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FIRST REPORT OF THE EVALUATION PLAN OF STATE AID SA.101888 (2022/EV) ON TAX AID FOR THE REVERSAL OF THE ECONOMIC AND TAX REGIME CANARY ISLANDS

December 2023

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I. INTRODUCTION

Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union, commonly referred to as the General Block Exemption Regulation (GBER), lays down the conditions for certain State aid schemes to be considered compatible with the internal market and thus exempt from the obligation to notify the Commission for authorisation.

In particular, Article 1 (2) (a)of the1GBER, in its consolidated version, provides as follows:

'2. This Regulation shall not apply to:

a) schemes referred to in Sections 1 (with the exception of Article 15) (...) of this Regulation, if the average annual State aid budget per Member State exceeds EUR 150 million, with effect from six months after their entry into force (...). The Commission may decide that this Regulation shall continue to apply for a longer period to any of these aid schemes after having assessed the relevant evaluation plan notified by the Member State to the Commission, within 20 working days from the scheme's entry into force. Where the Commission has already extended the application of this Regulation beyond the initial six months in respect of such schemes, Member States may decide to extend them until the end of the period of application of this Regulation, provided that the Member State concerned has submitted an evaluation report in accordance with the evaluation plan approved by the Commission."

This provision concerns the aid scheme known as the 'INVERSION REF', which, in accordance with Article 36(2) of the Implementing Regulation for Law 19/1994 of 6 July 2009 amending the Economic and Tax Regime of the Canary Islands, as approved by Royal Decree 1022/2015 of 13 November 2007, consists of:

"(a) Investment incentives regulated in Article 25 of Law 19/1994 of 6 July.

b) The deduction scheme for investments in the Canary Islands provided for in Article 94 of Law 20/1991 of 7 June, and the deductions referred to in the thirteenth and fourteenth additional provisions of Law 19/1994 of 6 July, with the exception of the deduction referred to in point 4 of this Article, where the investments made are regarded as 'initial investment' in accordance with Article 6 of this Regulation.

c) The reserve for investments in the Canary Islands, in the part governed by Article 27 (4) (A) and (B) of Law 19/1994 of 6 July.

d) Other regional incentives granted by public authorities or through public funds for the implementation of an initial investment in accordance with Article 6 of this Regulation.'

On the basis of Article 11 of the GBER, Spain notified on 9 February 2022 the extension of the tax measures under this aid scheme known as the 'INVERSION REF' until 31 December 2023, as a result of the amendment introduced by Royal Decree-Law 31/2021 of 28 December in Article 27(11) of Law 19/1994 of 6 July amending the Economic and Tax Regime of the Canary Islands, applying the condition laid down in Article 1 (2) (a) of the GBER, as an average annual budget of EUR 293 million was estimated, and it is therefore necessary to submit an evaluation plan to the Commission. This extension was codified by the Commission as SA.101888.

According to Article 2 (16) of the GBER, an evaluation plan is*"a document containing at least the following minimum elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the method envisaged for carrying out the evaluation, the data collection requirements, the proposed timing of the evaluation, including the date of submission of*

1 https://eur-lex.europa.eu/legal-content/ES/TXT/PDF/?uri=CELEX:02014R0651- 20230701˙ qid = 1702389346161

the final evaluation report, the description of the independent body that will carry out the evaluation or the criteria to be used for its selection, and the modalities to ensure publicity of the evaluation."

The assessment plan was notified by Spain to the Commission on 18 July 2022, following agreement with the Canary Islands authorities. Subsequently, following the Commission's observations and comments received on 10 October 2022, Spain notified a new version of the evaluation plan on 16 December 2022. The content of the report is reproduced in the annex to this report.

At the request of the Canary Islands authorities, the Commission services were informally consulted whether the evaluation plan could be considered approved in accordance with Article 4(6) of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (codified version). The Commission services clarified that this paragraph refers to decisions on the existence of State aid, compatibility or initiation of the formal investigation procedure and that an express decision was required as follows from Article 1 (2) (a) of the GBER, as the 6-month period envisaged would allow to cover the time needed to examine the evaluation plan and to be able to approve it. During this consultation, the Commission services suggested using the amendment to the GBER recently approved by the Commission on 9 March 2023 (published in the OJEU on 30 June) to adopt a decision on an evaluation plan covering the period 2022-2026, in line with the new GBER validity.

Following this recommendation, an update of the evaluation plan was agreed with the Canary Islands authorities at a meeting held on 17 March at the Secretary of State for Finance. Thus, prior to the meeting with the Commission services on 18 April, a first draft update of the evaluation plan was consulted with the authorities of the Canary Islands to notify it after the publication of the amendment to the GBER in the OJEU. This proposal for an update envisaged four reports: the first of these should be presented in November 2023 with the aim of providing a basis for the prolongation of the aid scheme for the period 2024-2026, and would consist of monitoring result indicators; the second report is expected to be presented in December 2024 and would cover the period 2015-2022; the third report should be presented in November 2026 in order to justify the subsequent extension; the latest report is expected to be submitted in December 2027, covering the period 2015-2025, and would serve to justify the subsequent extension of the aid scheme under the new Regulation succeeding the GBER or prolonging its duration.

In May 2023, the Commission services requested notification of the prolongation of the aid scheme "REF INVERSION" before July. This would allow for a single decision on the associated evaluation plan, which would cover the whole period 2022-2026. It also involved notifying the updated plan.

Since it was not possible at that time to notify a new amendment to Law 19/1994 with the extension of the period of application, it was agreed with the Commission that it intended to extend the aid scheme until 31 December 2026 and to send a language waiver letter so that the authorisation decision could be drafted in English so that it could be dealt with more quickly. These circumstances were brought to the attention of the Canary Islands authorities on 10 May and the letters were sent to the Commission on 24 May, via the Permanent Representation of Spain to the European Union.

The Commission adopted on 27 June the decision on aid SA.101888 (2022/EV) 2approving the evaluation plan in the version notified in December 2022.

In order to implement the reports provided for in the evaluation plan authorised by the Commission and to be able to present the first results in November 2023 and thus justify the subsequent extension of the aid scheme until 31 December 2026, two cooperation agreements published in

2 https://ec.europa.eu/competition/state_aid/cases1/202327/SA_101888_30800689-0000-CCF6-9B1C-9C553363BA24_36_1.pdf

the Official State Gazette on 12 September and 12 October 2023 were signed.

As the Autonomous Community of the Canary Islands has been responsible for drawing up the part of the first report on the evaluation of the State aid scheme 'REF INVERSION' as regards the tax on transfers of assets and documented legal acts (ITPAJD) and the Canary Islands General Indirect Tax (IGIC) managed by the Canary Islands Tax Agency (ATC), for this purpose, the ATC and the State Tax Administration Agency (AEAT) signed an agreement on 28 July. published in the Official State Gazette of 12 September 2023 by Resolution of 6 September of the Directorate of the Planning and Institutional Relations Service of the TSA,3pursuant to which the ATC instructed the AEAT to process certain data from the ATC relating to ITPAJD and IGIC and AEAT relating to personal income tax (PIT) and corporation tax (IS). Specifically, the ATC first submits to the AEAT information on ITPAJD and IGIC and AEAT forms a group of beneficiaries and non-beneficiaries of the tax measures and supplements the information received from the ATC, incorporating tax data, relating to personal income tax and IS, and anonymised all the resulting information; this action is necessary to be dealt with by the statistical staff assigned to the Strategy, Studies and Service Inspectorate of the ATC Audit Unit.

In turn, as the Instituto de Estudios Fiscales (Instituto de Estudios Fiscales – IEF) has been responsible for drawing up the part of the report as regards the deduction for investments in the Canary Islands and the reserve for investments in the Canary Islands, managed by the AEAT, the AEAT, the National Statistics Institute and the IEF on 7 September. by which the INE makes available to the IEF the anonymised information of all the entities that are part of the Business Innovation Survey and the Statistics on R & D Activities and the AEAT the anonymised tax information of all these entities, as well as to the group of companies that, although not part of the Business Innovation Survey and the Statistics on R & D activities, have benefited from the deduction for investments in the Canary Islands and the Canary Islands Investment Reserve. the INE and the AEAT agree to share common pseudo-identifiers within the group of companies to be studied, in order to maintain the security requirements in the processing of tax and statistical information, and their reserved nature, based on the provisions of Article 95 of General Tax Law 58/2003 of 17 December 2003 and Law 12/1989 of 9 May 2007 on the Public Statistical Function. This cooperation agreement was published in the Official State Gazette on 12 October by Resolution of 11 October 2023 of the Deputy Secretariat of the Ministry of the Presidency, Relations with the Parliament and Democratic Memorya4.

Both agreements contain the clauses relating to their subject matter and purpose, recipients of the information supplied, the obligations of the parties, the protection of the data submitted by the AEAT, processing of personal data, the obligation to keep the data, the effects of the data supplied, the organisation for the implementation of the agreement and settlement of disputes, the period of validity, termination of the agreement, consequences applicable in the event of non-compliance, financing, amendment regime, administrative nature and competent jurisdiction, and the annexes set out the details that the entities will submit for each tax.

In addition, the agreement between AEAT, INE and IEF contains clauses on access to information by the IEF research team and its composition.

Although the INE and AEAT brought forward the processing of the data without waiting for the signature of the agreement with the IEF, given the complexity of their analysis, the shortening of the time taken by the investigators to draw up the first reports as a direct consequence of the delay in the finalisation of the agreements resulting from the delay in the authorisation decision and the previous issues that affected the draft agreements, an extension of one additional month was requested in order to submit the first report in

3 https://www.boe.es/boe/dias/2023/09/12/pdfs/BOE-A-2023-19306.pdf
4 https://www.boe.es/boe/dias/2023/10/12/pdfs/BOE-A-2023-21132.pdf

December, which was authorised by the Commission services on 19 October.

The following pages present the reports submitted by the IEF and the ATC, the first conclusions and the information submitted when the modification of the evaluation plan was notified in December 2022 as requested by the Commission services.

When the Commission is notified of the amendment to Law 19/1994 with the extension of the period of validity of the aid scheme 'REVESTING', the updated evaluation plan covering the period up to 2026 will have to be submitted simultaneously, so that the next report will not be that provided for in the evaluation plan notified in December 2022 but the one included in the notified updated evaluation plan, which will have a shorter temporal scope (period 2015-2022), as it is not possible to ensure the availability of the data for the financial year 2023 in sufficient time to be able to work on them.

Finally, the amounts notified to the Commission via an application (SARI2, *State Aid Reporting Interactive 2*), pursuant to Article 6 of Commission Regulation (EC) No 794/2004 of 21 April 2004 laying down detailed rules for the application of Council Regulation (EU) 2015/1589 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, are set out below. amounts showing the quantitative importance of the aid scheme whose impact on undertakings is assessed in this first report.

Table 1: 'REF INVESTMENT': AID SA.40256 (IN THE PERIOD 2015-2020), SA.61314 (IN 2021)

	2015	2016	2017	2018	2019	2020	2021
Total*(million EUR)*	**143,90**	**311,29**	**225,95**	**292,96**	**303.37**	**219,62**	**289,91**

11. FIRST EVALUATION REPORT OF THE STATE AID SCHEME 'REF INVESTMENT' AS REGARDS THE DEDUCTION FOR INVESTMENTS IN THE CANARY ISLANDS AND THE RESERVE FOR INVESTMENTS IN THE CANARY ISLANDS

11.1. INTRODUCTION

The Plan for the assessment of regional investment aid of a fiscal nature under the Canary Islands' Economic and Tax Regime (REF) (SA.101888 (2022/EV)), notified on 18 July 2022 and approved by the European Commission in its decision of 27 June 2023, commits the submission of a first monitoring report on the result indicators. In order to comply with this commitment in this chapter, the assessment of the two tax benefits applicable to income taxes is brought forward, so that the European Commission assesses the appropriateness of the methodology used and incorporates potential comments or suggestions with a view to including them in the next report to be submitted by the end of 2024.

Firstly, the evolution of the result indicators is presented, with a description of the databases used in the analyses, and the tables of statistics describing the evolution of these indicators are presented below. Secondly, the impact assessment of the Investment Deduction in the Canary Islands (CID) and finally the assessment of the Canary Islands Investment Reserve (RIC) is presented. Both evaluations follow the same structure, with a descriptive analysis of the beneficiaries and the main evaluation variables followed by the methodology used in the impact assessment and its results.

11.2. PROGRESS IN RESULT INDICATORS

1. DATABASES

This section uses information from two government databases. The first source of data is the National Tax Administration Agency (AEAT), which provides the corporate tax information for a sample of companies, with data from models 200 and 282 for the period 2015-2019, and which is selected as indicated in the following section.

Model 200 contains the following information on companies in the Spanish territory:

- Anonymised identifier.
- Special scheme for the Canary Islands or SAC entity.
- Provincial office.
- Permanent and non-permanent staff.
- Accounting items such as non-current assets, intangible assets, plant and equipment, current assets, total assets, net worth, current and non-current liabilities, amount of turnover, personal expense, sales, operating result.
- Investment reserve in the Canary Islands, increases and decreases.
- Total, deductions of investments in the Canary Islands.
- Total, deductions, broken down by amount of deductions, by type, R & D, innovation, film productions, live performances, job creation, investment in profits, etc.

Model 282 contains annual information on companies that have received aid under the Canary Islands' Economic and Tax Regime and other State aid5. This aid is classified as:

- Regional operating aid, differentiating between industry and other sectors, and broken down by different categories: deduction for non-initial incentives in the Canary Islands, Reserve for Investment in the Canary Islands (RIC), transport aid, etc.
- Regional investment aid, disaggregating by terms such as investment incentives, deduction for initial investments in the Canary Islands, RIC, etc.

The second source of data is the Annual Business Innovation Survey of the National Statistical Institute (INE) for the period 2015-2021, with a sample size of 40.000 enterprises across the national territory. The population area corresponds to the agricultural, industrial, construction and service enterprises with 10 employees or more, whose main economic activity corresponds to sections A, N, P (except branch 854), Q, R, and S (except branch 94) of CNAE-2009. The reference period is the year immediately preceding the year of the survey, however, the variables related to the innovations implemented by the enterprise refer to three years prior to the implementation of the statistical operation, in order to facilitate international comparability.

The Business Innovation Survey contains the following variables:

- Main economic activity.
- Region, financial control and type of enterprise.
- Size or size of the undertaking, through turnover or staff.
- Gross investment in tangible and intangible goods.
- Staff, by gender, by type of remuneration.
- Innovation, in new products and business processes, differentiating between the

This information5 comes from an information declaration, the incorrect completion of which has no legal effect on reporting companies, so it is not as precise as would be desirable.

production of services, distribution systems, marketing and sales or information systems, among others.

- Expenditure on research and development, or innovation, internal and external.
- Number of people in research, disaggregated by age, gender, level of education, type of position.
- Aid for R & D & I, by type of funder.
- Regionalisation of resources and expenditure.
- Cooperation on innovation.
- Number of patents.

Below is the process of selecting the sample of companies carried out by the two institutions, AEAT and INE, which generates the final database used in the evaluations.

2. SAMPLE SELECTION OF ENTERPRISES

Initially, the AEAT selects a group of registrants of Form 200 and Form 282 for the financial years 2015 to 2019 that meet the following requirements:

For model 200, registrants that have benefited from the Canary Islands REF are selected and have information in any of the following brands/items in any of the years 2015-2019:

- Marks R29 (Special Canary Islands scheme) or R15 (until 2019 was called Entidad SAC and 2019 Entidad SAC without fiscal consolidation) or R79 (only in 2019 Entidad SAC in fiscal consolidation)
- One of the items in the table “Deductions Investment in the Canary Islands with increased limits” applied.
- One of the items in the table ‘Special scheme for the reserve for investment in the Canary Islands (Law 19/1994)’
- Have a value under item C403 (Reserve for Investment in the Canary Islands (Law 19/1994) Auments) or C404 (Reserve for Investment in the Canary Islands (Law 19/1994) Detailed)

Once the AEAT has selected this group of companies (64.045, of which 64.009 registers are then selected), the INE is responsible for anonymising it and returns it to the AEAT. The Statistical Institute also provides the AEAT with an anonymised file with the group of companies that are part of the Business Innovation Survey and the statistics on R & D activities for the period 2015 to 2019. The AEAT receives the INE file with 88.825 records, identifying it, 3 NIF not identified by the AEAT and 310 duplicates have been deleted. A final file with 148.942 records is then created, which is the association of the group sent by the INE and the group selected by the AEAT. This file is cross-checked with the data in form 200 of corporate tax and model 282 for the years 2015 to 2019 and generates a single nn filein which the variables requested from the AEAT are added (see the Annex to section II.3) 6 and a new variable, known as a cross-section, which takes the following values:

- 01: recording in AEAT file and not in INE (60.427 records)
- 10: record in INE and non-AEAT file (84.933 records)

6 The final file contains 148.942 records with the requested information, for a total of 981 variables.

- 11: recording in both files (3.582 records)

3. DESCRIPTIVE STATISTICS TABLES

Following the integration of the files provided by the INE and the AEAT, the following sections of this chapter analyse the evolution of the result indicators set out in Table 4.1.1 of the Evaluation Plan approved by the European Commission. The analyses are conditioned by the subset of data used:

- Table 1: does investment aid facilitate job creation? Indicator: number of jobs created. Information sample: all companies resident in the Canary Islands (in the AEAT or INE file).
- Table 2: does the way the CRM materialise in job creation facilitate the creation of new jobs in beneficiary companies? Indicator: number of jobs created in beneficiary enterprises. Information sample: companies using the CRP (endowment and use).
- Table 3: what is the effect of the investment aid in the REF on the Canary Islands' production structure? Indicator: number of enterprises under the different CNAE categorisation. Information sample: Canary Islands companies after *matching AEAT* – Statistics from the INE of the Directory of Companies in the Canary Islands.
- Table 4: to what extent do the Research and Development REF investment aid incentivise? Does the intensity of technological innovation increase? Indicator: R & D expenditure in high-tech and technology-innovation intensity sectors (expenditure on innovative activities/turnover). Information sample: Canary Islands companies after *matching AEAT* – Statistics from the INE of the Directory of Companies in the Canary Islands.

Table 1 shows the average and median number of employees in the Canary Islands companies analysed. To this end, prior information from the AEAT creates the variable that captures the total employment (*employtot)* declared by the company during the year as the sum of permanent staff (Employees*)* and non-permanent staff (Emploat*)*in each year 't' in company i. As can be seen from the average size of Canary Islands enterprises, as measured by the average number of employees over the period. The difference between average and median also reflects the asymmetry of distribution.

Table 1: number of jobs in Canary Islands enterprises

Year	number of enterprises	average	Median
2015	46.906	5,73	1
2016	49.446	7,20	1
2017	51.360	6,15	1
2018	52.045	6,39	1
2019	52.828	6,45	1

Source: own elaboration

The Canary Islands companies that have allocated funds to the ICR in the period analysed are then selected. For this purpose, the variable is defined from the database:

- *SiUsaRICit* = takes value 1 if company i in year t has in model 200 box C404 > 0 and 0 otherwise.

Table 2 shows the average number of employees of the Canary Islands companies benefiting from the ICR depending on whether or not that year had RIC. As shown in Table 2a in all years of the period, the number of companies not using the tax benefit is much higher than the number of companies using it, and the average size of the companies using the reserve is higher than those that do not use this tax benefit.

Table 2a: number of jobs in Canary Islands companies, depending on whether or not they use the ICR in that year

	Does not use RIC			If you use RIC		
Year	No of undertakings	Average	Median	No of undertakings	Average	Median
2015	42.691	4,74	1	4.215	15,72	4
2016	44.453	4,92	1	4.993	27,52	4
2017	45.759	4,93	1	5.601	16,09	4
2018	46.363	5,32	1	5.682	15,19	5
2019	47.127	5,42	1	5.701	14,94	5

Source: produced in-house.

