.26) |
| Beneficiary Characteristics A6 Entrepreneur education | 0.54 | (0.38) | 0.63** | (0.20) | 0.15 | (0.20) | 0.27 | (0.21) |
| A7 Firm belongs to a group | 0.57 | (0.38) | 0.03 | (0.30) (0.71) | 0.15 0.54 | (0.29) (0.77) | 1.76* | (0.31) (1.00) |
| A8 Firm spinoff university | -1.45 | (0.83) (1.42) | 2.74* | (0.71) (1.46) | 0.15 | (0.77) | 2.05** | (0.86) |
| A9 Firm spinoff company | -1.94 | (1.37) | -0.53 | (0.67) | 0.05 | (0.71) | -2.06 | (1.51) |
| NACE | -0.31 | (0.21) | -0.30 | (0.24) | -0.01 | (0.24) | -0.10 | (0.17) |
| Size small | 1.89** | (0.87) | -0.41 | (0.72) | 0.25 | (0.58) | 2.28*** | (0.74) |
| NUTS 3 | 0.16 | (0.12) | -0.15 | (0.10) | -0.01 | (0.10) | 0.06 | (0.09) |
| $	au_1$ | -5.94 | (8.34) | 0.76 | (6.23) | 5.54 | (6.50) | 8.28 | (7.51) |
| τ_2 | -5.92 | (8.34) | 0.78 | (6.23) | 5.55 | (6.50) | 8.31 | (7.51) |
| $	au_3$ | -5.92 | (8.34) | 0.79 | (6.23) | 5.56 | (6.50) | 8.32 | (7.51) |
| $	au_4$ | -5.88 | (8.34) | 0.81 | (6.23) | 5.58 | (6.50) | 8.35 | (7.51) |
| Observations | 97 | | 97 | | 97 | | 97 | |
| Log Likelihood | -86.28 | | -84.27 | | -78.05 | | -91.58 | |
| McFadden's R2 | 0.232 | | 0.291 | | 0.203 | | 0.301 | |
| Likelihood ratio test | 76.74 | | 106.4 | | 62.24 | | 60.86 | |

Note: Table shows the determinants of the behavioural changes of sampled Spanish beneficiaries. Robust standard errors are reported in parentheses; *** , ** , * denote significance at the 1% , 5% 10% respectively .

Table 33. Multinomial Logit Estimates

Dependent Variable (1)
E4. Future Application
Base Outcome ("I do Not Know") 'I think so'

