



Impact evaluation

Aggregate ICEX support

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RESPONSIBLE OF THE EVALUATION

Evaluation Department
Deputy Directorate for Sustainability and Evaluation
ICEX Spain Trade & Investment

DATE OF PUBLICATION

January 2021

TYPE OF EVALUATION

Impact

TIME OF THE EVALUATION

Ex post

CODE

PEIEE_2017

EVALUATION STARTED IN YEAR

2017

EVALUATION COMPLETED IN YEAR

2020

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1 Objective of the evaluation

Ex-post impact evaluation of ICEX's overall support to gather evidence on the short- and medium-term effectiveness of the provision of services. This evaluation is part of the evaluation of the 2017–2018 Action Plan for the Internationalization of Spanish Companies.

2 What is ICEX support?

ICEX support consists of services provided to companies to help them overcome objective barriers to their internationalization process.





3. What is the purpose of ICEX's support?

Immediate (short-term) objective: to make companies more competitive.

Mediate (medium-term) objective: to ensure that improvements in competitiveness translate into sustained gains in business performance, including exports, turnover, and employment.

The intervention logic behind each type of service varies considerably in terms of implementation, resource intensity, and specific objectives. However, assuming that a company seeks the most appropriate support to address the particular barrier preventing it from achieving its international market goals, we have chosen to aggregate all types of support. This allows us to provide an initial estimate of the effect attributable to ICEX support, regardless of each company's individual needs or the timing of its engagement with ICEX.

4. Services evaluated

We have grouped all ICEX services into two categories:

Support. Instruments for foreign promotion (typically delivered by ICEX with the backing of the network of Spanish Economic and Commercial Offices abroad), the PIPE-Next and Cre100do programs, various conferences and seminars, customised services (also primarily delivered through the network), and customised advisory services.





Information. Business opportunities services, enquiries handled at any level by our personalised attention service (Ventana Global), seminars available in the Virtual Classroom, and the set-up costs service.

For this evaluation, only support services were considered; information services were excluded.

5. Evaluation questions

- Are there any observable effects on economic magnitudes among those companies that have received ICEX support?
- Which of these effects are attributable to ICEX support and to what extent?
- Are there differences in observable and attributable effects among the different types of existing companies?



6 Evaluation fact sheet

Target population: Spanish companies with international market potential.

Universe: 1,555,987 unique companies listed in the Central Business Register (DIRCE).

Time frame: 2014-2018.

Companies that benefited from at least one support service during the period: 18,709. Of these, 9,077 had received some type of ICEX support prior to 2014 (veterans), and 9,632 had not (non-veterans).

Companies that benefited from at least one information service during the period: 23,928. Of these, 3,996 had received some type of ICEX support prior to 2014 (veterans), and 19,932 had not (non-veterans).

Companies that received neither information nor support during the period: 1,513,350..

Impact estimation technique: : contribution analysis by means of coarsened exact matching (CEM) combined with the difference-in-differences method using panel data estimation.



7 Quasi-experimental design

Group	Assignment	2014	2015	2016	2017	2018
2014 Treatment	NRAND	X O1				O2
2015 Treatment	NRAND	O1	X			O2
2016 Treatment	NRAND	O1		X		O2
2017 Treatment	NRAND	O1			X	O2
2018 Treatment	NRAND	O1				X O2
Control	NRAND	O1				O2

NRAND: Self-selection; non-random assignment to the study group

X: Implementation of the treatment: support provision by ICEX

O: Observation of variables

O1: Outcome variables before requesting support

O2: Outcome variables after receiving support



8 Client segmentation

Segmentation technique: K-means clustering based on a logarithmic transformation of the variables included in the database: company age, number of employees, turnover, goods exports, export intensity, and productivity.

There are seven well-defined client types:

- Type 1. Productive micro-enterprises over 10 years old with a limited international presence.
- Type 2. Extremely-low-productive micro-enterprises less than 10 years old with a limited international presence.
- Type 3. Highly productive and export-oriented medium and large companies over 15 years old.
- Type 4. Highly productive and export-oriented micro-enterprises of recent creation.
- Type 5. Highly productive and export-oriented micro-enterprises over 10 years old.
- Type 6. Export-oriented small companies over 12 years old.
- Type 7. Low-productive micro-enterprises less than 10 years old with a limited international presence.



9. Reasons for seeking ICEX support

Companies that have not had previous ICEX support (non-veteran) turn to ICEX once they see that their export figures have increased. After receiving support, they experience a sharp rise in both turnover and exports. However, this tends to decline four years after the support began.

Companies that have had previous support (veteran) turn to ICEX again when they see a substantial drop in their export revenues (both in volume and share), and one or two years after the support they manage to maintain the previous volume, but these levels decline again about four years after the support began.