For companies that used the ICR in any financial year of the period under review, the evolution of employment from the first year in which it was used is presented. Therefore, the moment '0' refers to the year (between 2015 and 2019) in which the CRP was provided, the time -1 refers to the year preceding the provision of the CRP, value 1 indicates the year following the first year provided by the CRP, and so on. For each time of time, the average employment for the years before and after the first use of the CRP has been calculated. In addition, using information from model 282, the analysis is also disaggregated according to whether the use of the CRP qualifies as investment aid or operating aid. As can be seen from both average and median employment growth after the use of the tax benefit (Table 2b). However, in order to isolate the causal effect of the tax benefit on job creation, an impact assessment is required.

Table 2b: number of jobs in Canary Islands companies benefiting from the ICR, depending on the year for which the CRP starts to be used. Difference between use for investment or operation

	RIC			ICM investment			RIC-Operating		
Year	**No of enterprises**	**Average**	**Average na**	**No of enterprises**	**Average**	**Median**	**No of enterprises**	**Average**	**Median**
— 4	5	28,40	12	159	14,46	3	149	14,38	4
— 3	44	11,39	2	389	18,92	4	395	13,06	3
— 2	201	9,86	2	708	16,75	5	782	12,51	4
— 1	525	8,75	3	1127	15,51	5	1246	13,85	5
0	1574	14,08	4	1574	15,97	5	1574	16,40	5
1	1564	16,07	5	1385	17,55	6	1364	17,73	6
2	1478	17,96	6	1096	17,62	7	1081	19,53	7
3	1250	20,68	7	747	19,00	7	675	24,07	8
4	906	24,63	8	362	20,11	8	281	26,83	8

Source: produced in-house.

Below is the information on the production structure of companies in the Canary Islands. However, the tax information provided does not contain the variable collected by the company's CNAE group, so in order to calculate some indicators, there is an obligation to use a small number of companies from the AEAT-INE *matching*, which may affect the robustness of the results if extrapolated to the entire population of companies resident in the Canary Islands. In other words, the results of this section are not entirely reliable and would be desirable due to the small sample size available. For the analyses to be carried out in the partial report to be submitted at the end of 2024, information on the CNAE codes will be requested from the AEAT to ensure the robustness of the results.

First, the 'intensity' of use of the ICR and CID is calculated by sector of activity. The file obtained with the *AEAT-INE matching*, which incorporates the CNAE variable, determines the number of observations (No of companies X times of time in panel 2015-2019) in each CNAE letter and calculates the number of times they use the RIC. Table 3 shows the intensity of use of the CRM

and CID of Canary Islands companies in each sector of activity of CNAE and the evolution of the number of companies during the period under review.

As can beseen in Table 3, the most intensive ICD and ICD companies belong to the following groups of CNAE 2009: Energy, gas, steam and water supply (Group D), Real Estate Activities (Group L), Other Services – Associative Activities (Group S), Hotels (Group I), Financial and Insurance Activities (Group K).

Table 3: number of Canary Islands companies under the different CNAE categorisation and intensity of use of ICD and ICD in the period analysed

	Intensity of use RIC and CID	Number of enterprises (with information from the INE DIRCE)					
Activity		2015	2016	2017	2018	2019	2020
A	38,65						
B	29,41	43	43	47	50	49	46
C	46,83	4.243	4.269	4.468	4.808	4.990	4.907
D	71,43	256	253	267	306	199	192
E	38,12	453	442	472	500	485	511
F	29,05	14.230	14.589	15.108	15.938	17.250	16.951
G	46,48	32.856	32.538	32.854	33.196	33.657	32.570
H	41,88	8.938	8.866	8.983	9.110	9.042	9.109
I	50,09	15.220	15.393	16.006	16.558	16.851	16.787
J	34,14	2.066	2.167	2.337	2.570	2.641	2.699
K	47,06	2.685	2.798	2.959	2.937	2.943	3.053
L	52,63	5.593	6.044	6.570	7.044	7.266	7.437
M	34,63	15.386	15.937	16.874	17.671	18.768	19.048
N	34,96	8.960	9.386	9.856	10.085	10.586	10.963
P	33,33	3.271	3.528	3.890	4.043	4.124	4.506
Q	35,42	6.449	6.670	6.972	7.166	7.417	7.699
R	35,25	4.213	4.420	4.756	4.776	5.450	5.745
S	50,00	7.976	8.546	9.156	9.345	9.919	10.512
Total companies		132..838	135889	141.575	146.103	151.637	152.735

Source: produced in-house.

Secondly, in order to analyse how the production structure in the Canary Islands has evolved in the period 2015-2019, the companies existing in the Canary Islands, distributed by letter of CNAE, are selected using the database of the Central Directory of Enterprises (DIRCE) of the INE. As can be seen from Figure 1, the CNAE 2009 groups where the largest number of companies (with information from the INE DIRCE) are classified in groups G (wholesale and retail trade), M (Professional, Scientific and Technical Activities), I (Hotels) and F (Construction). Overall, it is noted that in most NECAs groups analysed there is a growing trend in the number of companies.

Figure 1: number of enterprises (with information from the INE DIRCE)

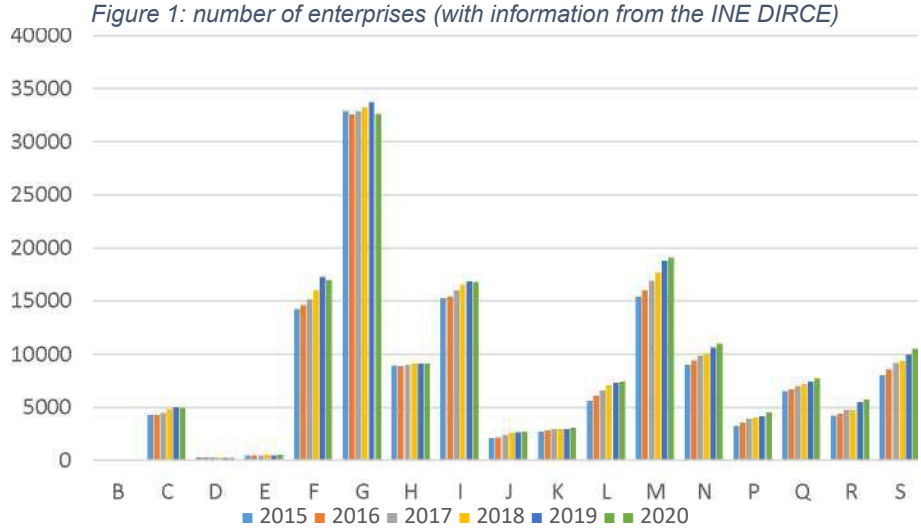


Table 4a presents the expenditure on innovation activities of the companies selected for companies with more than 200 employees, with data from the *INE-AEAT matching*. Next, it is determined how many companies spend on R & D & I each year and the percentage this represents in terms of their turnover, which are derived from the INE's Business Innovation Survey. The number of observations available in each cell for statistics (enterprises with more than 200 employees) is initially presented. As can be seen, the sectors of activity that spend most on R & D & I are G, (Wholesale and retail trade; Repair of motor vehicles and motorcycles), H (Transport and Storage), I (Hotels and restaurants), N (Administrative activities and auxiliary services) and Q (Health and Social Services Activities).

Table 4a: number of enterprises in each sector of activity/year studied

CNAE sector	2015	2016	2017	2018	2019
A	3	2	3	2	2
C	6	4	3	6	5
E	4	4	5	6	5
F				1	1
G	27	30	29	29	26
H	13	13	10	12	9
I	42	53	56	60	60
J	2	2	1	1	2
K	1	1	1	1	1
L	2	2	2	2	3
M	3	3	2	2	2
N	18	22	15	17	15
Q	16	15	14	15	15
R	2	3	4	7	7
S	1	1	1	1	1

Source: produced in-house.

Table 4b presents the average expenditure in each year/CNAE of the companies listed in Table 4a. The companies with the highest spending on R & D & I belong to groups K (Financial and Insurance Activities) and H (Transport and Storage).

Table 4b: average R & D & I expenditure per sector of activity in the period 2015 to 2019. Companies with more than 200 employees

CNAE sector	2015	2016	2017	2018	2019	Average period
A	0,00	0,00	0,00	0,00	0,00	0,00
C	6416,67	31181,75	0,00	310256,50	25597,20	89698,00

E	132052,50	102843,75	0,00	0,00	0,00	39149,38
F				9350,00	0,00	4675,00
G	43215,85	16525,50	25609,69	107206,24	73873,77	52730,30
H	108431,69	267371,54	67342,40	78929,42	151938,19	354043,09
I	10872,02	4804,47	17126,95	366186,73	62764,40	101134,46
J	247544,50	144362,00	0,00	0,00	0,00	97976,63
K	452906,00	262123,00	3816260,00	2543943,00	557539,00	1526554,20
L	0,00	0,00	0,00	0,00	33333,33	9090,91
M	0,00	0,00	0,00	67000,00	53000,00	20000,00
N	750,00	12641,41	3333,33	22073,76	42836,00	15108,10
Q	23082,56	6501,67	0,00	76792,13	81491,13	37881,27
R	0,00	0,00	0,00	4256,00	0,00	12953,04
S	0,00	0,00	0,00	0,00	100000,00	20000,00

Source: produced in-house.

Finally, Table 4c presents the intensity of technological innovation measured by expenditure innovative activities/turnover X 100). As can be seen, the most innovation-intensive enterprises belong to the groups: K (Financial and Insurance Activities), H (Transport and Storage), I (Hospitality), J (Information and Communications) Q (Health and Social Services Activities).

However, very few companies are involved and the results may be affected.

Table 4c: intensity of technological innovation (expenditure on innovative activities/turnover X 100)

CNAE sector	2015	2016	2017	2018	2019	average period
A	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
C	0.01 %	0.04 %	0.00 %	0.37 %	0.04 %	0.11 %
E	0.25 %	0.20 %	0.00 %	0.00 %	0.00 %	0.08 %
F				0.04 %	0.00 %	0.02 %
G	0.06 %	0.04 %	0.05 %	0.18 %	0.12 %	0.09 %
H	0.10 %	0.28 %	0.11 %	0.16 %	3.33 %	0.67 %
I	0.04 %	0.02 %	0.05 %	1.57 %	0.12 %	0.39 %
J	1.22 %	0.72 %	0.00 %	0.00 %	0.00 %	0.49 %
K	0.56 %	0.34 %	**4.36 %**	3.21 %	0.69 %	1.83 %
L	0.00 %	0.00 %	0.00 %	0.00 %	0.05 %	0.01 %
M	0.00 %	0.00 %	0.00 %	0.25 %	0.17 %	0.07 %
N	0.01 %	0.08 %	0.00 %	0.16 %	0.29 %	0.10 %
Q	0.91 %	0.01 %	0.00 %	0.51 %	0.47 %	0.39 %
R	0.00 %	0.00 %	0.00 %	0.06 %	0.00 %	0.02 %
S	0.00 %	0.00 %	0.00 %	0.00 %	0.59 %	0.12 %

Source: produced in-house.

II.3. IMPACT ASSESSMENT OF THE DEDUCTION FOR INVESTMENTS IN THE CANARY ISLANDS (CID)7

1. INTRODUCTION

Once the files provided by the AEAT and INE have been integrated, the following analyses are carried out in the following sections, which are conditional on the data subset used in section II.2.2 of this chapter:

7 All the economic variables shown in the tables and figures in the document are expressed in euro cent.

1. Analysis of beneficiaries: selection of companies that have used DIC (box C590 of the Corporate Tax Form 200 with positive information).
2. Analysis of the use of deductions to incentivise investment: the companies resident in the Canary Islands that use the CID and companies resident in the rest of the Autonomous Communities that submit deductions for investment in certain activities are considered.
3. Impact assessment: using the companies resident in the Canary Islands and in the other Autonomous Communities contained in both the AEAT and INE files. In this database there are both companies that make deductions for investment and not.

The analysis of the companies resident in the Canary Islands using the CID is presented below.

2. DESCRIPTIVE ANALYSIS OF BENEFICIARIES

Forthis analysis, we consider data from the AEAT on companies resident in the Canary Islands which used the CID in some of the years 2015-2019. On the basis of variable C590 of the CIT Form 200 return, a dicotomic variable is generated which shows whether a company has used the deduction in a given financial year, referred to as *'UsaDIC$_{it}$'*.

$$UsaDIC_{it} \quad \{1 \ if \ box_{C590\,it} > 0 \ | \ otherwise$$

Where the variable *'$box_{C590\,it}$'* collects the amount of the CID of enterprise *i* in year *t*, therefore UsaDIC $_{it}$ indicates whether enterprise "i" in year "t" has used the CID (positive value of the variable).

Table 5 shows the number and percentage of companies resident in the Canary Islands that have used this deduction in the various years.

Table 5: number and percentage of Canary Islands companies using the CID

ICD use\ year	2015	2016	2017	2018	2019	Average
No	42 158 (89.8 %)	44 068 (88.1 %)	45 253 (88.1 %)	45 731 (87.9 %)	46 555 (88.1 %)	(88.6 %)
Yes	4 748 (10.1 %)	5 378 (10.9 %)	6 107 (11.9 %)	6 314 (12.1 %)	6 273 (11.9 %)	(11.4 %)

Source: produced in-house.

As can be seen from 10 % to 12 % of the companies analysed in the Canary Islands use this deduction. The graph showing the evolution of the number of beneficiary companies and the average amount of this deduction in the period 2015-2019 is shown below.

Figure 2: evolution of number of CID beneficiaries and average amount.

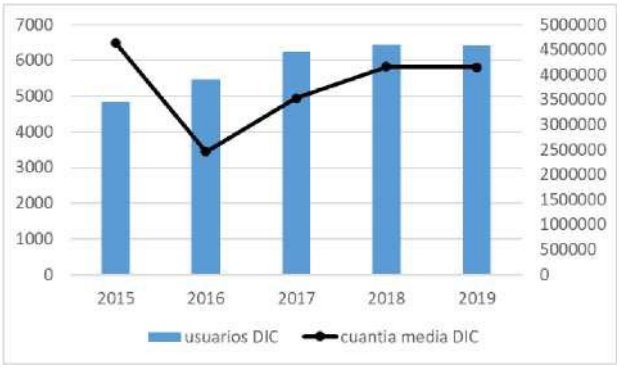
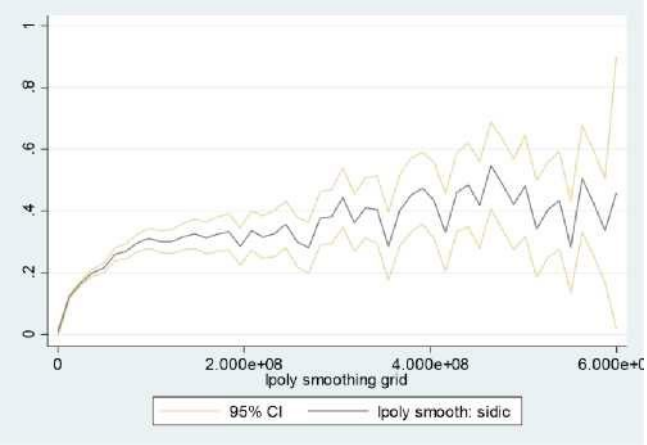


Figure 2 shows an increase in the number of enterprises using the CID from 4.780 in 2015 to 6.273 in 2019, with an annual growth rate of 8 %. The average amount of the deduction is EUR 41,480 per undertaking per year in the period under review.

The relationship between the use of the tax benefit and the size of the business is analysed below. Figure 3 shows, for the year 2019, the probability of using the CID based on the company's turnover and the 95 % confidence intervals using non-parametric estimators $\hat{E}\,(UsaDIC_{it} = 1 \,|\, Business\ Cifra)$. The non-parametric local polinome method has been used for this estimate.

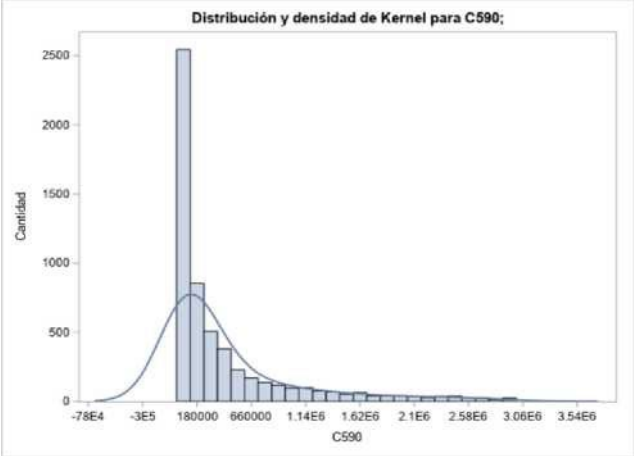
Figure 3: probability of using the CID on the basis of turnover n.e.s.E (UsaDIC_it = 1 | Business Cifra) and 95 % Trusted interval (IC95). Year 2019



As can be seen in Figure 3, there is a positive relationship between the business size and the likelihood of benefiting from this deduction. There is a significant increase in the likelihood of use of the tax benefit for companies with a turnover of more than EUR 1,5 million, where the probability of benefiting from this deduction is 30-35 %. From this threshold, the probability continues to increase to 50 % in the companies with the highest turnover.

Figure 4shows the frequency histogram of the distribution of the deduction and the estimation of its density function in the financial year 2019. As can be seen, the vast majority of companies have small amounts of CIDs, with a queue to the right, reflecting the existence of few companies with high deduction amounts in the 2019 financial year.

Figure 4: ICD frequency histogram for year 2019 for enterprises



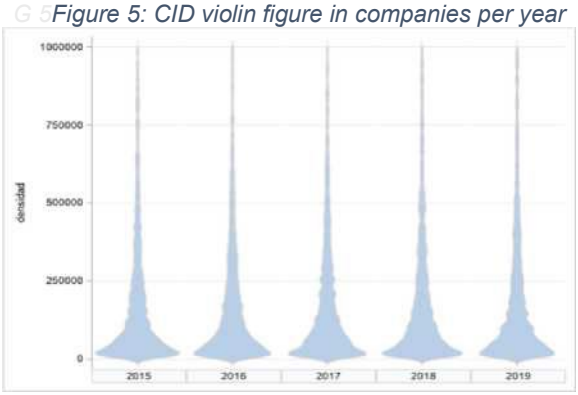
This result is confirmed by the table of the main figures of the distribution of the CID in 2019, where 75 % of the observations with the lowest value are quite concentrated (values below EUR 7,000), and then a queue on the right with amounts exceeding EUR 30,000 for 5 % of the most intensively using this figure.

Table 6: quantification of the distribution of the CID of companies using the CID in the year 2019

Quantile C590	5	10	25	50	75	90	95
	10725	19475	54700	197010	769625	2923388	7608466

Figure 5 shows the evolution of the number of companies that used the CID each year and their size. As can be seen, there are no major differences in the years of the period under review, as there are no significant changes in the distribution of the number of beneficiaries by amount over the years. Most companies use the CID in small amounts, with a tail upwards showing that the number of companies with high amounts of deduction is small.

Figure 5: CID violin figure in companies per year



Figures 6, 7 and 8 show the relationship between the use of the CID and the size of the business. Figure 6 groups together the number of companies resident in the Canary Islands by ventiles of their turnover in the financial year 2019. It is noted that the CID is used more intensively in companies with higher turnover figures (1st^{quartile} turnover takes the value of EUR 175,000, median is EUR 511,000 and 3st^{quartile} is EUR 1,51 million), mainly 10 % of island companies with the highest turnover, with the value of turnover associated with the 90 figure being EUR 4,96 million.