| D1.1 Widened prod and serv |
|--|
| D1.2 Upgraded processes -1.12 (2.02) D1.3 Increased R&D equipment 0.54 (1.48) D1.4 Access new knowledge -2.88 (1.97) D1.5 Company reputation 1.56 (1.73) D1.6 New foreign markets 6.71 (7.66) D1.7 Work organisation 1.60 (1.94) D1.8 New employees/researchers 0.65 (2.11) D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D 0.96 (0.67) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D projects 0.34 </th |
| D1.3 Increased R&D equipment 0.54 (1.48) D1.4 Access new knowledge -2.88 (1.97) D1.5 Company reputation 1.56 (1.73) D1.6 New foreign markets 6.71 (7.66) D1.7 Work organisation 1.60 (1.94) D1.8 New employees/researchers 0.65 (2.11) D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.67) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D projects 0.34 (0.61) Project Characteristics Number of pro |
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| D1.6 New foreign markets 6.71 (7.66) D1.7 Work organisation 1.60 (1.94) D1.8 New employees/researchers 0.65 (2.11) D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues -0.65 (1.01) E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 |
| D1.7 Work organisation 1.60 (1.94) D1.8 New employees/researchers 0.65 (2.11) D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.61) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| D1.8 New employees/researchers 0.65 (2.11) D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D 0.96 (0.67) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| D1.9 Maintain same employees 0.85 (1.39) Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D 0.96 (0.67) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
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| Economic Results and other behavioural changes F2.2 Opinion Support by EU 0.46 (0.79) D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.61) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
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| D4.1 Increase Sales -0.65 (1.14) D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.82) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics 0.34 (0.61) Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| D4.4 Increase Exports -1.41 (0.99) D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.62) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics 0.34 (0.61) Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| D4.5 Decrease Costs -0.65 (1.01) Opinion Application Issues -0.96 (0.99) E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D (0.62) C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| Opinion Application Issues E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| E2.1 Simplicity -0.96 (0.99) E2.2 ADE dialogue and skills on R&D 2.66* (1.48) E2.3 Time before receiving payment -0.95 (0.82) Past (00-13) issues related to R&D C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| E2.2 ADE dialogue and skills on R&D E2.3 Time before receiving payment Past (00-13) issues related to R&D C4.1 Increased R&D budget C4.2 Increased complexity R&D proj C4.3 More ambitious R&D projects Project Characteristics Number of proj 2005-2006 Number of proj 2007-2013 R&D Grant 2007-2013 E2.66* (1.48) (0.62) C4.8 (0.67) C4.9 (0.67) C4.9 (0.61) C4.9 (0.61) C4.79 (3.25) C4.79 (3.25) C5.77 (3.52) C6.14) |
| E2.3 Time before receiving payment Past (00-13) issues related to R&D C4.1 Increased R&D budget C4.2 Increased complexity R&D proj C4.3 More ambitious R&D projects Project Characteristics Number of proj 2005-2006 Number of proj 2007-2013 R&D Grant 2007-2013 (0.82) (0.83) (0.84) (0. |
| Past (00-13) issues related to R&D C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| C4.1 Increased R&D budget 0.96 (0.67) C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| C4.2 Increased complexity R&D proj 0.51 (0.74) C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| C4.3 More ambitious R&D projects 0.34 (0.61) Project Characteristics -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| Project Characteristics Number of proj 2005-2006 -4.79 (3.25) Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| Number of proj 2007-2013 5.77 (3.52) R&D Grant 2007-2013 2.05 (2.14) |
| R&D Grant 2007-2013 2.05 (2.14) |
| |
| Last Year project -2.11 (1.73) |
| C1 C2 3 2 Uni collaboration 07-13 -3.90 (2.04) |
| C1 C2 4 Partnership 07-13 -1.90 (2.04) |
| Beneficiary Characteristics (2.04) |
| A6 Entrepreneur education 3.40 (2.70) |
| A7 Firm belongs to a group 0.66 (0.70) |
| A8 Firm spinoff university 0.98 (0.78) |
| A9 Firm spinoff company -1.65 (1.01) |
| NACE -1.88 (1.01) |
| · · · |
| · · · · · · · · · · · · · · · · · · · |
| |
| Constant 4.24 (2.67) |
| Observations 97 |
| Log Likelihood -19.66 |
| McFadden's R2 0.165 |
| Likelihood ratio test 78.00 Source: Csil |

Source: Csil

Note: The Table shows the determinants of the probability of applying again in the future. The base outcome of the multinomial logit model is the group of firms that choose 'I do not know' in the question E3. Standard errors are reported in parenthesis ****, **, ** denote significance at the 1%, 5%, 10%.