10. Evolution of goods exports after support

Companies that receive ICEX support typically experience a significant increase in goods exports during the first year after the support, although this growth diminishes from the third year onward.

There are two main groups with differentiated evolution. The first group is made of companies with some prior international experience and high productivity, which see substantial growth in the first year following support. However, by the third year, this increase is slightly lower than expected. The second group is made of companies with limited international experience that request support during a period of rising goods export figures, which also experience notable growth in the first year after support. However, by the third year, this increase is slightly less than expected as well.





11. Conclusions by company type

Based on company type, the following specific conclusions can be drawn:

- Type 1. **Productive micro-enterprises over 10 years old with a limited international presence.** For non-veteran companies, ICEX support contributes to an increase in exports, turnover, employee numbers, and productivity. For veteran companies, ICEX support is credited only with part of the increase in employee numbers and productivity.
- Type 2. **Extremely-low-productive micro-enterprises less than 10 years old with a limited international presence.** These companies saw increases across all variables of interest, although none of these gains can be attributed directly to ICEX support. Companies with prior momentum in these areas tend to leverage ICEX support effectively.
- Type 3. **Highly productive and export-oriented medium and large companies over 15 years old.** Non-veteran companies experience growth across the magnitudes of interest that can be attributed to ICEX support. For veteran companies, ICEX support leads to a decline in goods exports, but contributes to growth in turnover and employee numbers, suggesting that these companies may have launched service export lines or established production facilities abroad, partly due to prior ICEX support. Overall, growth is balanced between international and domestic markets.



- Type 4. **Highly productive and export-oriented micro-enterprises of recent creation.** Non-veteran companies experience substantial increases in exports, turnover, employee numbers, and productivity due to ICEX support, while, for veteran companies, there is no evidence that ICEX support contributes to these effects. ICEX support contributes significantly to these companies taking off very quickly, and after the first or second year of the first support, they are able to continue growing in all magnitudes on their own.
- Type 5. **Highly productive and export-oriented micro-enterprises over 10 years old.** For non-veteran companies, ICEX support contributes to an increase in turnover, number of employees and productivity, but not in the export of goods. For the veteran firms, ICEX support leads to a decrease in the export of goods, but there is an attribution to growth in turnover as well as in the number of employees and productivity. To consolidate their international strategy, these companies require additional support beyond the initial ICEX support, and in other areas. After overcoming these challenges, they can establish production abroad, which is a positive outcome that is partly attributable to prior ICEX support. Overall, growth is balanced between international and domestic markets.
- Type 6. **Export-oriented small companies over 12 years old.** For non-veteran companies, ICEX support contributes to an increase in turnover, employee numbers and productivity. For veteran companies, ICEX support is credited with an increase in turnover and productivity. ICEX support therefore contributes to the company being able to find and maintain the necessary workforce and contributes to their overall positive performance. Strong turnover without an increase in goods exports may reflect either the existence of service export lines or the setting up of production facilities abroad, which may also be a result attributable partially to prior ICEX support.



Type 7. Low-productive micro-enterprises less than 10 years old with a limited international presence. For non-veteran companies, ICEX support contributes to an increase in goods exports, turnover, and productivity. For veteran companies, ICEX support contributes to an increase in goods exports and employee numbers. ICEX support contributes to a rapid entry into the foreign market accompanied by growth in the domestic market, which, however, does not manage to consolidate, which might indicate limited initial solvency and competitiveness. For these companies, international activity tends to stem from occasional, unsolicited overseas orders rather than from a structured commercial strategy.

12 Recommendations of the evaluation

Expand the number of companies with international market potential that receive services tailored to their specific characteristics and needs. This should build on the profiles and typologies already defined, prioritizing groups according to their profile and the availability of support.

Assess the short- and medium-term impact of each type of support provided by ICEX to companies.

Provide a follow-up of the supported company so that effective and continuous counselling can be offered through additional services that anticipate their current and future needs, ensuring that the initial momentum generated by ICEX support can be sustained in the medium and long term.



These recommendations aim to serve a greater number of companies and introduce new support instruments to sustain the initial boost in foreign markets attributed to our current support services. They will require an increase in ICEX resources, including specialized financial and human resources, as well as professional profiles that currently are not found in our workforce.

13. Compliance with recommendations

The recommendations set out in this evaluation have been accepted as necessary and feasible by both the organization and those responsible for providing the various ICEX services, and they have been incorporated into the institution's 2021–2022 Strategic Plan. The implementation of these recommendations will enable improvements to be made in the provision of services, bearing in mind that the improvement process is ongoing, thanks to other evaluations that are either already underway or will be launched if necessary.