Figure 6: distribution of the average CID according to the ventile of the turnover of the Canary Islands enterprise. Year 2019

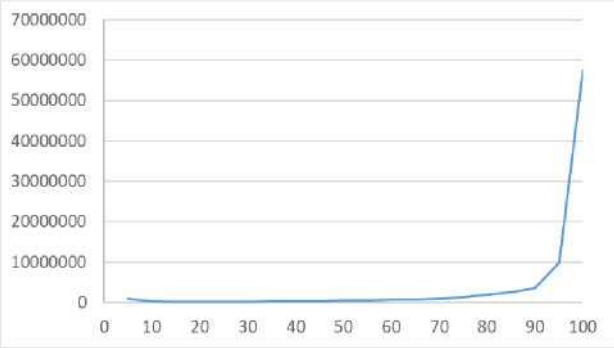


Figure 7 presents the estimate of the average amount based on turnover using non-parametric estimators, E (C590 | turnover), and confidence intervals, for the financial year 2019, using a non-parametric approximation of local polinomes. As can be seen as the size of the company also increases the size of the CID. However, the confidence intervals start to be larger when the turnover is EUR 2 million in turnover, due to the small number of these companies in the sample of companies, which affects the accuracy of the estimates obtained.

Figure 7: average CID based on turnover, E (C590 | UsarDIC = 1, figure neg) and 95 % confidence intervals (IC95). Year 2019

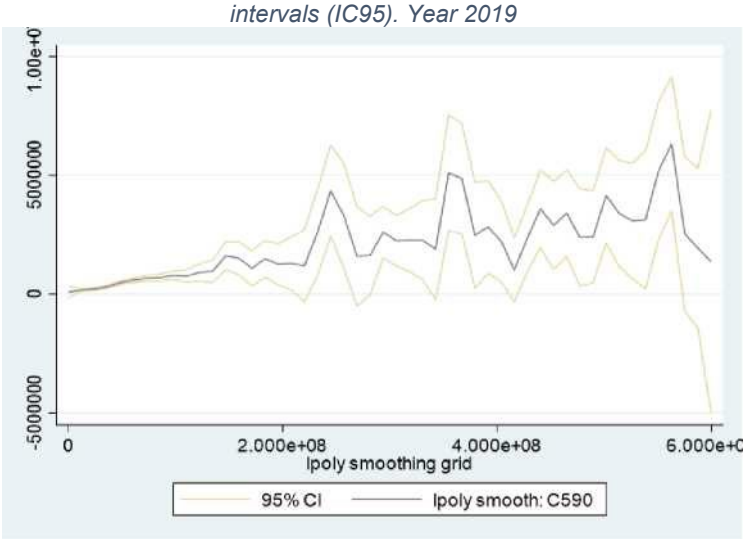
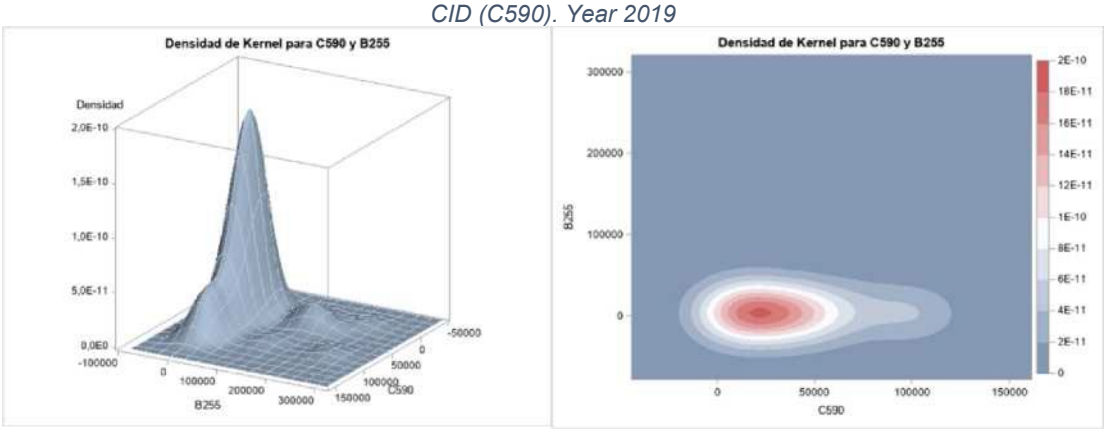


Figure 8 shows the two-dimensional density function of the CID amount and the turnover reported by the companies using the CID in the financial year 2019. The higher the height of the density function, and the more intense the colour of the surface graph, the higher the concentration of firms for these values of the variables analysed.

Figure 8: two-dimensional density (izqda.) and area (dcha.) of the variables Turnover and amount of the CID (C590). Year 2019



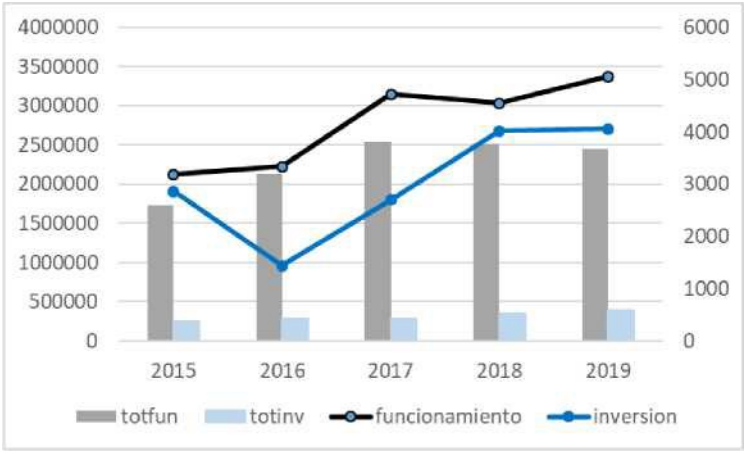
Most companies are close to the source of coordinates with turnover values below EUR 500,000 per year and CIDs below EUR 450 per year. Both figures reflect a modal value for low values of both variables and a queue of the distribution towards the right, indicating the existence of companies with high ICD values in 2019.

On the basis of the information available in Form 282, which reports on the aid received under the Canary Islands REF and other State aid, an exploratory analysis is carried out for the analysis period, differentiating according to the classification of the tax benefit, i.e. whether it is considered to be investment aid or operating aid. Each company reports on regional operating and investment aid, referred to as:

- Deduction for non-initial investments in the Canary Islands (Art. 94 of Law 20/1991 and DA 13th Law 19/1994), (Industrial sector) (box 03).
- Deduction for non-initial investments in the Canary Islands (Art. 94 of Law 20/1991 and DA 13nd Law 19/1994), (Other Sectors) (box 04).
- Deduction for initial investments in the Canary Islands (Art. 94 of Law 20/1991 and DA 13nd Law 19/1994) (box 16).

Over the period analysed, an average of 478 companies used the deduction for investment aid, amounting to around EUR 20,000 per year. The number of companies that used the tax advantage for operating aid was higher, as well as the amount used, with average values of 3.408 enterprises per year, and an amount of EUR 280,000 per company per year. Figure 8 shows the evolution of the average use of the CID qualified as investment aid and operating aid.

Figure 9: evolution of the number of undertakings using the CID, and the amount depending on whether it is for operating aid or investment aid to undertakings. Period 2015-2019



As can be seen from Figure 9, there is a higher proportion of companies using the CID as operating aid (totfun),with values rising from 2.600 enterprises in 2015 to stabilising at 3.700 enterprises in the last years of the period under review. However, the use of the CID as an investment aid incentive (totinv)*is*much lower, only 596 companies used it in the 2019 financial year, which is the highest value of beneficiaries in the various years analysed. In relation to the amount of the deduction, the values of operating and investment aid are similar at the end and beginning of the period, with clear growth over these 5 years. With regard to time trends, there was a deanchoring between the two series in 2016. While the amount of operating aid increases, the amount relating to investment aid is significantly reduced, increasing the gap between the two. This spread was reduced in 2018, when the amount earmarked for investment rose compared with the previous year, while the amount earmarked for operation remained constant.

Figures 10 and 11 show the two-dimensional density functions that link the amount allocated to the CID in corporate tax with the declaration of destination – operating aid or investment aid – in 2019. As can be seen, both graphs show a positive relationship between the intended amount and the two types of use.

Figure 10: two-dimensional density (izqda.) and area (dcha.) function of the variable CID (C590) and the amount earmarked for investment aid. Year 2019

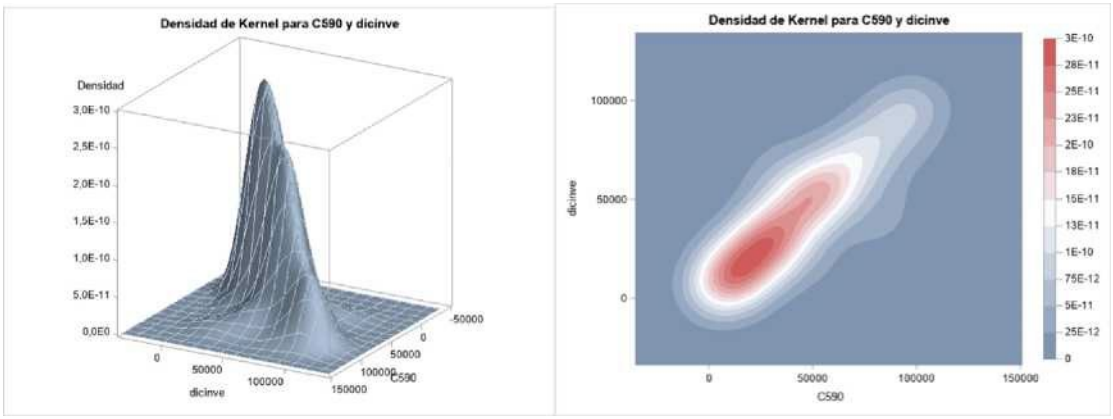
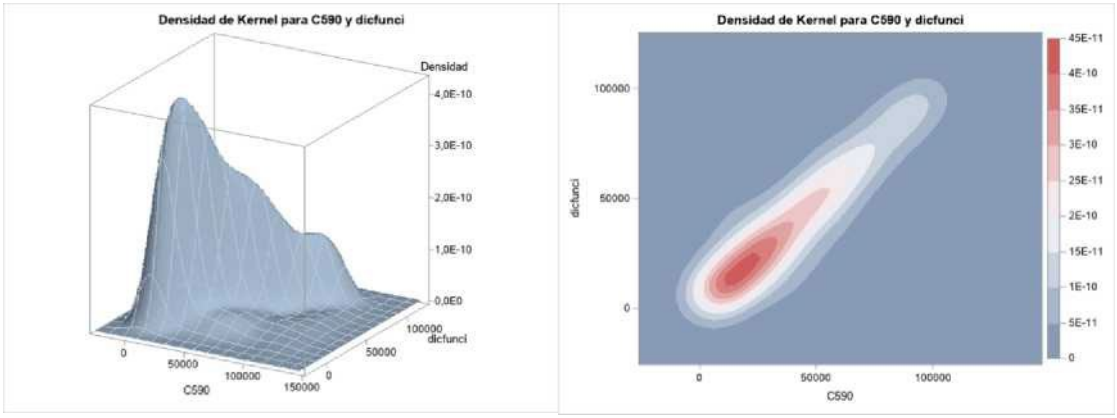
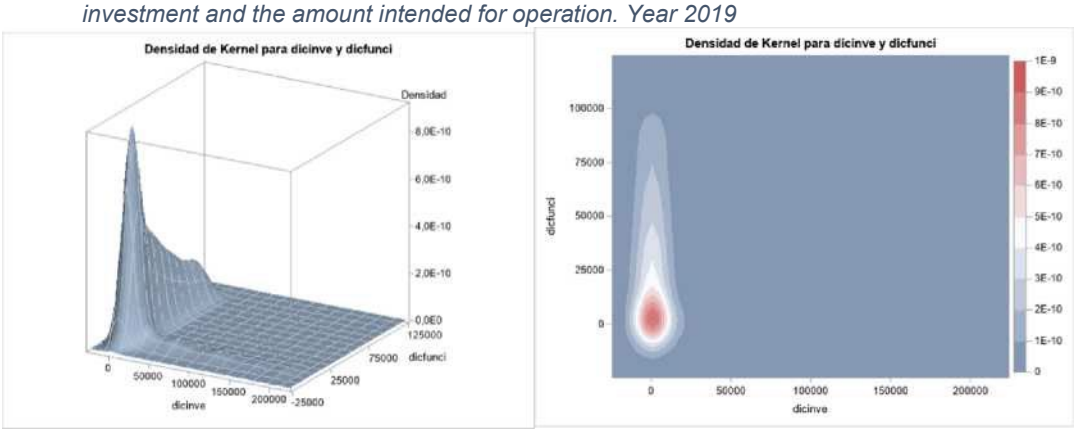


Figure 11: two-dimensional density (izqda.) and area (dcha.) function of the variable CID (C590) and the amount intended for operating aid. Year 2019



Finally, Figure 11 shows the amount of investment aid and operating aid used by companies that used the CID for both incentives in the financial year 2019. As can be seen from the two-dimensional density function, it is 'L', but when analysing the surface function, one of the edges is very diluted because the number of Canary Islands companies using the CID for investment is very small, preventing it from having a clear reflection in the two-dimensional density. In other words, companies often do not jointly use the CID for operation and investment. Figure 12 indicates that companies do not qualify the CID for both items, if it is recognised as investment aid, no operating aid is recorded, and vice versa.

Figure 12: two-dimensional density (izqda.) and surface (dcha.) function of the variable amount earmarked for investment and the amount intended for operation. Year 2019



3. ANALYSIS OF THE MAIN VARIABLES OF THE EVALUATION

This section analyses the deductions to incentivise certain activities used by companies in Spain, differentiating companies resident in the Canary Islands from those in the other Spanish regions, in order to observe the differences between the two groups.

Two types of analysis are carried out: first, with tax information from the AEAT file only, the number of companies benefiting from the CID is studied, as well as the extent of this deduction. Subsequently, on the basis of the file obtained after integrating the information from the AEAT and the INE, the main variables to be assessed, namely the use of the CID and the result variables, which are the fixed assets of the company and the expenditure on R & D & I it carries out.

3.1. EXPLORATORY ANALYSIS USING TAX INFORMATION

This section uses only the information of variables from the AEAT, which contains around 124.444 undertakings in each financialyear8. There are two sets of companies: firstly, companies resident in the Canary Islands that met the requirements described above and, secondly, companies resident in the mainland and the Canary Islands that are part of the INE's Innovation Survey.

The8 124.444 companies per year are obtained from 3 types of companies: 60.427 of the register in the AEAT file and not in INE (companies in the Canary Islands that exist in the AEAT and INE did not interview in their survey), 84.944 of the register in INE and not AEAT files (mainly non-Canary Islands companies selected in the INE survey) and 3.582 companies in both files. For this group of companies, only the tax information in Form 200 is considered.

With the NIF of the companies that were selected for the statistical operation of the INE, the AEAT has completed the tax information for each financial year from 2015-2019, generating a database containing only information from the tax sources of the AEAT.

In order to compare the deductions for investments made in the Canary Islands with those in the rest of the regions, a new variable, called *'Sumadi', has been constructed,* which includes the sum of deductions to encourage certain economic activities, which is shown in the following boxes of the CIT Form 200:

- C590: Investments in the Canary Islands. Applied in this assessment.
- C588: Total deductions to incentivise certain Cap activities. IV Tit. VI, DT 24.3 LIS and Art. 27.3 First Law 49/2002. Applied in this assessment.

Item C590 exists only for undertakings in the Canary Islands, while the C580 corresponds to undertakings in the other Autonomous Communities. Therefore, the amount of Investment Deductions calculated by an undertaking 'i' in one year 't', Sumadi $_{it}$, is defined as:

$$Sumadi_{it} = C590_{it} + C588$$

Next, with this variable sum of deductions in order to incentivise the performance of certain Soci tax activities, a dicotomic variable called 'usaDI 'is generated from the C590 comor9:

$$\{1 \; if \; Sumadi_{it} > 0$$
$$ten \; otherwise$$

Where the $Sumadi_{it}$ variable shows the amount of Company i's Investment Deduction in year t.

Table 7 shows the percentage of companies that used the deduction in 2019.

$UsaDI_{it}$

The9 variable that captures the deduction for investment is the deduction applied and not the deduction generated. The deduction applied is always lower or equal to that generated, as it is not affected by the fact that the undertaking has insufficient quota or by the application of the limit laid down in Article 39 of the EIT Law. Therefore, the impact detected with the deduction generated will always be higher or the same as the one applied.

C 10 Table 7: number of enterprises using the deduction for investment percentage of enterprises in the region. Year 2019

	UsaDI= 0		*UsaDI*= 1		Total companies
	No of undertakings	percentage	No of undertakings	percentage	
Andalusia	7.883	92,14	672	7,86	8.555
Aragon	2.849	88,67	364	11,33	3.213
Principality of Asturias	1.839	92,27	154	7,73	1.993
Balearic	2.382	95,05	124	4,95	2.506
Canary Islands	46.506	88,03	6.322	11,97	52.828
Cantabria	1.202	90,44	127	9,56	1.329
Catalonia	11.921	84,75	2.145	15,25	14.066
Ceuta	130	99,24	1	0,76	131
Castilla and León	3.916	90,71	401	9,29	4.317
Castile-La Mancha	1.901	91,48	177	8,52	2.078
Extremadura	1.515	91,32	144	8,68	1.659
Galicia	4.468	90,28	481	9,72	4.949
Madrid	11.457	87,29	1.668	12,71	13.125
Melilla	117	96,69	4	3,31	121
Region of Murcia	2.911	89,16	354	10,84	3.265
Navarra	114	91,20	11	8,8	125
Basque country	302	92,92	23	7,08	325
Rioja	1.009	90,09	111	9,91	1.120
COMM. Valencia	7.601	86,98	1.138	13,02	8.739
Total	110.023		14.421		124.444

Source: own production with information from the AEAT

The first result to be highlighted is the over-sampling of companies in the Canary Islands. Tax information for 2019 was available in 124.444, of which 52.828 are residents in the Canary Islands (42 %) and 71.616 in the other Autonomous Communities. This proportion is due to the way in which the initial extraction of companies has been carried out to carry out the assessment. As well as the data on enterprises in the Canary Islands has been 'population-based', with any company meeting the characteristics indicated above, the number of undertakings in the other Autonomous Communities is influenced by the sample of companies included in the Business Innovation Survey (INE), with tax information in one of the financial years 2015-2019.

Table 8 shows the number of companies using any of the deductions to incentivise certain economic activities (DI), the average amount used, and the fixed assets of each group.

C 11 *Table 8: evolution of number of enterprises according to DI, average amount, average fixed assets*

Year	Control (*UsaDI*= 0)		Treated (*UsaDI*= 1)		
	No.	fixed assets	No.	Value DI	Fixed assets
2015	105.005	3,7E8	11.827	6780550	1,16E9
2016	108.788	3,66E8	12.119	6063851	1,10E9
2017	110.201	3E8	13.659	9042851	1,62E9
2018	110.354	2,76E8	14.238	9782091	1,78E9
2019	110.660	2,87E8	14.513	9828945	1,79E9
average	109.001	3,2E8	13.271	8299658	1,49E9

Source: own production with data from the AEAT. In EUR cent

Around 13.270 companies form part of the treatment group, bringing together those existing in the Canary Islands and those in the other Autonomous Communities of the country, while the control group contains around 109.001 companies each year. The average value of fixed assets of the companies in the group using a deduction for investment is EUR 14,9 million per year, while in the control group it amounts to EUR 3,2 million per year.