Table 34. Logit Estimates, Castile and Leon

| Dependent Variable is | (1) | | (2) | | (1) | | (2) | | (1) | | (2) | |
|--|---------------|--------|--------|--------------|-----------------|--------|-----------------|---------------|------------------|----------------|-------------------|----------------|
| variable is | D1.1 Prod/ | | | Wid /serv | D1.6 Foreigi | | | New n mkts | | 3 New iploy | | 8 New iploy |
| VARIABLES Type of change | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se |
| variables | | | | | | | | | | | | |
| D1.1 Widened prod/serv | | | | | 1.06 | (1.01) | | | 3.28 * | (1.92) | | |
| D1.2 Upgraded processes | 1.80 | (1.18) | | | 1.78** | (0.82) | | | - 3.88 *** | (0.92) | | |
| D1.3 Increased R&D equipment | 0.34 | (0.96) | | | 0.64 | (0.72) | | | 3.16 *** | (0.72) | | |
| D1.4 Access new | -0.55 | (0.76) | | | 0.02 | (0.76) | | | 1.08 | (0.85) | | |
| knowledge D1.5 Company | 1.00 | (0.81) | | | 1.39 | (0.95) | | | -1.00 | (0.88) | | |
| reputation D1.6 New foreign markets | 2.67* | (1.52) | | | | | | | 2.04 | (0.91) | | |
| D1.7 Work | -2.36** | (1.16) | | | -0.25 | (0.87) | | | 3.17 *** | (1.18) | | |
| organisation D1.8 New employees/resear | 2.01 | (1.28) | | | 0.81 | (0.79) | | | | | | |
| ch D1.9 Same employees | 1.88* | (1.04) | | | 0.14 | (0.88) | | | 0.54 | (0.73) | | |
| Project Characteristics | | | | | | | | | | | | |
| Number of proj | 1.96 | (1.31) | 0.76 | (1.32) | 0.01 | (0.97) | 0.26 | (0.93) | 2.12 | (1.20) | 2.82 *** | (1.00) |
| 2005-06 Number of proj 2007-13 | 1.14* | (0.61) | 0.64 | (0.57) | -0.42 | (0.53) | 0.00 | (0.44) | 0.44 | (0.39) | - 0.16 | (0.47) |
| R&D Grant 2007- 13 (log) | -1.21** | (0.60) | 0.04 | (0.39) | 0.52 | (0.43) | 0.13 | (0.40) | 0.02 | (0.37) | 0.15 | (0.33) |
| Last Year Project Beneficiary | -0.21 | (0.36) | -0.28 | (0.38) | -0.15 | (0.42) | -0.40 | (0.38) | 0.09 | (0.44) | 0.18 | (0.31) |
| Characteristics A6 Entrepreneur education | 0.98 | (0.81) | 0.20 | (0.47) | -1.17** | (0.58) | -0.72* | (0.39) | 0.38 | (0.43) | 0.72 | (0.48) |
| A7 Firm belongs | 1.77* | (0.93) | 0.85 | (0.80) | 0.27 | (1.02) | 0.82 | (0.84) | 1.81 * | (1.00) | 1.05 | (0.79) |
| to a group A8 Firm spinoff | 1.16 | (1.48) | | | 1.74* | (0.90) | 1.84 | (1.14) | 2.33 | (1.49) | 2.84 | (1.54) |
| university A9 Firm spinoff company | -0.38 | (1.31) | 0.08 | (1.13) | 1.43 | (0.93) | 0.64 | (1.00) | 0.58 | (1.29) | * 1.71 | (1.12) |
| Size Small | 2.81*** | (0.83) | 1.80** | (0.86) | 1.94* | (1.10) | 0.47 | (1.11) | -0.08 | (0.77) | - 0.65 | (0.88) |
| NACE Agrofood Industry | 0.47 | (1.73) | 0.83 | (1.32) | -1.03 | (1.36) | 0.69 | (0.96) | - 4.14 *** | (1.29) | - 1.07 | 0.80 |
| Construction | 0.42 | (1.35) | 1.38 | (1.14) | -0.99 | (1.48) | -0.90 | (1.24) | - 2.78 *** | (0.98) | - 1.63 * | 0.97 |
| Services | -1.85 | (0.99) | -1.17 | (1.09) | -1.19 | (0.98) | - 1.74* * | (0.85) | - 3.76 *** | (1.38) | - 2.29 ** | 0.95 |
| Wholesale and Retail | -0.01 | (1.34) | -0.48 | (1.51) | 1.64 | (1.13) | 0.75 | (1.36) | - 5.21 *** | (1.69) | 1.08 | 1.08 |
| NUTS 3 | 0.08 | (0.14) | 0.04 | (0.13) | -0.18 | (0.15) | -0.16 | (0.11) | -0.11 | (0.13) | - 0.18 | (0.13) |
| Initial export share | | | -0.01 | (0.29) | | | -0.03 | (0.30) | | | 0.22 | (0.27) |
| Initial turnover | | | -0.04 | (0.25) | | | -0.37 | (0.32) | | | - | (0.22) |
| Constant | 4.17 | (7.18) | 5.03 | (7.87) | 2.86 | (8.94) | 8.41 | (7.19) | -1.05 | (8.60) | 0.27 - 3.65 | (6.63) |
| Observations | 96 | | 87 | | 96 | | 87 | | 96 | | 87 | |

| Log Likelihood | -30.15 | -38.86 | -35.26 | -40.45 | - | - | |
|------------------|--------|--------|--------|--------|------|------|--|
| | | | | | 28.3 | 41.9 | |
| | | | | | 5 | 3 | |
| McFadden's R2 | 0.402 | 0.119 | 0.318 | 0.154 | 0.55 | 0.27 | |
| | | | | | 7 | 4 | |
| Likelihood ratio | 28.95 | 11.34 | 28.71 | 19.51 | 50.4 | 20 | |
| test | | | | | 7 | | |

The Table shows the determinants of the probability of widening the range of products and services offered (D1.1), going in new foreign markets (D1.5) and hiring new employees. The missing dummy in the variable Nace refers to 'Manufacturing'. Robust standard errors are reported in parentheses ***,***,* denote significance at 1%, 5%, 10% respectively.