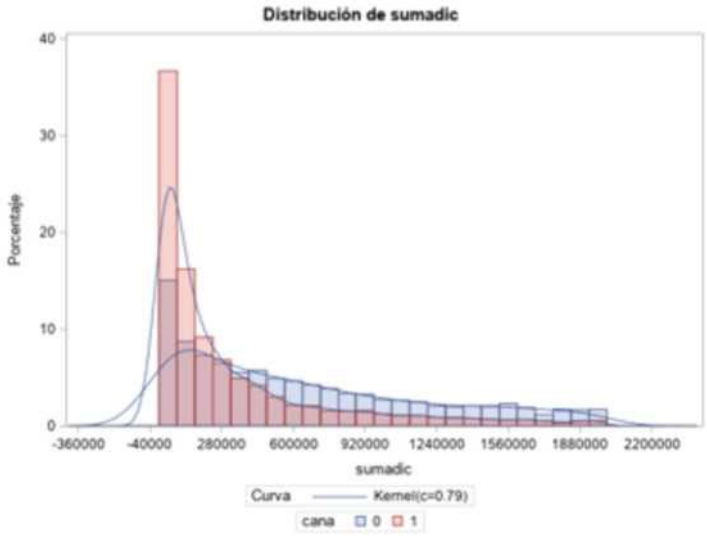
C 12 *Table 9: evolution of the number of enterprises, percentage of use of the DI, average amount and fixed assets, depending on whether or not tax residence is in the Canary Islands*

	Canary Islands				Other Autonomous Communities			
Year	no of	% usoDI	Amount DI	Fixed assets	no of	% usoDI	Amount DI	Fixed assets
2015	46.906	10,2	177072	63306463	69.926	10,1	1028055	7,15E8
2016	49.446	10,9	210097	60803478	71.461	9,4	882989	7,03E8
2017	51.360	11,9	305886	60474898	72.500	10,3	1486979	7,19E8
2018	52.045	12,2	324686	62421161	72.547	10,8	1686894	7,26E8
2019	52.828	11,9	296814	62987284	72.345	11,3	1755026	7,52E8
average	50.517	11,4	262911	61998660	71.755	10,4	1367989	7,23E8

Source: own production with data from the AEAT. In EUR cent

11.4 % of companies resident in the Canary Islands use the CID and 10.4 % of companies resident in the other Autonomous Communities use deductions to incentivise certain activities. Companies resident in the Canary Islands have an average amount of deduction of EUR 2,629, while for companies in the rest of the regions it amounts to EUR 13,679. In turn, the average levels of total fixed assets are much higher for companies resident in the rest of Spain (EUR 7,23 million) than in Canary Islands residents (EUR 610,000 million).

Figure 13: histogram and density function of the Sumadi, depending on whether the company is resident in the Canary Islands or in the other Autonomous Communities, in 2019



The companies resident in the Canary Islands show a higher concentration in low Sumadi values, with a very pronounced fashion at the beginning of distribution, followed by a steep drop in histogram values. In other words, few island companies have high amounts of deductions to incentivise certain economic activities. The functional shape of the histogram of the variable in the other Autonomous Communities is more uniform. There is a fashion in the low values, but less pronounced than for companies resident in the Canary Islands, and then a queue to the right slowly, reflecting the existence of companies with high values in this heading.

3.2. EXPLORATORY ANALYSIS USING INTEGRATED INFORMATION AEAT-INE

Despite the large amount of information provided by the AEAT database, it does not have investment-related variables, such as the type of investment (in R & D or innovation), if they have research departments and their size, etc. The INE's Business Innovation Survey is used to complement the data available from the AEAT. In order to incorporate the information from the INE's Business Innovation Survey into the AEAT database, information is cross-checked using the companies' TIN. This integration leads to a loss of remarkable observations for companies resident in the Canary Islands because, as the statistical operation carried out by the INE is carried out on a representative sample of the population of enterprises in the region, the number of companies surveyed in the Canary Islands is 1.000 enterprises per year.

C 13Table 10: number of enterprises using the Investment Deduction and percentage of total enterprises in the region. Year: 2019. Then matching *AEAT-INE*

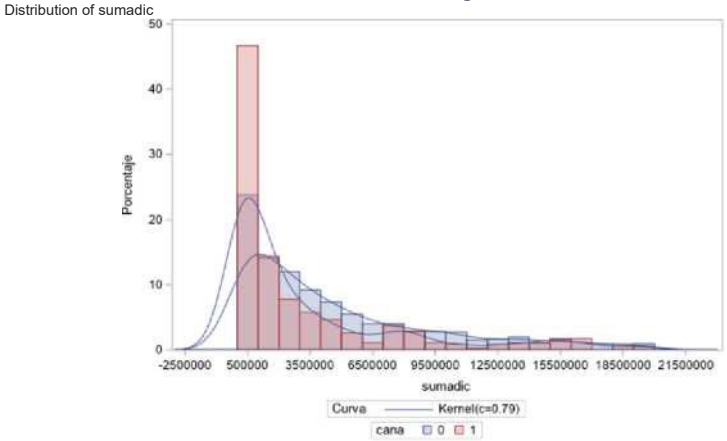
	Does not use di		Yes uses di		Total companies
	No of undertakings	% region	No of	% region	
Andalusia	2.193	83,6	430	16,4	2.623
Aragon	956	79,3	250	20,7	1.206
Asturias	710	86,5	111	13,5	821
Balearic	709	90,7	73	9,3	782
Canary Islands	569	57,5	420	42,5	989
Cantabria	439	84,1	83	15,9	522
Catalonia	3.783	72,9	1.402	27,1	5.185
Ceuta	53	98,1	1	1,9	54
Cl. and Leon	1.246	81,9	275	18,1	1.521
CL. The English Channel	623	84,1	118	15,9	741
Extremadura	485	82,9	100	17,1	585
Galicia	1.495	81,4	341	18,6	1.836
Madrid	3.560	76,8	1.075	23,2	4.635
Melilla	38	90,4	4	9,6	42
Murcia	961	80,4	234	19,6	1.195
Navarra	69	89,6	8	10,4	77
P. Vasco	205	91,1	20	8,9	225
Rioja	418	84,3	78	15,7	496
Valencia	2.362	75,1	783	24,9	3.145
Total	20.874		5.806		26.680

Source: own production with information from the AEAT and INE.

The integration of the INE and AEAT databases leads to a 78 % reduction in sample size, from 124.444 companies when data were used only from the AEAT to 26.680 after integration with the INE database. It is significant that, in the Canary Islands, there is a change from 52.828 companies, as the population in the AEAT is available, to 989, because the INE operation selects a representative sample, not the whole population. This represents a 98 % reduction in the sample. However, for the rest of the Autonomous Communities, this reduction in the sample of existing companies in the region is around 61 %.

When analysing the percentages of companies in each region using UsaDI, there is a difference between the percentage of use of the tax benefit by companies resident in the Canary Islands (42.4 %) and companies resident in the rest of Spain (15.9 %).

Figure 14: histogram and density function of the Sumadi in 2019, depending on whether the company is in the Canary Islands or in the other Autonomous Communities. After matching AEAT and INE



Similarly to Figure 14, after incorporating information from the INE, with the loss of observations it entails, it can be seen that the Canary Islands companies show a higher concentration in low Sumadi values,with a very pronounced modal value at the beginning of distribution, followed by a sharp decrease in the histogram values, indicating the existence of few island companies with large consignments of DI. As regards the histogram of the variable in the rest of the Autonomous Communities, there is a function with a less pronounced fashion and a tail towards the right that slowly decreases, reflecting the existence of companies with high values in this item in the rest of Spain.

After analysing the variable of the deduction for investment, which determines whether the enterprise uses this tax benefit, the statistics describing the two dependent variables on which the effect of the tax benefit is to be checked is presented below.

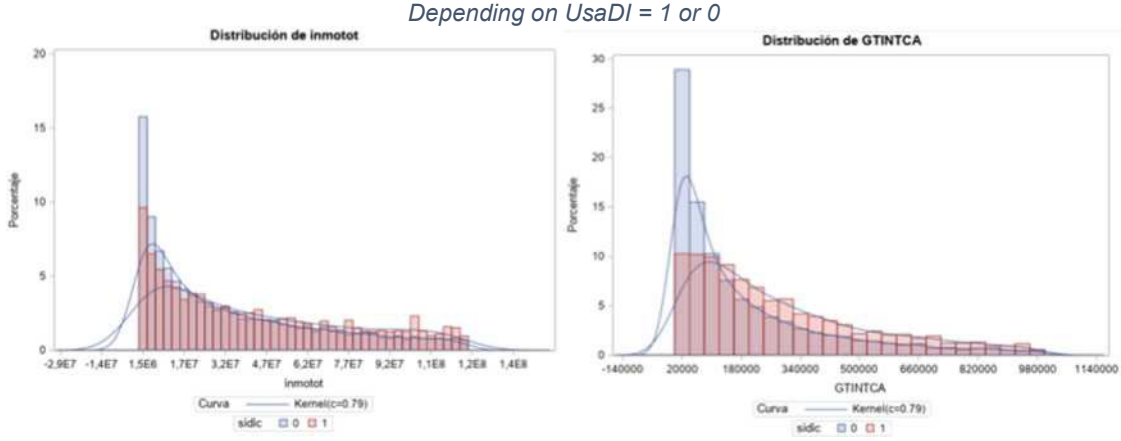
C 14Table 11: descriptive statistics dependent variables. Year 2019

	average	10	25	50	75	90
Gasti + d	6055	0	0	0	1123	5466
inmotot	1.59E7	25327	145106	692587	3,1E6	1,24E7

Source: own production with data from the AEAT. In EUR cent

The total fixed assets variable is a continuous variable, however, it is noted that in the enterprise R & D & I expenditure variable there is a large number of enterprises that do not incur any kind of expenditure under this item, with more than 50 % of them with a value of 0. For this reason, and in order not to distort the figure of the frequency histogram due to the accumulation of observations in 0, Figure 15 presents the histogram for those companies that have a positive value of the dependent variable in the financial year 2019.

Figure 15: histogram and density function of total fixed assets and expenditure on business R & D & I in 2019 (enterprises with positive value of the variable). Depending on UsaDI = 1 or 0



For both R & D & I expenditure and the volume of total fixed assets, companies that do not use the deduction show a higher proportion of observations for low values, with a much higher fashion than that observed for companies using the deduction. However, as expenditure on R & D & I and fixed assets increases, the percentage of enterprises with deduction is higher than those that do not have.

The following section makes an assessment of the impact of the use of the investment deduction on the increase in companies' fixed assets and their expenditure on R & D & I.

4. ASSESSMENT OF IMPACTS

This section analyses the effect of the tax benefit on certain variables of interest. Below is the theoretical design of the impact assessment, of instrumental variables, and the different

alternatives considered depending on the proposed econometric specification and the estimation method.

4.1. DESIGN OF IMPACT ASSESSMENT

The impact assessment seeks to answer the following question: what would have happened to a company using the Investment Deduction if it had not used it? In our particular case, what would have happened to you on the level of fixed assets and the expenditure on R & D & I if you had not applied the deduction?

The robustness of the analysis when answering this question with counterfactual impact assessment techniques may be jeopardised by the existence of other characteristics of companies that influence the use of this tax benefit, such as the sector of activity, its size, the type of company, etc. These characteristics may lead to selection biases, which may arise both from observable variables and by the existence of unobservable variables.

Where their origin is in the characteristics observed, they can be avoided by identifying and using known variables, which explain the behaviour of enterprises in the absence of the programme. In this context, the counterfactual can be estimated using the group of non-participating companies, i.e. those that do not use the investment deductions. However, it is difficult to have all the relevant characteristics of the enterprises using the investment deduction, so there are unobserved characteristics that may affect participation in the programme. To solve the problems of selection bias due to unobserved variables, a panel of data is used, which, when the unobserved heterogeneity is constant over time, allows the effect of the deduction for investment to be isolated.

The impact assessment design used is the Difference Difference (DID) method. To this end, a dicotomic variable captures the effect of the programme $(_{D\,it})$ that is to use the investment deduction in the post-treatment periods, which can take two values:

$$\text{La} = \{1\ ^{si}\ t >^{r}\ when\ UsaDI_{ir} = 1$$
$$^{LT}\rceil\ 0\ otherwise$$

The two most common approximations for estimating the impact with the DID methodology are based on the *Two Way Fixed effect* (TWFE) linear regression specification, both in its 'static' and 'cumulative' versions.

The expression of the static equation is given by equation (1):

$$Yit = {}^{a}i + Yj + Vk \pm t + Por^{D}it + Y.k = 1\ SkXITK + Uit \qquad (1)$$

Where Y_{it} is the dependent variable, where the impact is seen, on the one hand, of the logarithm of the company's total fixed assets and, on the other hand, the logarithm of the R & D & I expenditure of the enterprise '*i*' in year*t;* X_{ITK} is the vector of explanatory variables influencing the dependent variable; U_{it} is the end of error, capturing the unobserved characteristics affecting the variable Y_{it}; a_{is} the parameter that captures the unobserved effect of company '*i*', which is constant over time; it*is* a fictitious variable that is captured by the Autonomous Community in which the company resides; Y_k captures the effect of the sector of activity (CNAE); A_t captures the influence of time; and parameters $\mathcal{B}_k$ determine the effect of the observed characteristics, X_{ITK}, on the result variable. The parameter of interest in this specification is$_0$, which includes the impact of benefiting from the investment deduction (D_{it}) in subsequent years on the dependent variable.

The second DID specification incorporates the dynamics and is given by equation (2), which takes into account that companies may accumulate the treatment at different times of the analysed period. It assumes that the use of the investment deduction has cumulative effects in the following years. A 5-year panel differentiates between the effect of using deduction one, two, three, four or five years.

$$\square_{it} = {}^{a}_{i} + Y_j + la_k + la_t + 2 + {}_{5=1} P_s \text{'}_{its} + Z_{k=1} \text{'}kla_{ITK} + U_{it} \quad (2)$$

Where

D_{its} {1 *if* $t > r$ *when*$_{UsaDI\ ir}$= s l 0 *otherwise*

D_{its} is an indicator function that takes the value of 1 for periods following the year *'r'* in which an enterprise '*i*' uses '*s*' times the deduction for investments. In other words, the estimation of the impact is different for companies that use the investment deduction, £1, once for companies that use it twice, namely2, and so on. In the cumulative TWFE specification of equation (2), the parameters of interest are β_s, $s \geq 1$, and are interpreted as estimating the impact of participating cumulatively in the programme in the post-treatment periods a number of times.

C 15*Table 12: number of enterprises depending on the number of times they use the investment deduction in the period under review*

Year	2015	2016	2017	2018	2019
AcuUsaDI					
0	23.199	23.494	14.621	20.982	18.934
1	4.937	2.875	2.417	2.844	2.561
2	0	3.085	1.550	1.730	1.678
3	0	0	2.216	1.250	1.320
4	0	0	0	1.760	1.008
5	0	0	0	0	1.441

Source: own production with data from the AEAT.

Table 12 provides information on the number of enterprises, resident in the national territory, which usesrum the deduction analysed once, two, three, four and five times during the estudiperiod10. In the 2015 financial year, 4.937 companies used the deduction, while 23.199 did not use it. In the 2016 financial year, 3.085 companies used the deduction two years and 2.875 companies used it in a single year, either in 2015 or in 2016. In 2017, 3.013 companies used the deduction for a single financial year, 1.550 used it in two years (2015 and 2016, 2016 and 2017 or 2015 and 2017) and 2.216 in the three financial years (2015, 2016 and 2017), and so on for the rest of the financial years. As can be seen, 1.441 companies used this tax benefit for the 5 years analysed and are supposed to have differential impacts, compared to the effect of the investment deduction on the 2.561 companies that only benefited from the deduction in one year of the period.

In order to achieve estimates of the impact of a programme with good statistical properties, the selection bias needs to be kept as small as possible.

10 From the database after the AEAT and INE *matching*.

Using the DID approach makes it possible to solve the problem of unobserved biases over time.

Considering the tax benefit analysed and the database available, it is possible to incorporate an impact assessment method that takes into account the possible endogeneity in the use by companies of the tax benefit. If this were the case, the inference and estimated parameters of the causal effect of the programme could be biased when the estimation method assumes that the tax benefit is completely exogenous as would be the case when using the Standard Quadrased Minimum Method. Following Einium (2009) to capture the effect of unobservable attributes in the output variable, an instrumental variable (IV) approach is used. It is assumed that the difference in intensity in the rates of application of the CID and the Deduction to Incentivate Certain Activities in the rest of the Autonomous Communities affects the probability of using the deduction and this geographical variation is used in the tax treatment to isolate the causal effect of the CID on the result variables considered. The advantage of this approach is that it is based on explicit differences in public policies with well-defined and publicly stated allocation criteria and is therefore particularly suitable for assessment.

To equation (1) is added the auxiliary equation (3) capturing the possible endogeneity existing in companies when using the investment deduction, D_{it}.

$$D_{it} = G_i + la_j + P_k + (t + {}^{n}0^{z}_{it} + S_{k=1} V_{k\,la\,nk} + V_{it} \qquad (3)$$

Participation in the programme is the endogenous variable, which is explained by a number of factors or exogenous characteristics of the companies, $X\,ITK$,together with an instrumental variable, $Z_{it,}$ which captures whether the company is located in the Canary Islands or not.

$$1\_\,f\,1 \;\; if\; undertaking \text{“i” in year “t” is located in the Canary Islands}$$
$$\acute{I}t = \{$$
$$0 \;\; otherwise$$

The proposed impact assessment design can be summarised in the following diagram:

Z ⑦	D/ ✌	AND1, AND2
Resident in the ☝	Islands la Usar Deduction for ♐	investment, R & D & I expenditure

The results obtained for different specifications and econometric estimation methods are presented below.

4.2. EVALUATION RESULTS

4.2.1. Estimation of the impact of the Investment Deduction on the fixed assets of the company

The result variable is the sum of tangible and intangible assets declared by the company in the CIT Form 200.

Table 13 shows the results of impact estimation for different specifications of the equations (1) – (3) with different estimation methods. A first model is specified, which does not include further explanatory returns or enterprise characteristics that may be influenced by variables dependent on equations (1) and (2), and a second model including the variables listed in Table A1 of the Annex to this section. The alternative of including or not having heterogeneous unobserved effects has also been considered, i.e. that the main equation contains the termino a,capturing the effect for each of the companies, and that it is associated with the panel data approach, or simply to consider that there is no such unobserved heterogeneity and therefore a constant term is used in the equation, a, which is associated with a correctly estimated data *pool* with typical cross-sectional econometric methods. In relation to estimation methods, we considered the alternatives of the data *pool*, fixed and random effects with the estimation of instrument variables for a panel data model.

The results of the estimates reflect that when it is assumed that there is no unobserved heterogeneity, estimating a data *pool*, the use of the deduction has a significant impact on the increase in the enterprise's total fixed assets in the specification (1) – effect in subsequent years when using the deduction. However, when considering the specification (2) – which assesses the cumulative effect of using the deduction in the period analysed – no impacts are observed between the periods.

When unobserved company heterogeneity is assumed, the estimation by instrumental variables of the panel data model this tax benefit generally does not present statistically significant results in the increase in total fixed assets of the enterprise in subsequent years. Only on the fixed-effects model and without additional returns, the tax benefit has a positive impact.

Table 13: estimation of the impact of equation (1) and (2) with instrumental variables. DependentVariable: Total annual fixed assets

Estimation method	*Data pool*		Fixed effects		Random effects	
Aor	N/A	Of which:	N/A	Of which:	N/A	Of which:
Equation 1						
Aor	5,51 * * *	0,25 * *	— 0.73	— 2.20	4,47 * * *	0.31
Equation 2						
FT	277.95	— 17,31	— 0.23	1.27	0.59	3,69
N.E.S.2	— 259,33	— 0,95	1.99	— 14.09	1,23	— 22,56
N.E.S.3	484,72	115,81	2.10	23.54	5,10	35,82
N.e.c.	346,98	— 57,42	— 4.58	— 21.98	— 7.82	— 30,52
A	— 1521.69	— 177,69	0.15	10.84	— 1,81	8,60

Note: * * * statistically significant at 1 %, * * at 5 %, * at 10 %.

4.2.2. Estimation of the impact of the Investment Deduction on the company's R & D & I expenditure

The result variable is the total expenditure on R & D and innovation activities in a given year.

Table 14 shows the impact that the use of the deduction on companies' R & D & I expenditure, with the models specified by equations (1) – (3), with a *pool* of data and panel data, as well as including (or not) more explanatory returns or characteristics of companies that may influence firms' R & D & I expenditure. Each model specification is estimated by IV.

Table 14: estimation of the impact of equation (1) and (2) with instrumental variables. Dependent Variable: total R & D & I expenditure in the year

Estimation method	*Data pool*		Fixed effects		Random effects	
	N/A	Of which:	N/A	Of which:	N/A	Of which:
Equation 1						
β_0	2,23 * * *	43,12 * * *	— 1,21	10,14 * *	0,01	4,53 * * *
Equation 2						
N.E.S.1	— 83,63	160,34	3,37	19,03	— 3,12	6,41
N.E.S.2	515,46	39,49	0,84	— 19,31	37,83 * *	14,26
N.E.S.3	— 720,05	406,71	12,27	62,26	— 12,89	14,27
N.e.c.	— 723,72	— 241,17	— 19,81	— 63,95	— 23,24	— 50,92
N.E.S.5	242,32	238,91	27,15	15,87	29,91	50,52

Note: * * * statistically significant at 1 %, * * at 5 %, * at 10 %.

Overall, the results obtained seem to indicate that this tax benefit has a positive impact on companies' R & D & I spending in the following years. In the specification of the model in equation (1) for the data *pool*, without assuming unobserved heterogeneity, such as for the fixed and random effects panel models, the estimated parameters are positive and statistically significant, indicating that in the years following the use of the deduction, companies increase their expenditure on R & D & I compared to that which they would have incurred had they not used the tax benefit to use the deduction. However, when not considered additional returns, only the data *pool* identifies positive and statistically significant impacts on business R & D & I spending. And in the model that captures cumulative impacts, as specified in equation (2), no significance of the parameters is observed. These results are not in a position to assess the isolated effect of this aid on Canary Islands companies.

Considering the evaluation methodology applied and the databases available for the analyses, the evaluation team is considering amending this methodological approximation in future reports, because the instrumental variables approach is estimating the impact of using these deductions on the total number of Spanish companies, not just those in the Canary Islands. The fact that the company is resident in the Canary Islands is used as the tool to solve the problem of selection biases. An evaluation exercise should be carried out to assess the impact of the deduction on businesses in the Canary Islands, which would invalidate the use of the instrumental variables approach proposed here. In addition, considering the behaviour of companies in using the CID, it would be advisable to incorporate approaches such *as dif-in-diff* staggered to produce more robust estimates, which has not been considered in this approximation of panel data.

ANNEX

Table A1: variables used in econometric analyses.

Variable	Descriptive
expenditure on R & D & I	Total expenditure on research, development and innovation of the enterprise in the year
Inmotot	Valuation of total fixed assets of the company (sum of intangible and tangible fixed assets of AEAT model 200)
Contemp	Dicotomics. It takes a value of 1 if the company is private. 0 otherwise
Finaemp	Dicotomics. It takes a value of 1 if the financing is a company. 0 otherwise
Age	Length of service of the undertaking. Difference year of data and year in which the company was set up.
Figure	Annual turnover of the company.
year 2015	Dicotomics. Takes value 1 if the information is 2015. 0 otherwise
year 2016	Dicotomics. Takes value 1 if the information is 2016. 0 otherwise
year 2017	Dicotomics. Takes value 1 if the information is 2017. 0 otherwise
year 2018	Dicotomics. Takes value 1 if the information is 2018. 0 otherwise
year 2019	Dicotomics. Takes value 1 if the information is 2019. 0 otherwise
acti_A	Dicotomics. Takes value 1 if the company is encoded in point A of CNAE. 0 otherwise
acti_B	Dicotomics. Takes value 1 if the company is encoded in point B of CNAE. 0 otherwise
acti_C	Dicotomics. Takes value 1 if the company is encoded in point C of CNAE. 0 otherwise
acti_D	Dicotomics. Takes value 1 if the company is encoded in point D of CNAE. 0 otherwise
acti_E	Dicotomics. Takes value 1 if the company is encoded in point E of CNAE. 0 otherwise
acti_F	Dicotomics. Takes value 1 if the company is encoded in F of CNAE. 0 otherwise
acti_G	Dicotomics. Takes value 1 if the company is encoded in point G of CNAE. 0 otherwise
acti_H	Dicotomics. Takes value 1 if the company is encoded in point H of CNAE. 0 otherwise
acti_I	Dicotomics. Takes value 1 if the company is encoded in point I of the CNAE. 0 otherwise
acti_J	Dicotomics. Takes value 1 if the company is encoded in point J of CNAE. 0 otherwise
acti_K	Dicotomics. Takes value 1 if the company is encoded in point K of CNAE. 0 otherwise
acti_L	Dicotomics. Takes value 1 if the company is encoded in point L of CNAE. 0 otherwise
acti_M	Dicotomics. Takes value 1 if the company is encoded in point M of CNAE. 0 otherwise
acti_N	Dicotomics. Takes value 1 if the company is encoded in point N of CNAE. 0 otherwise
acti_P	Dicotomics. Takes value 1 if the company is encoded in point P of CNAE. 0 otherwise
acti_Q	Dicotomics. Takes value 1 if the company is encoded in point Q of CNAE. 0 otherwise
acti_R	Dicotomics. Takes value 1 if the company is encoded in point R of CNAE. 0 otherwise
acti_S	Dicotomics. Takes value 1 if the company is encoded in point S of CNAE. 0 otherwise
Andalusia	Dicotomics. It takes a value of 1 if the company is resident in Andalusia. 0 otherwise
Aragon	Dicotomics. It takes a value of 1 if the company is resident in Aragon. 0 otherwise
Principality of Asturias	Dicotomics. It takes a value of 1 if the company is resident in Asturias. 0 otherwise
Balearic	Dicotomics. It takes a value of 1 if the company is resident in the Balearic Islands. 0 otherwise
Canary Islands	Dicotomics. It takes a value of 1 if the company is resident in the Canary Islands. 0 otherwise
Cantabria	Dicotomics. It takes a value of 1 if the company is resident in Cantabria. 0 otherwise
Catalonia	Dicotomics. It takes a value of 1 if the company is resident in Catalonia. 0 otherwise
Castilla and León	Dicotomics. It takes a value of 1 if the company is resident in Castile and Leon. 0 otherwise
Castile-La Mancha	Dicotomics. It takes a value of 1 if the company is resident in Castile-La Mancha. 0 otherwise
Extremadura	Dicotomics. It takes a value of 1 if the company is resident in Extremadura. 0 otherwise
Galicia	Dicotomics. It takes a value of 1 if the company is resident in Galicia. 0 otherwise OR
Madrid	Dicotomics. It takes a value of 1 if the company is resident in Madrid. 0 otherwise

Region of Murcia	Dicotomics. It takes a value of 1 if the company is resident in Murcia. 0 otherwise
Navarra	Dicotomics. It takes a value of 1 if the company resides in Navarre. 0 otherwise
Basque country	Dicotomics. It takes a value of 1 if the company is resident in the Basque Country. 0 otherwise
Rioja	Dicotomics. It takes a value of 1 if the company is resident in La Rioja. 0 otherwise
Community Valencia	Dicotomics. It takes a value of 1 if the company is resident in Com. Valencia. 0 otherwise

II.4. IMPACT ASSESSMENT OF THE RESERVE FOR INVESTMENTS IN THE CANARY ISLANDS (RIC)11

1. INTRODUCTION

Once the files provided by the AEAT and INE have been integrated, the following analyses are carried out in the following sections, which are conditional on the data subset used in section II.2.2 of this chapter:

1. Analysis of beneficiaries: the companies that have used RIC are selected (box C404 of the Corporate Tax Form 200 with positive information).
2. Impact assessment: two sets of companies resident in the Canary Islands are selected. A first group of companies that made allocations to the ICR and a second group of companies that did not benefit from this tax benefit in the period analysed.

The following is an analysis of the companies resident in the Canary Islands that use the CRM.

3. DESCRIPTIVE ANALYSIS OF BENEFICIARIES

For this analysis, the AEAT data of the Canary Islands companies that issued the Reserve for Investment in the Canary Islands (RIC) in some financial year 2015-2019 are used. In CIT Form 200, there are two boxes that provide information on the CRP:

• C403-Auments. Reserve for investments in the Canary Islands (Law 19/1994).

• C404-Remedies. Reserve for investments in the Canary Islands (Law 19/1994).

Of the two variables, variable C404 reports on the amount allocated to the CRP. The undertakings treated are considered to be those that make allocations to the reserve, i.e. when variable C404 takes a positive value. From variable C404, a dicotomic variable called *'DotaRIC'* is generated and indicates whether a Canary Islands enterprise has used the RIC in a given financial year.

$$DotaRIC_{it} = \{1 \ if \ box \ C404_{it} > 0 \ L \ otherwise$$

The variable *"$box\ C404_{it}$"* contains the allocation made by the Canary Islands enterprise "*i*" in year "*t*" to the RIC.

11 Theeconomic variables shown in the tables and figures in the section are expressed in euro cent.

Table 15: number and percentage of Canary Islands enterprises that have used the ICR during the period, and amount allocated (average and median) 2015-2019

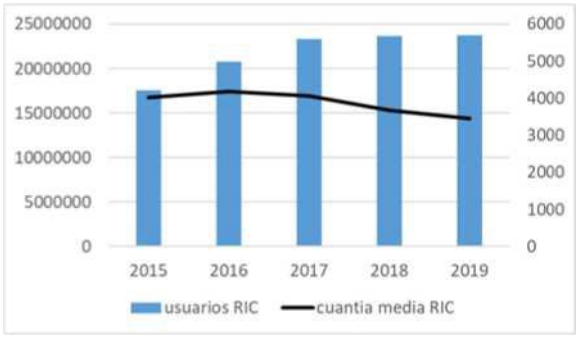
please provide RIC\ year	2015	2016	2017	2018	2019	Total
No	42.691	44.453	45.759	47.127	47.127	226.393
	(91.01)	(89.9)	(89.09)	(89.08)	(89.21)	
Yes	4.215	4.993	5.601	5.682	5.701	26.192
	(8.99)	(10.1)	(10.91)	(10.92)	(10.79)	
Average used	16726734	17454511	16944532	15286779	14426823	161678
Median used	3500000	3350000	3500000	3500000	3613297	3500000

Source: own production with data from the AEAT. In EUR cent.

Table 15 shows the number and percentage of Canary Islands companies that have used the ICR in the different financial years. The first result to be highlighted is the low utilisation of this tax benefit, each year between 4.200 and 4.700 companies using the ICR, only between 8.9 % and 10.9 % of the companies analysed.

Figure 16 shows the evolution of the number of undertakings providing allocations to the ICR and their average amount in the period 2015-2019. Over the period analysed, there was an increase of 32.25 % per year in the number of companies that provide funding to the ICR, from 4.215 in 2015 to 5.701 companies in 2019. The average amount of the deduction over the period is EUR 161,678, from EUR 167,267 per undertaking in 2015 to EUR 144,268 in 2019. As regards the median value, as shown in Table 15, it is much lower, reflecting extreme values. The median over these 5 years is EUR 35,000.

G 16Figure 16: evolution of the number of beneficiaries of the CRP and average amount of the envelope of ICM. Period 2015-2019



Source: own production with data from the AEAT. In EUR cent.

Figure 17 shows the probability of an allocation to the RIC based on the turnover of the Canary Islands companies. Using non-parametric estimators, the probability of making allocations to the RIC is calculated on the basis of turnover for 2019. There is a slight positive relationship between the size of the company and the probability of making allocations to the ICR, mainly for low turnover values, the probability increases until companies reach the turnover of EUR 100,000, from this threshold the probability of funding to the RIC stabilises.

Only 35 % of the companies with higher turnovers use this tax benefit.

Figure 17: probability of equipping the RIC on the basis of turnover, E (DotarRIC = 1 | figure neg.) and 95 % confidence intervals (IC95). Year 2019

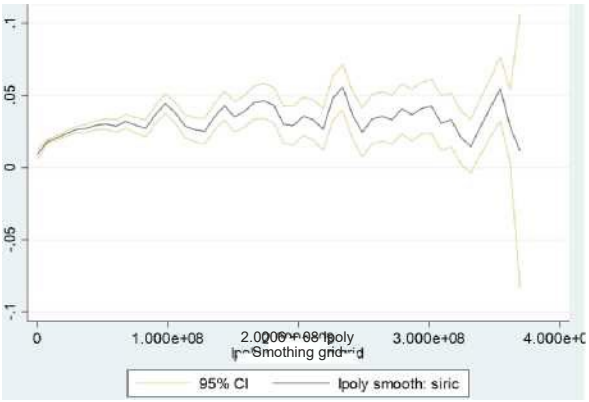
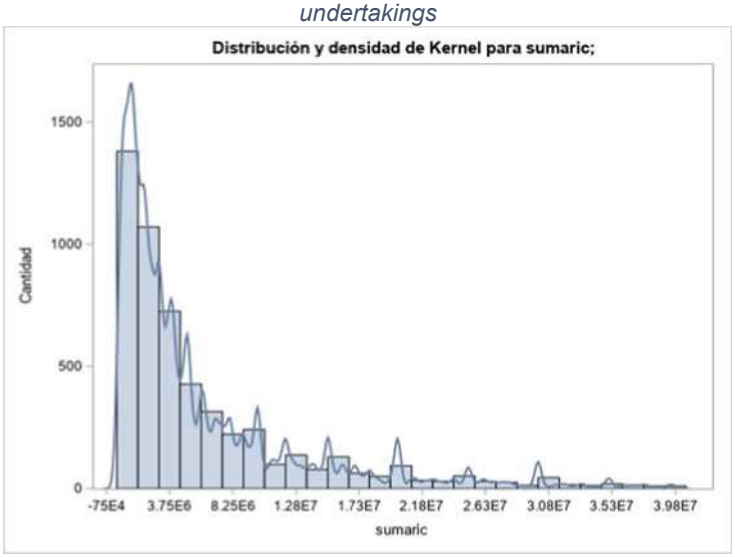


Figure 18 shows the distribution of the allocation to the variable RIC in financial year 2019, showing the frequency histogram and the estimation of the density function using non-parametric techniques, and Table 2 shows some statistics describing the distribution of the variable.

Figure 18: frequency histogram of the amount of the CRP endowment (box C404) for the year 2019 for Canary Islands undertakings



As can be seen, the vast majority of companies make small CRM endowments, with a queue of distribution to the right, reflecting the existence of a small number of companies making large allocations to the ICR in the 2019 financial year.

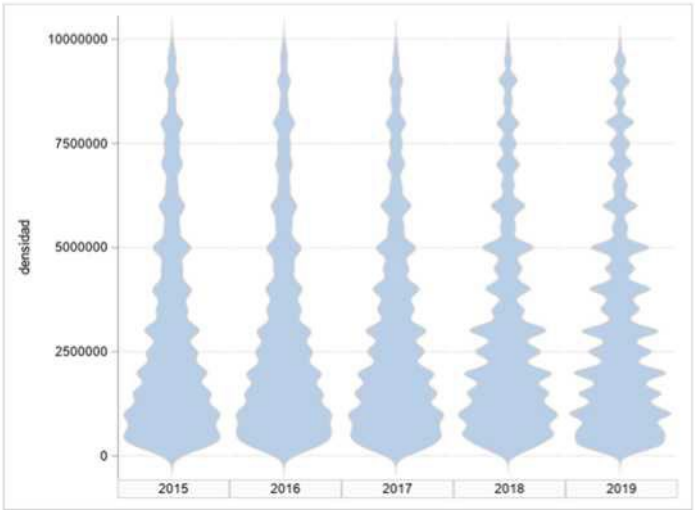
Table 16: figures on the distribution of ICM by Canary Islands companies using C404in 2019

Quantile C403	5	10	25	50	75	90	95
	353000	600000	1500000	3613297	1.0E7	2.5E7	4.9E7

Source: own production with data from the AEAT. In EUR cent.

Figure 19 shows the evolution of the number of undertakings that made allocations to the ICR in each financial year and their amount. The number of beneficiaries of this tax benefit is similar in the analysis period, without significant changes in the distribution of the number of beneficiaries by amount over the years. As was the case in Figure 18, the size of the allocations is small for the majority of Canary Islands companies, below EUR 25,000, with a queue upwards, showing the existence of few companies providing large amounts of endowments.

Gráfico 19: figura de violín de la dotación de la RIC en las empresas canarias por año



Source: own production with data from the AEAT. In EUR cent.

The relationship between the size of the companies and the use of this tax benefit is analysed below. Figure 20 classifies all the Canary Islands companies by fan according to their turnover in the financial year 2019. As can be seen, companies with the highest turnover make higher contributions to the ICR, the average ICR of 5 % of island companies with the highest turnover is EUR 342,803. For the first quartile of turnover – EUR 173,561 – the average allocation to the CRP is at EUR 51,797, and for the third quartile of turnover – value of EUR 1,22 million – at EUR 102,576.

Figure 20: distribution of the average RIC envelope according to the ventile of the Canary Islands enterprise's turnover. Year 2019

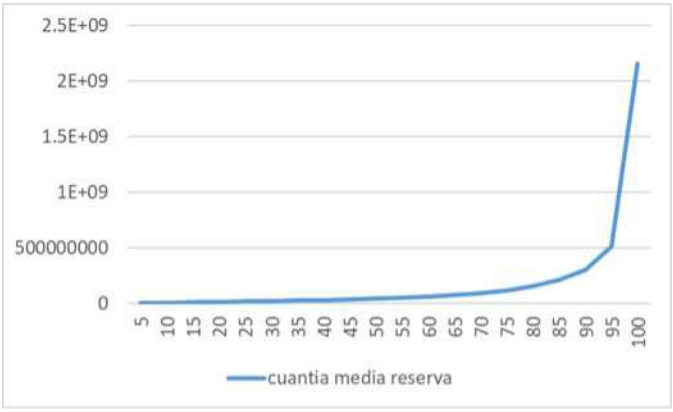


Figure 21 gives an estimate of the average amount allocated to the RIC on the basis of turnover by means of non-parametric estimators for the financial year 2019. There is a clear relationship between the two variables, as the size of the company increases, the amount allocated to the ICR also increases. On the basis of turnover figures of EUR 3 million, the function ceases to grow and the confidence intervals are broader, affecting the accuracy of the estimates obtained, as a result of the small number of large firms.

figure 21: average amount of CRM with turnover, E (C404 | UsarRIC = 1, figure neg) and 95 % confidence intervals (IC95). Year 2019

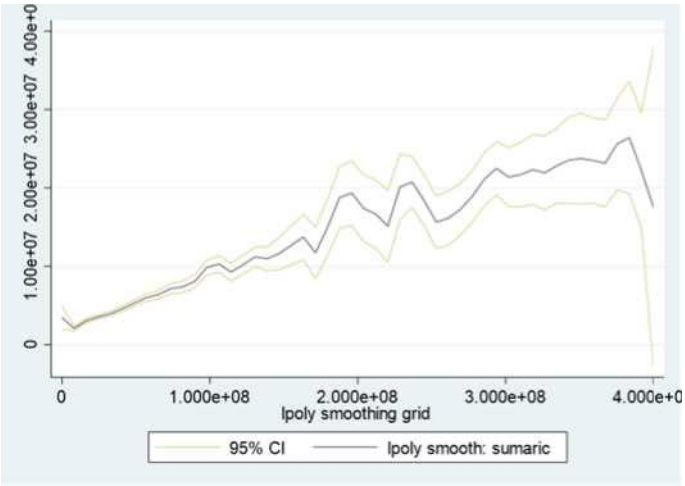
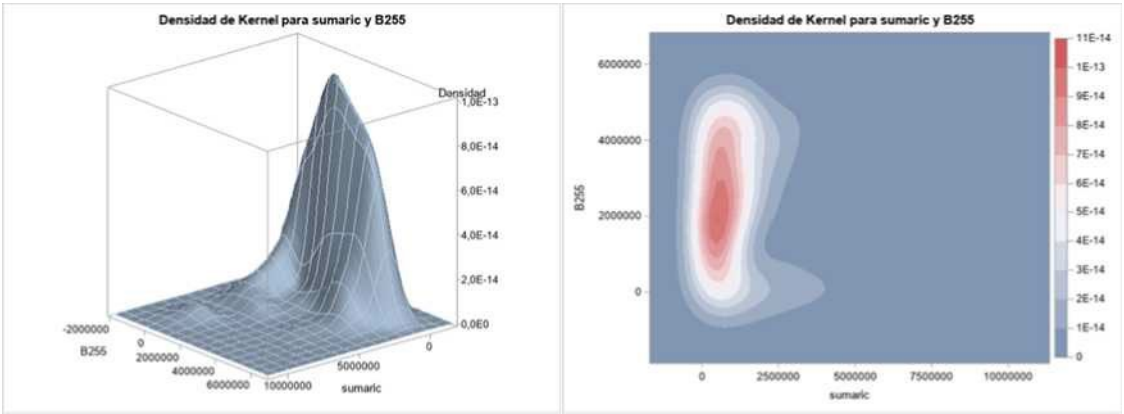


Figure 22 shows the two-dimensional density function of the amount allocated to the RIC and the turnover reported by the Canary Islands companies which used the tax benefit in 2019.