3.5. Analysis of aid intensity

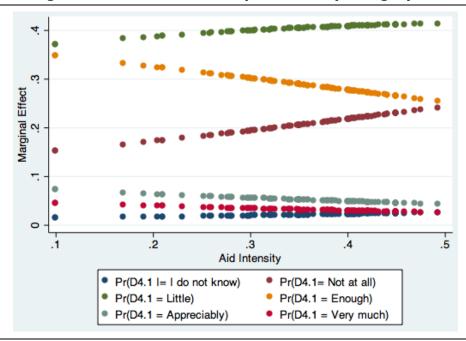
Table 35. Ordered Logit Estimates. Effect on Aid Intensity on Sales

| (1) | (2) |
|----------|---|
| | |
| coef | se |
| -1.54 | (2.28) |
| -4.42*** | (1.09) |
| -1.77** | (0.85) |
| -0.01 | (0.82) |
| 1.87** | (0.88) |
| 2.90*** | (0.99) |
| 97 | |
| -134.7 | |
| 0.00170 | |
| 0.460 | |
| | coef -1.54 -4.42*** -1.77** -0.01 1.87** 2.90*** 97 -134.7 0.00170 |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 112. Marginal Effect of Aid Intensity on Sales by Category



Source: Csil

Table 36. Marginal effect of aid intensity on Sales compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect |
|---------------|-----------------------|-------------------------|
| Enough | 0.35 | 0.35 |
| Little | 0.35 | 0.13 |
| I do not know | 0.35 | 0.05 |
| Very much | 0.36 | 0.07 |
| Not at all | 0.38 | 0.35 |
| Appreciably | 0.39 | 0.11 |

Source: Csil

Figure 113. Marginal effect of aid intensity on Sales compared to the level of aid intensity, by category

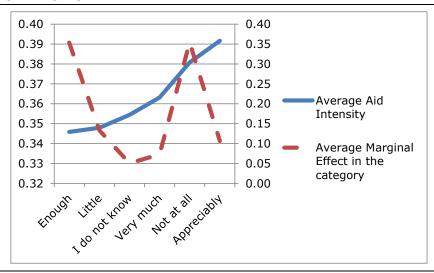


Table 37. Ordered Logit Estimates. Effect of Aid Intensity on Exports

| Dep Variable | (1) | (2) |
|------------------------|----------|--------|
| D4.4 Increased Exports | ` ' | • • |
| VARIABLES | coef | se |
| Aid_Intensity | -2.91 | (2.36) |
| Constant 1 | -3.97*** | (0.98) |
| Constant 2 | -1.18 | (0.87) |
| Constant 3 | -0.12 | (0.86) |
| Constant 4 | 1.15 | (0.88) |
| Constant 5 | 2.85*** | (1.08) |
| Observations | 97 | |
| Log Likelihood | -141.1 | |
| McFadden's R2 | 0.00539 | |
| Likelihood ratio test | 1.529 | |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 114. Marginal Effect of Aid Intensity on Exports by Category

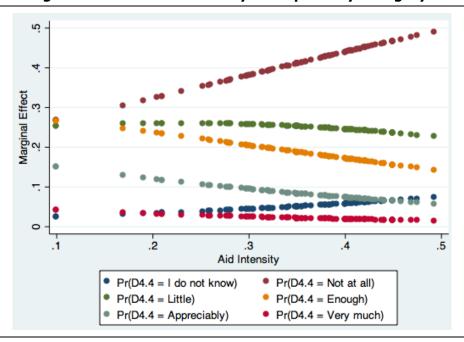
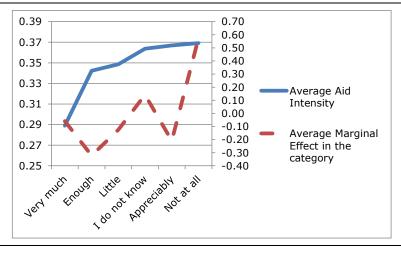


Table 38. Marginal effect of aid intensity on Exports compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect |
|---------------|------------------------------|-------------------------|
| Very much | 0.29 | -0.06 |
| Enough | 0.34 | -0.32 |
| Little | 0.35 | -0.13 |
| I do not know | 0.36 | 0.14 |
| Appreciably | 0.37 | -0.21 |
| Not at all | 0.37 | 0.57 |

Source: Csil

Figure 115. Marginal effect of aid intensity on Exports compared to the level of aid intensity, by category