The higher the height of the density function and the more intense the colour of the surface graph, the higher the concentration of firms for these values of the variables analysed.

Figure 22: two-dimensional density (izqda.) and area (dcha.) of the variables turnover and amount with the CRP (C404). Year 2019



As can be seen in Figure 22, the distribution of companies takes the form of an inverted triangle, with many companies with turnover figures of less than EUR 40,000 and an allocation to the CRP of less than EUR 25,000 per financial year. The charts show a unimodal distribution, with fashion in low values of both variables, there are a large number of companies with a turnover of EUR 20,000 which make allocations to the CRP amounting to EUR 7,000. In addition, for low turnover amounts, a queue to the right can be seen, indicating the existence of companies using high ICMs in the 2019 financial year.

The following is an exploratory analysis of the classification of the use of the amounts provided to the ICR in the period 2015-2019, differentiating between whether they are classified as investment aid or operating aid. In model 282, each company reports, in boxes 7, 8 and 17 on regional operating and investment aid received under the Canary Islands REF:

- Box 07 – Reserve for investments in the Canary Islands (RIC), in the part regulated in Article 27.4.B.bis, C and D Law 19/1994 (Industrial Sector). Qualified as operating aid
- Box 08 – Reserve for investments in the Canary Islands (RIC), in the part regulated in Article 27.4.B.bis, C and D Law 19/1994 (Rest of sectors). Qualified as operating aid
- Box 17 – Reserve for investments in the Canary Islands (RIC), in the part regulated in Articles 27.4.A and B of Law 19/1994 (Industrial Sector). Qualified as investment aid.

With this information, two variables are generated that determine the rating of the use of the CRP:

UsoInv = Box 17

UsoFunci = Box 07 + Box 08.

In the period 2015-2019, the number of undertakings that used the amounts allocated to the ICR to undertake investments classified as investment aid amounted to 1.175, with an average amount of EUR 8,806 per year, while 3.009 companies used the ICR for investments classified as operating aid, with an average amount of EUR 11,807 in each financial year.

Figure 23: evolution of the number of undertakings using the ICR, and the amount depending on whether it qualifies as operating or investment aid to undertakings. Period 2015-2019

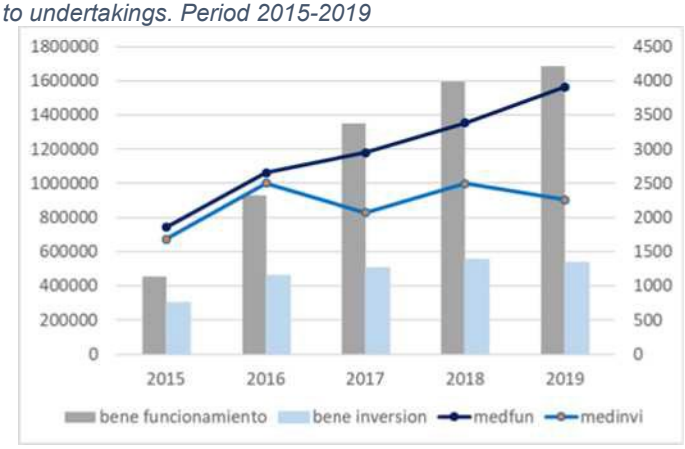
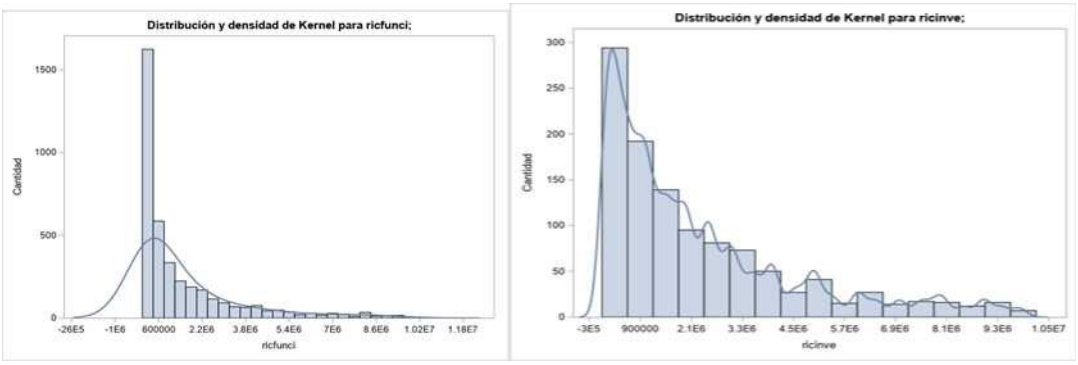


Figure 23 shows the trend in the average use of the amounts allocated to the CRP classified as operating aid and as investment aid to Canary Islands firms. As can be seen, the proportion of undertakings that materialise the amounts allocated to the ICR in making investments classified as operating aid (operating aid)is higher, a total of 1.139 undertakings in 2015 and 4.216 undertakings in 2019. However, the number of firms using the amounts allocated to the ICR in investments classified as investment aid (*bene investment)*is much lower, only 1.337 companies in 2019. Investments classified as operating aid are also higher than those classified as investment aid, with values of EUR 15,644 and EUR 9,040 respectively for 2019. The average amount of investment qualified as operating aid doubled in the analysis period, with an initial value of EUR 7,423 in 2015. However, the average amount of investments qualifying as investment aid shows much more moderate growth, with a value of EUR 6,721 in 2015.

Figure 24 shows the histogram and the estimate of the density of investments when they are classified as operating aid and when they are classified as investment aid. Both distributions are asymmetric, with a tail for high values of the variable on the right side.

It also highlights the concentration of investments on modal value, which is much higher for investments classified as operating aid than those classified as investment aid.

Figure 24: histogram and density function of the amount intended for operation (izqda.) and investment (dcha.). Year 2019



The year in which the allocation to the CRP is made and the financial year in which the investments take place need not coincide, since the rules allow investment to be made in the 3 years after the allocation to the CRP was made. The amounts allocated to the CRP must be invested within 3 years from the date of the chargeable event for the financial year in which the reserve was placed. This could imply a period of almost 4 years: that in which the CRP is provided and the taxable amount is reduced and the three subsequent ones are reduced. For this reason, when analysing the allocation to the CRP and the realisation of the investment, there is a decalage or delay between the two variables.

Figures 25 and 26 show the two-dimensional density functions that link the amount of the RIC declared in Corporate Tax (C404) to the information declaration of its intended use obtained from Form 282 in 2019. Both charts show a positive relationship between the endowment and its realisation into investments. On the other hand, both figures show a surface area function in the form of a *'se'*, reflecting the fact that there are a large number of undertakings that realise the investments almost entirely in investments classified as operating aid or investments classified as investment aid. However, there is also a non-negligible percentage of firms using the CRP for both types of aid.

Figure 25: two-dimensional density (izqda.) and surface density (dcha.) function of the variable amount used in the CRP and investments qualified as investment aid of model 282.
Year 2019

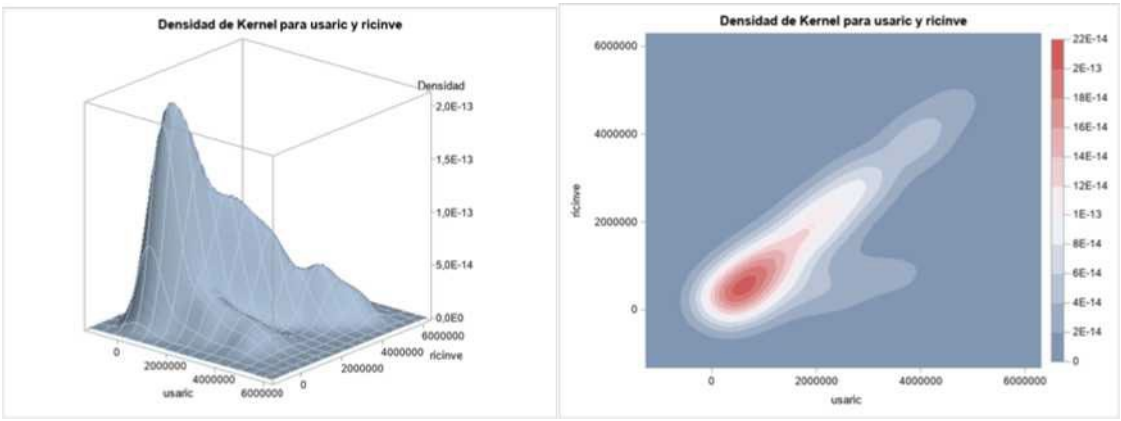
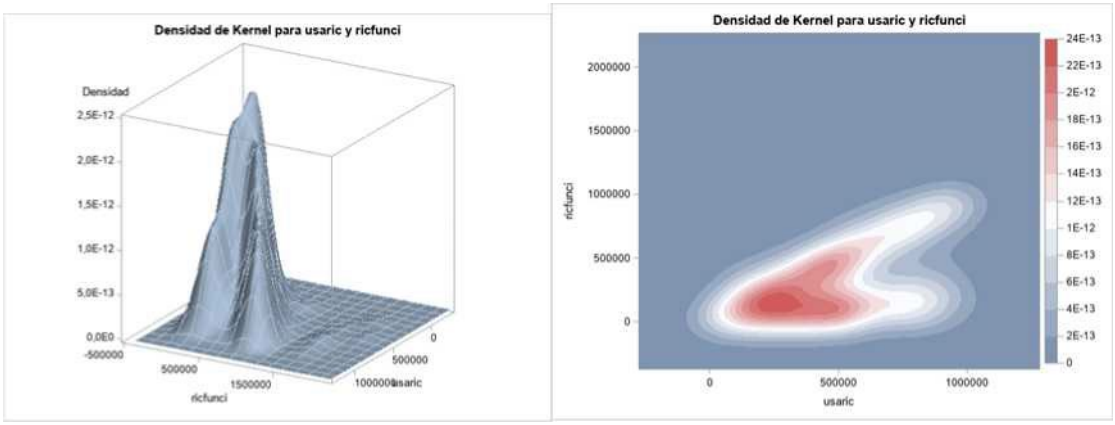


Figure 26: two-dimensional density (izqda.) and surface density (dcha.) function of the variable amount used in the CRP and investments qualified as operating aid of model 282.
Year 2019



3. ANALYSIS OF THE MAIN VARIABLES OF THE EVALUATION

First, we analyse the number of companies benefiting from the tax benefit of the ICM and its size with tax information from the AEAT file only. Secondly, the file resulting from the integration of information from the AEAT and the INE analyses the main variables to be assessed, namely the allocation to the RIC and the result variables (employment created, equity, reserves, fixed assets of the enterprise and expenditure on R & D & I).

3.1 . EXPLORATORY ANALYSIS USING INFORMATION TAXATION

The AEAT has provided tax information for some 49.000 companies per financial year for the years 2015-2019.

A new variable is created that captures the total employment*(*Employee) declared by the company during the year, such as the sum of permanent contract*staff*(Employees) and non-permanent staff (*Employat*).

Below is the information on the profit or loss variables of the companies for which the effects of the tax benefit are expected to be observed. Their effect on the following variables shall be checked: reserves (box B191 of model 200), total fixed assets (obtained as the sum of intangible assets – ctochair B102 – plus property, plant and equipment – box B111 – of model 200), net assetsor[12] (box B185) and total use.

Table 17 shows the average of the result variables in the years analysed, differentiating

whether or not the company made allocations to the RIC in the financial year (*UsaRIC*= 1 or 0). As can be seen, the use of the ICR is very low, with fewer than 1.000 companies per year in the treatment group, while those not benefiting from the tax benefit account for 98 % of the companies analysed. In addition, there are significant differences in the averages of the result variables, with values in the treatment group that at least double the values of the companies in the control group.

Table 17: evolution of number of enterprises, fixed assets, total employment, equity and reserves depending on UsaRIC

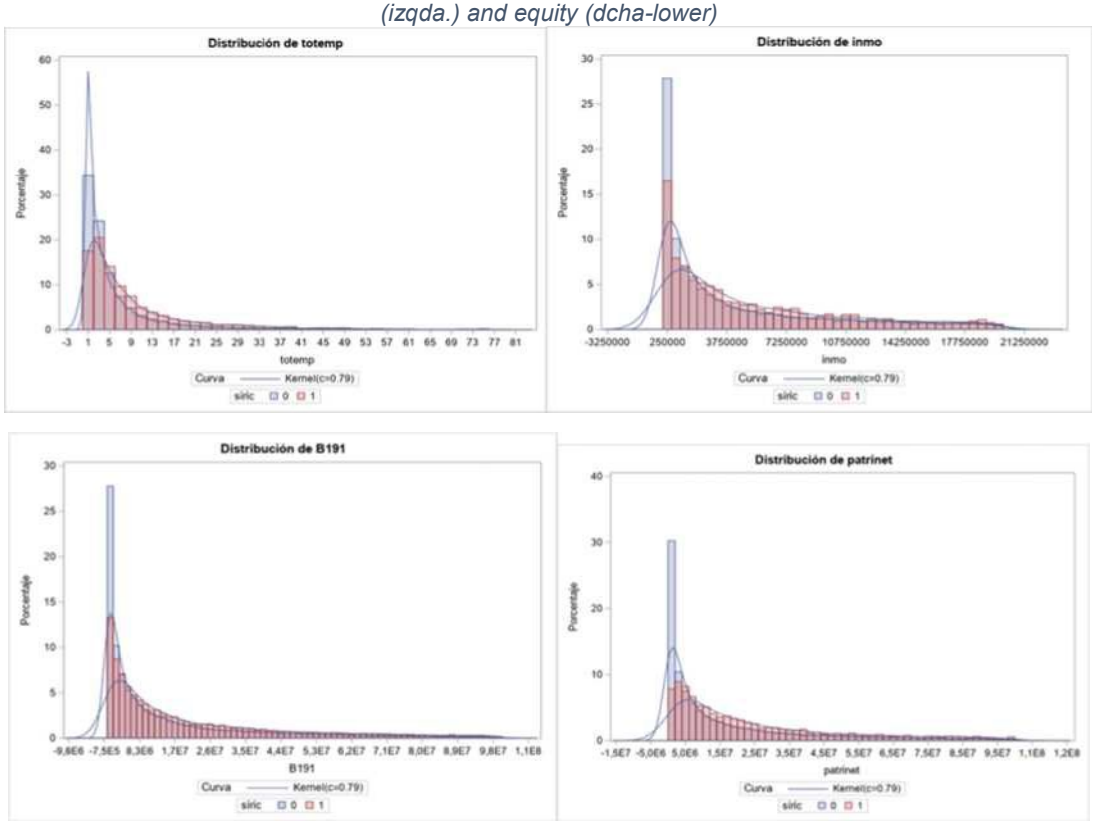
		2015	2016	2017	2018	2019
Control usaRIC = 0	No of undertakings	42.691	44.453	45.759	47.127	47.127
	Total employment,	4,7	4,958,5	4,960,2	5,362,2	5,463,1
	Reservations	49470215	48680878	47611056	52081226	53820475
	Total Inmovil	56250745	53998682	52255977	55502646	55910460
	Equity	75863014	77998691	76368281	82056965	85995
Treaties, usaRIC = 1	No of enterprises	4.215	4.993	5.601	5.682	5.701
	Total employment,	15,7	27,5	16,1	15,1	14,9
	Reservations	181775583	160979903	167056387	153635515	162040438
	Total Inmovil	134793117	121400373	127636937	118877503	121476277
	Equity	248733807	219771488	122810166	114578875	116646421

Source: Own production with data from the AEAT. In EUR cent.

Figure 27 shows the frequency histogram and the non-parametric estimator of the density function of the 4 result variables. In all cases, the group of companies that did not use the tax benefit shows much more concentrated distributions at low values, with a very strong modal value at the start of the distribution, while the companies that used the tax benefit of the ICR show a much more flat distribution, with a much less marked modal value and a clearer tail to the right than the other control group.

3.2 However, this profit or loss variable may be altered by its component items such as capital increases, legacies, valuation changes, etc.

Figure 27: histogram and density function of total employment (izqda.) and total fixed assets dcha-top) and reserves (izqda.) and equity (dcha-lower)



3.3 EXPLORATORY ANALYSIS USING INTEGRATED INFORMATION AEAT-INE

Despite the large amount of information provided by the AEAT database, it does not have any variables to analyse issues such as the type of assets in which the investment materialises (in R & D or innovation), whether companies have research departments and their size, etc. To analyse this information, the INE's Business Innovation Survey is used and, using the companies' TIN, the information provided by the AEAT is added. This integration results in a loss of observations in the units resident in the Canary Islands due to the fact that the INE's statistical operation is carried out on a representative sample of the population of enterprises in Spain. The loss of observations is noticeable, from having 49.000 companies per year (AEAT) to only 1.000 (*matching* AEAT-INE).

table 18: number of enterprises providing the ICR and percentage of all companies in the Canary Islands. Year: 2019. After AEAT matching – INE

DotaRIC	**Year**					
	2015	**2016**	**2017**	**2018**	**2019**	**Total**
0	987	1.015	565	986	897	4.350
	92,1	91,6	83,1	91,1	90,7	
1	84	93	95	97	92	461
	7,8	8,4	16,9	8,9	9,3	

Total	1.071	1.108	560	1.083	989	

Source: Own production with data from the AEAT. In EUR cent.

As shown in Table 18, the percentage of companies using the tax benefit of the ICR is very low in the analysis period, with values standing at 10.3 % of the companies analysed.

Figure 28: histogram and density function with ICMs in 2019. After matching *AEAT and INE*

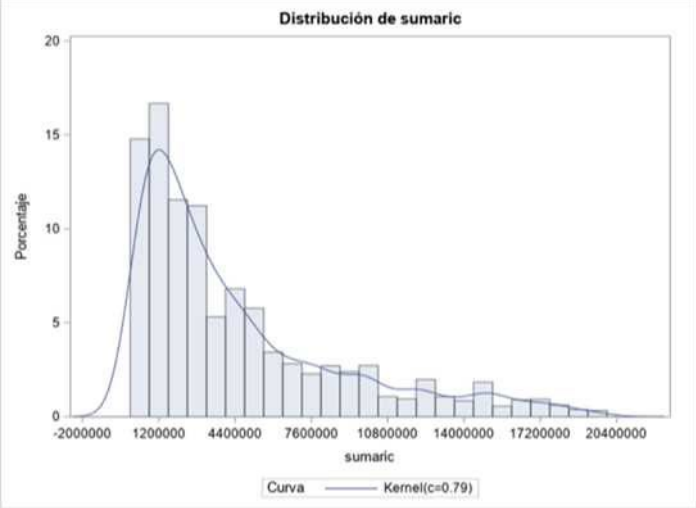


Figure 28 shows that, as in Figure 18, Canary Islands companies mostly allocate small amounts to the CRM, with a very pronounced modal value at the beginning of distribution.

After analysing the variable in the allocation of the CRP, which determines whether the company uses this tax benefit, the statistics describing the different dependent variables on which the effect of the tax benefit is to be checked is presented below. To those from the tax information provided by the AEAT, two variables of the results of the INE file have been added: the size of the enterprise (total paid and unpaid staff) and the total expenditure on research, development and innovation carried out by the enterprise during the year.

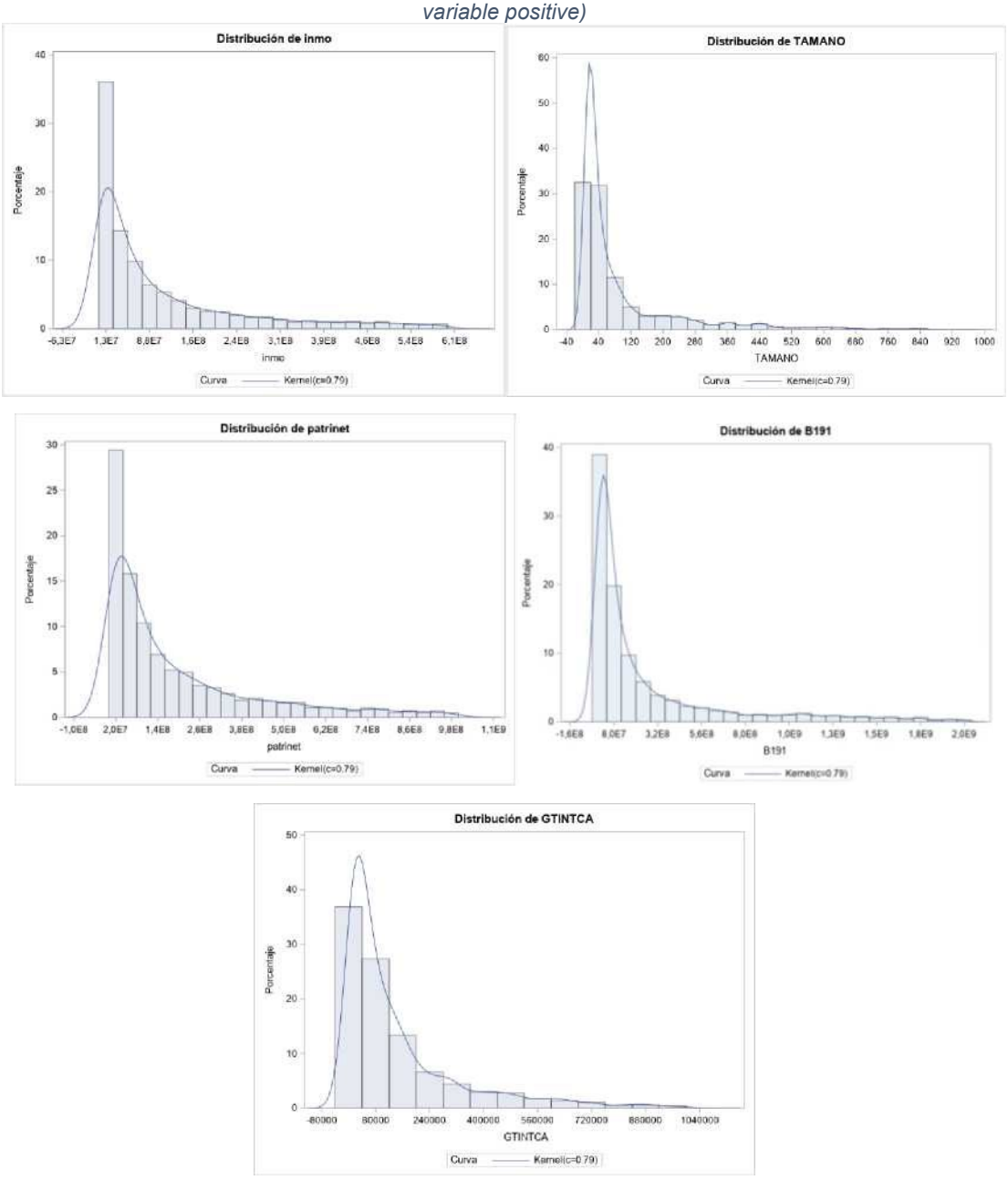
Table 19: descriptive statistics dependent variables. Year 2019

	Average	**per10**	**per25**	**per50**	**per75**	**per90**
R & D & I expenditure	76671	0	0	0	0	100000
inmotot	838070924	2349961	16529791	70623162	382565367	1.9E9
patrinet	1.19E9	7768045	35067715	147579708	642560056	2.9E9
size	118	11	16	32	100	283
totemp	103	10	13	29	93	258
reservation	788116876	877306	17526721	86620694	432341037	1.5E9

Source: Own production with data from the AEAT. In EUR cent.

The only result variable that is not continuous is the R & D & I expenditure of companies, because more than 75 % of companies do not do this type of expenditure. For this reason, and in order not to distort the figure of the frequency histogram for this variable, due to the accumulation of observations in 0, Figure 29 presents the histogram only for those companies that have a positive value of this dependent variable in the 2019 financial year.

figure 29: histogram and density function of total fixed assets and size (top), net worth and reserves (average) and expenditure on R & D & I (lower) of enterprises in 2019 (enterprises with value variable positive)



As shown in Figure 29, all result variables show asymmetric distributions, with a queue to the right, indicating the existence of a large number of companies with low values of the variables, with a modal value at the start of distribution and few units with high values.

To finalise this section, Table 20 shows the statistics describing the different result variables in 2019, differentiating between the companies that used the tax benefit in that year.

Table 20: descriptive statistics depending on whether they are endowed with the CRP. Year 2019

	DotaRIC	average	10	25	50	75	90
R & D & I expenditure	0	94622	0	0	0	0	118364
	1	25808	0	0	0	0	46259
inmotot	0	801873581	1576371	13768442	57274730	287534964	1.7E9
	1	940349464	7840439	26828390	121245804	582643062	2.8E9
patrinet	0	1.1E9	4322267	27681509	119136654	493018692	2.9E9
	1	1.5E9	23710205	65789048	214674497	1.1E9	3.0E9
reservations	0	623061412	525	12059211	68448425	303431582	1.3E9
	1	1.2E9	12848175	41109649	169809111	710366738	2.5E9
size	0	117	11	16	32	94	264
	1	121	11	19	32	121	344
totemp	0	101	9	14	29	88	248
	1	108	10	17	32	126	334

Source: own production with data from the AEAT. In EUR cent

Companies benefiting from the tax incentive have higher values in the variables showing net worth, reserves and number of employees (as measured by the AEAT – totemp – or the INE – size) and expenditure on R & D & I. However, companies that made allocations to the ICR in 2019 had lower fixed asset items than companies that did not avail themselves of this tax benefit.

4. ASSESSMENT OF IMPACTS

This section analyses the effect of the tax benefit on the variables of interest indicated above. The theoretical design of the impact assessment is presented below.

4.1 DESIGN OF IMPACT ASSESSMENT

The impact assessment seeks to answer the following question: what would have happened to a Canary Islands company making contributions to the ICR if it had not benefited from the tax advantage? In other words, if you did not make any allocations to the CRP, what would have happened to it at the level of fixed assets, reserves, equity, employment and R & D & I expenditure?

In our context, counterfactual impact assessment techniques may be compromised by the existence of other characteristics of companies that have an influence on the use of the tax benefit, such as, for example, the sector of activity to which the company belongs, the existence of agreements with other companies, the size of the enterprise, etc. These characteristics may lead to selection biases arising both from observable variables and by the existence of unobservable variables. When selection biases are due to observed characteristics, they can be avoided by identifying and using variables explaining the behaviour of enterprises in the absence of the programme. In this context, the counterfactual can be estimated using the group of non-participating companies, i.e. those that do not provide the CRP. However, it is difficult to have all the relevant characteristics that may have an influence on companies making allocations to the ICR, i.e. there are unobserved characteristics that may affect participation in the programme. To solve the problems of selection bias due to unobserved variable existence, a data panel is used to isolate the effect of the tax benefit by properly treating the variation of Canary Islands firms over time.

The impact assessment diagram is given by the following situation:

Figure 30: impact assessment diagram without incorporating time into the analysis

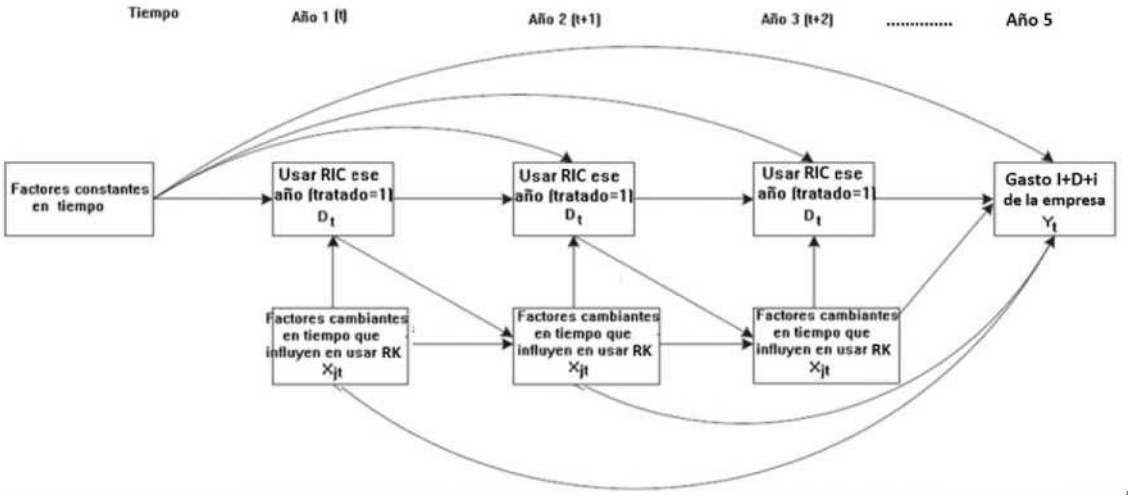
AND

Where X is a set of characteristics of the enterprises, such as the sector of activity, their accounting results, etc.; D indicates whether the undertaking has provided the CRP; e Y is the variable where we want to see the impact of the tax benefit analysed.

As information is available for the years 2015-2019, companies may benefit from the tax benefit

in more than one financial year, which has consequences for the estimation of D's impact on Y. The correct assessment diagram for this contingency is presented in Figure 31.

Figure 31: assessment diagram with dynamic treatment



Where X_j is a set of variables that exist at time of time t, e.g. turnover, personnel costs, or assets of the enterprise; D_t indicates whether the undertaking is treated at time t (i.e. whether it makes endowments to the CRP). Looking at the diagram in Figure 16, X_{j2} is affected by the exposure to programme D_1, so making allocations to the CRM in the financial year '1' may influence the level of the company's assets in the following period, X_{j2}.

At the same time, X_2 is a confusing factor that pollutes the relationship between D_2 and Y, i.e. the company's assets or turnover may be related to having made endowments to the RIC (D_2), and will also be associated with the company's level of own funds (Y_2). In the traditional method that adjusts for observed variables, if conditioned in both D_1 and X_2, it is 'over-adjusted' for a variable in the causal diagram, thus removing the variability associated with the treatment that varies over time. However, if not controlled by X_2, the potential confusion bias that may exist is ignored, leading to biased estimates of D's impact on Y.

To estimate the impact of a time-varying programme, Marginal Structural Models (MMEs) can be used that are able to consider biases due to confounding factors, which can also be considered endogenous over time. These models estimate the effect of treatment on the output variable using the Inverse*Probability Treatment Weight* (IPTW) as the weight of available observations.

The following steps are taken to estimate an MEM:

1. *First stage: estimation of the probability of being a beneficiary and censorship*

In the first step of estimating the MEM, the effect of certain characteristics of an enterprise on the probability of endowments to the RIC in a financial year is estimated, considering as a dependent variable the dicotomic treatment variable that captures whether the enterprise provides RIC (Dit = 1) or not (Dit = 0). A Logit approach is used to estimate the model:

$$\frac{EXP\,(Por + Pi'S_{ij}(d_{j-i}'))}{1 + EXP\,(Por + Pi'_{YES\,ij}(YES_{j-i}))} \quad (1)$$

Where P (.) is the probability that an enterprise will make endowments to the CRP, subject to a number of pre-treatment characteristics; D_{ij}indicates whether entity 'i' provides the RIC at time 'j'; X_{ij} are the time-dependent confounding factors that may be affected by previous treatments; in addition, for each enterprise, a new variable is defined as the historical treatment and variables observed so far *j* as $D^{\cdot}$ = {D, I, D_2. . ., D_i · *u* = {X_{ii}, *xí 2,...,* $X_j$la.

The function is estimated (1) and with the values of the parameters of the equation and the

characteristics of each enterprise the P *is generated* ($D_{tj} = 1 |_{x\,j}$- (d_{j-1})).

The*propensity Score* (PS) 12 of endowments to the RIC is the probability that a Canary Islands company will make endowments to the RIC (D = 1) on the basis of its observed characteristics (possible confusion factors, called X_j). Thus, all the information contained in possible confounding factors is summarised in a single variable.

2. *Second stage: calculation of the weighting – IPTW*

The IPTW method allows the calculation of the average effect of the treatment on the marginal distribution of the co-variables observed in the study sample, or Saving the prediction value $P(.)$ previously generated to form a weightingn13. This creates a 'pseudo-population' in which the co-variables and the allocation of treatment are independent of each other, as is the case when it is in a randomised experimental design.

To calculate IPTW, the treatment weighting is initially obtained by the reverse of the conditional probability of benefiting from a company:

$$_{w}D = \frac{D_{Ij}}{P(B_{ij} = \text{excl. j -i})} + \frac{1\text{-}D_{Ij}}{1\text{-}P(D_{ij} = \text{definitely j la j-i})} \quad (2)$$

These weights make the final calculation of the impact of the tax benefit analysed.

3. *Third step: estimation of the impact of contributing to the CRM on the result variables*.

This weighted 'pseudo-population' is then used to estimate the relationship between exposure D – making allocations to the RIC – and the result variables:

$$Y_{it} = P_{or} + P_i D_{it} + P_2 Z_{JJT} + U_{it} \quad (3)$$

Parameter $_1$ capturesthe effect of making allocations to the CRM on the various result variables Y (fixed assets, reserves, equity, employment, expenditure on R & D & I). Where D_{it} is a dicotomic variable indicating whether the undertaking made allocations to the RIC; and Z_j is the time-changing or fully exogenous factors of entities.

Model 3, and using the weights $w/$ s of the previous stage as a weighting function, corrects the possible imbalance in the confounding factors due to the historical beneficiary and therefore resolving the problem of confounding factors without the need to simultaneously insert confounding factor X into the equation estimating the relationship between D and Y.

4.2 EVALUATION RESULTS

4.2.1. Estimation of the impact of the ICR on enterprise result variables

Table 21 shows the results of the estimation of the impact of equation (3) for different dependent variables that have been considered in analysis. The estimate is captured in parameter No $_1$ of that equation.

Considering the distribution presented in Figure 29, logarithms have been taken from the variables to obtain symmetric and standardised distributions. Next, with the variable in logarithms, different types of estimation methods have been considered. Total fixed assets, net worth and total employment variables are continuous variables, reserves and expenditure on R & D & I show a non-negligible percentage of zero values, so an '*Zero inflated Poisson* (ZIP)' model has been estimated to estimate the effect on these result variables. The results of the impact assessment estimation are shown in Table 21.

12Rosenbaum and Rubin indicate that the PS is able to explain the imbalance between treatment and control groups and may reduce bias by simulating a species of 'virtual randomisation' of subjects in treatment groups.

13EThis weight is a strategy that has been used for a long time in sampling surveys (Horvitz and Thompson, 1952).

Table 21: estimate of the parameter associated with providing RIC (equation (3)). P-value in brackets

Variable	Log (total employment)	Log (size)	Log (total inmov)	Log (reservation)	Log (Employers)	Log (R & D & I expenditure)
D_u	0.205 (0,001)	0,179 (0,001)	1,026 (0,001)	0,045 (0,001)	0,523 (0,001)	— 0,098 (0,691)

The results show a positive and statistically significant impact of the tax benefit on the increase in the company's employment, on its reserve levels and on the equity item. However, the impact of making allocations to the ICR does not have statistically significant effects on total fixed assets and business R & D & I expenditure.

111. FIRST EVALUATION REPORT OF THE STATE AID SCHEME 'REF INVESTMENT' AS REGARDS INCENTIVES INVESTMENT GOVERNED BY ARTICLE 25 OF THE LAW 19/1994 OF 6 JULY 2009 AMENDING THE SCHEME ECONOMIC AND FISCAL OF THE CANARY ISLANDS

111.1. INTRODUCTION

The evaluation plan updated as set out in Chapter I of this report contains the following table with the result indicators based on the evaluation questions and their relationship with the objectives of the aid scheme. The difference with the table in the evaluation plan approved by the Commission lies in the addition of the last row, which is the area presented in this chapter.

T 2Structural enterprise statistics in industry, trade and market services (ISTAC)

Evaluation question	Indicator	Source	Frequency	Level	Population
Does investment aid, as a whole, facilitate the creation of unemployment?	Number of jobs created	Administrative records of the tax administration (AEAT IS statistics and model 190 of the AEAT)	Annual	Company	All companies
Does the way in which the ICM, which creates unemployment, facilitate the creation of new jobs in beneficiary companies?	Number of jobs created in beneficiary enterprises	Administrative records of the tax administration (AEAT IS statistics and model 190 of the AEAT)	Annual	Company	Beneficiaries
What is the effect of the investment aid in the REF on the Canary Islands' production structure?	Number of enterprises under the different CNAE categorisation	Administrative records of the tax administration (AEAT IS statistics and model 190 of the AEAT)	Annual	Company	All companies
To what extent do the investment aid in the REF incentivise research and development? Does the intensity of technological innovation boost?	R & D expenditure in high-tech sectors Intensity of technological innovation (Expenditure on innovative activities/turnover x100)	Official bodies producing statistics (PITEC Data Panel or Statistics on R & D activities of the INE)	Annual	Company	Enterprises with more than 200 employees

To what extent does the incentive in indirect taxation enable investment decisions?	Tangible and intangible assets of enterprises	Administrative records of ATC (Model 416, Modelo 600) and AEAT (ATC Agreement with AEAT)	Annual	Company	Beneficiary companies

The Autonomous Community of the Canary Islands is responsible for preparing this part of the report on the evaluation of the State aid scheme 'REF INVERSION' as regards the tax on transfers of assets and documented legal acts and the Canary Islands' General Indirect Tax, managed by the Canary Islands Tax Agency (ATC).