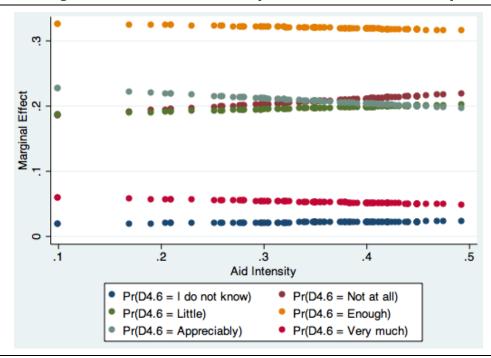
Source. Csil

Table 39. Ordered Logit Estimates. Effect of Aid Intensity on Resilience to Crisis

| Dep. Variable D4.6 Resilience to Crisis | (1) | (2) | |
|--|----------|--------|--|
| VARIABLES | coef se | | |
| Aid_Intensity | -0.55 | (2.21) | |
| Constant 1 | -4.06*** | (1.07) | |
| Constant 2 | -1.42* | (0.82) | |
| Constant 3 | -0.51 | (0.81) | |
| Constant 4 | 0.86 | (0.82) | |
| Constant 5 | 2.71*** | (0.91) | |
| Observations | 97 | | |
| Log Likelihood | -152.1 | | |
| McFadden's R2 | 0.000207 | | |
| Likelihood ratio test | 0.0630 | | |

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 116. Marginal Effect of Aid Intensity on Resilience to Crisis by Category



Source: Csil

Table 40. Marginal effect of aid intensity on Resilience to crisis compared to the level of aid intensity, by category

| Category | Average Aid Intensity | Average Marginal Effect |
|---------------|-----------------------|-------------------------|
| Very much | 0.32 | -0.03 |
| Little | 0.33 | 0.04 |
| I do not Know | 0.35 | 0.01 |
| Enough | 0.36 | -0.03 |
| Appreciably | 0.37 | -0.08 |
| Not at all | 0.38 | 0.09 |

Source: Csil

Figure 117. Marginal effect of aid intensity on Resilience to crisis compared to the level of aid intensity, by category

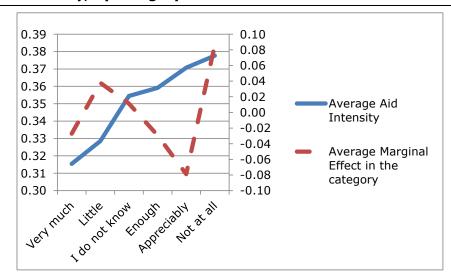


Table 41. Ordered Logit Estimates. Effect of Aid Intensity on Employment Growth

| Dep. Variable | (1) | (2) |
|-----------------------------|---------|--------|
| Employment Growth VARIABLES | coef | se |
| Aid_Intensity | 1.97 | (2.87) |
| Constant 1 | -1.79* | (1.07) |
| Constant 2 | 1.91* | (1.07) |
| Observations | 91 | |
| Log Likelihood | -71.68 | |
| McFadden's R2 | 0.00330 | |
| Likelihood ratio test | 0.475 | |

Source: Csil

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 118. Marginal Effect of Aid Intensity on Employment growth by Category

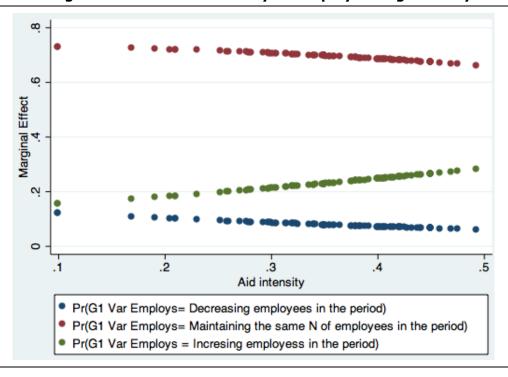
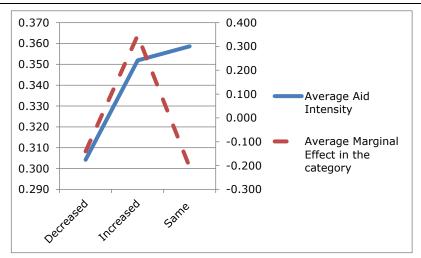


Table 42. Marginal effect of aid intensity on Employment growth compared to the level of aid intensity, by category

| Average Aid Intensity | Average Marginal Effect |
|-----------------------|--------------------------------|
| 0.30 | -0.14 |
| 0.35 | 0.34 |
| 0.36 | -0.21 |
| | 0.30 0.35 |

Source: Csil

Figure 119. Marginal effect of aid intensity on Employment growth compared to the level of aid intensity, by category



Source: Csil