To this end, ATC and AEAT signed the agreement referred to in Chapter I.

According to the Evaluation Plan, the scope of this study includes the investment incentives contained in Article 25 of Law 19/1994 of 6 July 2009 amending the Canary Islands' Economic and Tax Regime, which is set out in a series of tax measures designed to encourage private investment by means of the indirect taxation exemption mechanism that tax this type of transaction.

That article provides, on the one hand, for the exemption from the tax on capital transfers and documented legalacts, in the form of transfers of assets (TPO) and corporate transactions (OS), of certain transactions for the acquisition of capital goods or intangible fixed assets – subject to a series of conditions – for entities subject to corporate tax with a tax domicile in the Canary Islands, or operating in the Canary Islands through a permanent establishment where the income from that tax is deemed to have been produced in the Canary Islands. Under no circumstances does this incentive apply to employers or professionals who are natural persons.

Furthermore, the exemption from the Canary Islands General Indirect Tax (IGIC) is established for entities subject to corporation tax or operating in the Canary Islands through a permanent establishment, for the supply or import of capital goods, and in certain cases of supply of services relating to the transfer of intangible fixed assets, where those entities are purchasers of those goods or the transferee of the service, respectively, and are not entitled to full deduction of input tax. This is a full exemption for the transferors of capital goods and intangible assets exempt under this incentive who are entitled to deduct input tax on the acquisition or importation of such goods.

The IGIC is a State tax of an indirect nature on supplies of goods and services by traders and professionals, as well as on imports of goods into the Canary Islands, which, with a structure similar to that of value added tax (VAT), is levied on the factors of production incorporated at each stage of the production process, although, while respecting the Canary Islands speciality, this leads to a differentiated and lower indirect tax burden than in the rest of the national territory by setting lower rates – the application of a zero rate to certain goods and services in need – and the exemption of supplies of goods in the course of a commercial activity at the retail stage.

The investment incentives referred to in Article 25 require, for their application, that the acquisition or importation of capital goods or intangible fixed assets be located and used in the Canary Islands, which must be new, unless the purchaser or importer is of a small size, in which case they may be used provided that they have not previously benefited from this exemption.

In respect of items of property, plant and equipment, they must be treated as capital goods within the meaning of Article 40 (8) and (9) of Law 20/1991 and purchased or imported as part of an initial investment. This exemption shall not apply to land, whether built up or not, unless certain activities are concerned and subject to compliance with certain requirements. The exemption does not cover capital goods intended for hire, except in certain cases, or transport elements which are objectively considered to be exclusively for industrial, commercial,

agricultural, clinical or scientific purposes.

In respect of intangible fixed assets, the exemption shall apply only in relation to the acquisition of the right to use industrial or intellectual property, unpatented knowledge, and administrative concessions, which comply with certain conditions and requirements.

The above taxes are self-assessed by the taxpayers and record their entitlement to the tax advantage. The tax models established for the declaration of transactions subject to tax benefit by Article 25 of the aforementioned Law 19/1994 are as follows:

- The tax on transfers of assets and legal acts documented using Form 600, approved by Order of 9 June 2006 of the Regional Ministry of Economic Affairs and Finance, as last amended by the Decision of 28 December 2018 of the Director of the Canary Islands Tax Agency.

- As regards IGIC, Form 416 of the annual declaration of exempt transactions pursuant to Article 25 of Law 19/1994, approved by Order of 28 February 2006 and Form 452 on the declaration of supplies of fuels exempt from the Arbitrio sobre Importaciones y Entregas de Mercancías in the Canary Islands.

In the detailed analysis of the tax models submitted by taxpayers, the result is as follows:

Table 2 Tax advantage in the tax on transfers of assets and legal acts documented by groups of economic activity in IAE. 2016-2021. Canary Islands

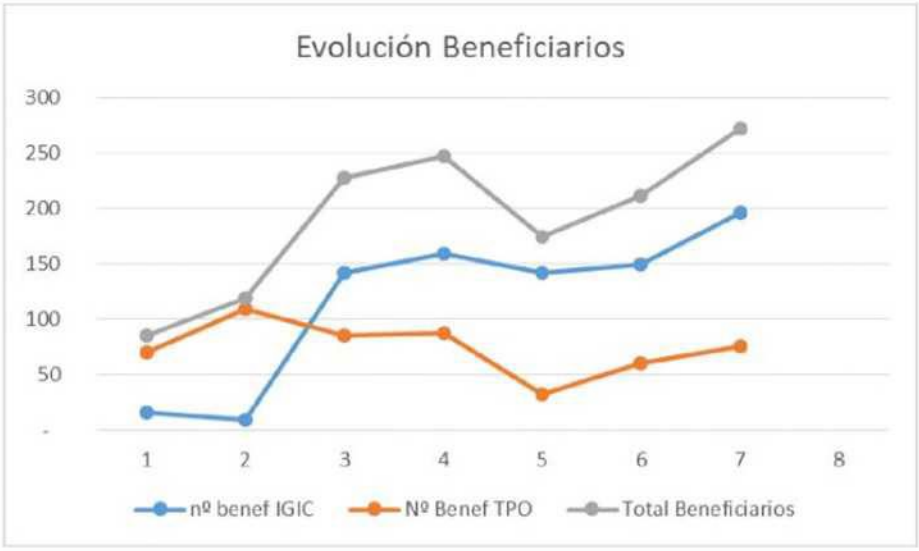
ECONOMIC ACTIVITY. IAE GROUPING		2016		2017		2018		2019		2020		2021		Total	
		No.	Public	No.	Public	No.	Public	No.	Public	No.	Public	No. Benef.	Public	No. Benef.	Public
Agriculture without AEI	6	3	16.013,06	3	29.617,64	2	14.625,00	1	6.770,40			1	5.200,00	10	72.226,10
Livestock farming without AEI	6							1	6.500,00					1	6.500,00
Non-metallic mineral products industries	124							1	83.336,10					1	83.336,10
Manufacture of metal products (except machinery and transport equipment)	131							1	10.203,62	1	2.206,02			2	12.409,64
Manufacture of food products and beverages	141			1	18.850,00					1	19.500,00			2	38.350,00
Other food, beverage and tobacco industries	142	1	23.725,00			1	84.500,00							2	108.225,00
Manufacture of wood, cork and furniture of wood	146	1	9.425,00											1	9.425,00
Construction	150	3	29.445,00	14	159.874,47	3	32.455,15	8	121.137,32	2	23.018,60	3	13.455,00	33	379.385,53
Wholesale trade	161	4	106.925,00	1	35.750,00	3	30.680,00	4	124.800,00	2	26.455,65	6	81.364,63	20	405.975,28
Wholesale on a fee or contract basis	163					3	18.964,17					1	7.670,00	4	26.634,17
Retail sale of food, beverages and tobacco products, carried out in EPS.	164	3	13.154,18	1	4.875,00					1	14.625,00			5	32.654,18
Retail sale of non-food industrial products carried out in EPS	165	5	52.048,26	14	588.974,99	7	209.109,34	12	213.330,34	1	16.250,00	4	35.055,32	43	1.114.768,24
Mixed or integrated trade; retail sale outside a fixed place of business. (...)	166	2	26.017,39	1	7.215,00	2	68.386,50	3	51.855,71			1	10.397,75	9	163.872,34
Food service	167	3	35.372,99	5	31.330,00	2	23.725,00	3	56.132,54	1	1.646,45	3	87.125,19	17	235.332,16
Accommodation service	168	8	61.213,75	12	555.157,82	15	82.008,94	6	81.983,97	3	36.725,00	7	107.235,62	51	924.325,10
Repairs	169					1	20.475,00	1	2.114,62	1	7.475,00	1	5.850,00	4	35.914,62
Other land transport	172	1	5,85	1	53.300,00			1	130,00			1	7.335,56	4	60.771,41
Activities ancillary to transport	175					1	2.903,45	1	13.000,00	1	12.032,16	1	6.175,00	4	34.110,61
Old Fi institutions	181			1	7.755,20	1	195,00							2	7.950,20
Nursing and insurance auxiliaries. Real estate activities	183	8	214.867,30	11	70.036,39	7	272.318,50	9	94.671,48	2	14.538,42	8	103.964,33	45	770.396,42
Services provided to undertakings	184	2	6.370,00	10	91.546,18	6	30.957,85	14	158.908,37	6	39.219,78	3	26.500,82	41	353.502,99
Rental of movable property	185			1	1.300,00	1	1.500,00							2	2.800,00
Renting of immovable property	186	15	141.663,29	14	188.967,47	13	175.299,61	7	126.975,97	3	71.289,23	5	119.275,00	57	823.470,56
Agricultural, livestock, forestry and fisheries services	191			1	3.250,00					1	1.950,00			2	5.200,00
Sanitation, cleaning and similar services. Fire and similar services	192	2	7.910,50					1	3.575,00			1	2.881,63	4	14.367,13
Education and research	193			1	3.775,92	1	3.575,00	2	20.277,05					4	27.627,97
Health and veterinary services	194	2	72.657,00			1	5.525,00	3	10.193,72			2	33.995,00	8	122.370,72
Social assistance and services	195					1	5.643,37							1	5.643,37
Recreational and cultural services	196			1	7.800,00	3	43.621,68	2	25.025,00	1	172.127,67	4	16.900,00	11	265.474,36
Personal services	197			1	13.000,00									1	13.000,00
Entertainment parks, fairs and other events. Organisation of conferences. Parks or fairs	198											2	26.455,00	2	26.455,00
Services not elsewhere classified	199					2	19.825,00					1	6.467,02	3	26.292,02
Extraction, preparation and agglomeration of solid combusti and coke ovens	211					1	4.876,98							1	4.876,98
Public and private affairs managers	272							1	3.727,19					1	3.727,19
Legal professionals	273			2	16.113,50									2	16.113,50
Economic and Finance Professionals, Investment and Markets Specialists and similar	274	1	7.800,00			1	3.900,00			1	3.006,25			3	14.706,25
No census activity in IGIC		6	195.345,14	13	192.996,98	8	171.774,40	6	130.265,53	4	23.880,62	6	78.258,83	43	792.521,49
Overall total		**70**	**1.019.958,69**	**109**	**2.081.486,54**	**86**	**1.326.844,94**	**88**	**1.344.913,90**	**32**	**485.945,84**	**61**	**781.561,69**	**446**	**7.040.711,61**

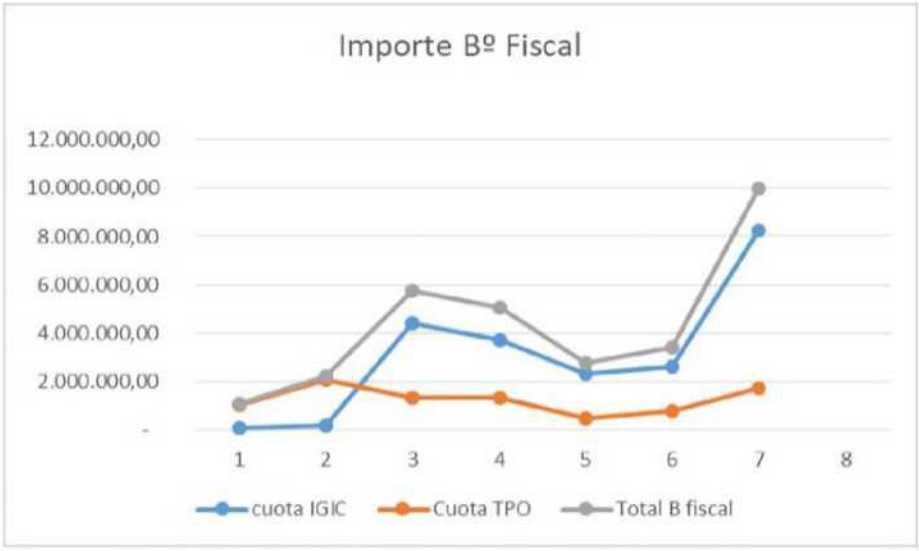
Table 3. Tax advantage in the Canary Islands' General Indirect Tax by groups of economic activity in IAE. 2016-2021. Canary Islands.

ECONOMIC ACTIVITY. IAE GROUPING		2016		2017		2018		2019		2020		2021		Total	
		No. Benef.	Public	No.	Public	No. Benef.	Public	No.	Public	No.	Public	No.	Public	No.	Public
Agriculture	61					1	1.197,70	1	0,07	1	96,74			3	1.294,50
Production, transmission and distribution of electricity, gas, steam and hot water	115					2	150,24			1	20.300,00			3	20.450,24
Water abstraction, treatment and distribution, and ice making	116							1	37.995,54					1	37.995,54
Non-metallic mineral products industries	124									2	783,89	1	30.521,26	3	31.305,14
Manufacture of metal products (except machinery and transport equipment)	131					4	12.377,82	4	48.228,93	7	57.095,18	5	3.289,29	20	120.991,22
Construction of machinery and mechanical equipment	132							1	28,99	1	4.573,31	1	2.835,00	3	7.437,30
Electrical engineering	134											1	747,62	1	747,62
Manufacture of electronic equipment (excluding computers)	135									1	1.400,00	1	1.953,00	2	3.353,00
Shipbuilding, repairing and maintenance	137											1	46.075,21	1	46.075,21
Manufacture of precision, optical and similar instruments	139							1	1.858,85	1	788,65			2	2.647,50
Manufacture of food products and beverages	141							3	73.452,08	2	77.845,21	1	74.489,50	6	225.786,80
Other food, beverage and tobacco industries	142					1	1.903,20	2	835,46			3	1.924,25	6	4.662,90
Manufacture of wood, cork and furniture of wood	146							1	792,60			1	1.310,25	2	2.102,86
Paper industry and manufacture of paper articles; printing, publishing	147					1	2.289,72	1	1.477,45	4	10.455,93	2	94.543,86	8	108.766,96
Construction	150	1	332,45			43	1.285.651,89	33	950.929,28	33	910.972,0	30	880.779,97	140	4.028.665,61
Wholesale trade	161	1	16.348,91	1	2.466,53	16	398.884,72	26	1.528.919,82	14	266.048,9	17	155.161,29	75	2.367.830,24
Product recall	162					1	19.295,59							1	19.295,59
Wholesale on a fee or contract basis	163					1	8.178,81					2	5.302,42	3	13.481,24
Retail sale of foodstuffs, beverages and tobacco in E.P.s	164	1	34.662,37	3	72.700,00	6	81.568,44	2	81.689,43	2	103.100,77	3	94.896,51	17	468.617,52
Retail sale of non-food industrial products carried out in E.P.s	165	2	507,60			7	12.509,95	13	238.387,21	12	74.235,60	9	34.728,77	43	360.369,13
Mixed or integrated trade; retail sale away from permanent business premises (ambulance, merchandise, etc.)	166	1	18.914,48	3	43.917,41	3	50.647,27	2	96.137,17	3	70.646,00	3	52.115,44	15	332.377,77
Food service	167							1	279,50			2	1.140,07	3	1.419,57
Accommodation service	168					2	59.552,50	5	51.441,10	11	248.081,3	7	14.726,26	25	373.801,22
Repairs	169					3	7.251,08	5	5.837,08	1	1.477,88	3	6.827,28	12	21.393,31

Other land transport	172					3	1.224,47	2	50.228,08	4	14.043,64	5	5.834,73	14	71.330,92
Activities ancillary to transport	175			1	38.564,96	1	152,80	4	242.370,33	2	107.784,82	1	8.842,23	9	397.715,14
Financial and insurance auxiliaries. Real estate activities	183					6	1.419.880,54	6	47.515,31	1	5.813,53	3	338.445,40	16	1.811.654,78
Services provided to undertakings	184					12	142.069,25	18	72.502,56	14	183.555,68	13	403.646,30	57	801.773,78
Rental of movable property	185					1	1.609,86	3	2.134,74	3	4.521,93	5	31.940,01	12	40.206,55
Renting of immovable property	186					7	17.528,34	7	86.805,87	7	63.921,97	6	29.383,74	27	197.639,92
Sanitation, cleaning and similar services. Fire and similar services	192					3	168.205,62	1	62.779,79			2	46.290,63	6	277.276,04
Education and research	193							1	14,24					1	14,24
Health and veterinary services	194	3	10.384,03			1	8.558,98	1	2.275,00	2	3.125,80	2	14.248,00	9	38.591,80
Recreational and cultural services	196	1	191,17			1	9,10	2	6.808,08	1	280,00	2	4.123,24	7	11.411,59
Personal services	197											1	310,27	1	310,27
Services not elsewhere classified	199					2	1.566,12					1	6.541,86	3	8.107,98
Technical Agricultural and Forestry Engineers, Biology, Agronomy and Forestry Technicians and the like	202											1	252,00	1	252,00
Commercial agents	251									1	3.271,59			1	3.271,59
Other professionals related to trade and hospitality, n.e.s.	259					1	143.990,00							1	143.990,00
Public and private affairs managers	272											1	525,00	1	525,00
Legal professionals	273									1	367,99	1	1.882,09	2	2.250,09
Economic and Finance Professionals, Investment and Markets Specialists and similar	274					1	3.700,92							1	3.700,92
Advertising professionals	275					1	4.728,61			1	471,87			2	5.200,48
IT and Exacto Science Professionals	276									2	147,24	1	1.446,20	3	1.593,44
Professionals from various activities	277									1	734,71			1	734,71
Insurance	282					1	2.225,52					1	190,33	2	2.415,85
Professionals related to lotteries, betting and other games of chance, gambling and gambling	287					1	1.475,87							1	1.475,87
Other Sports activities NCOP	304											1	992,60	1	992,60
OTHER	7	1	51,10			1	510.605,30							2	510.656,40
Not registered IAE IGIC		5	4.626,68	2	4.628,92	8	51.713,06	12	45.809,86	6	74.018,68	10	220.504,85	43	401.302,05
Overall total		**16**	**86.018,79**	**10**	**162.277,83**	**142**	**4.420.703,2**	**159**	**3.737.534,41**	**142**	**2.309.960,94**	**150**	**2.618.766,74**	**619**	**13.335.262,00**

Figure 32 Benefit developments – Tax amount





111.2. METHODOLOGICAL NOTE

Structural Enterprise Statistics is a statistical operation that forms part of both the National Statistical Plan and the Canary Islands Statistical Plan. This is a statistical operation which integrates administrative information (tax data for economic variables and social security data for employment variables) with that obtained through surveys.

This statistical operation has a high coverage of companies offering market products and services in the Canary Islands. In terms of the National Classification of Economic Activities (CNAE), the activities covered are as follows:

National Classification of Economic Activities (CNAE)

Sectors	Activities according to CNAE-2009		Divisions
Industrial sector	B	Extractive industries	05-09
	C	Manufacturing	10-33
	D	Electricity, gas, steam and air conditioning supply	35
	E	Water supply, sewerage, waste management and remediation activities	36-39
Sector Trade	G	Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47
Sector Services	H	Transportation and storage	49-53
	I	Hospitality	55-56
	J	Information and communications	58-63
	L	Real estate activities	68
	M	Professional, scientific and technical activities	69-75
	N	Administrative and support service activities	77-82
	R	Arts, entertainment and recreation	90-93
	S	Other services (except 94 Associative activities)	95-96

The sample in the Canary Islands exceeds 10.000 companies each year, representing around 100.000 companies on average. All companies with 50 or more employees and those with fewer employees generate high turnover are included in the sample.

The employment in the Canary Islands of the sampled companies is close to 280.000 people, almost one third of the total number of employees in the Canary Islands; once the uplift factors have been used, this figure is close to 520.000 employees.

111.3. INDICATORS FOR INVESTMENT IN FIXED ASSETS MATERIAL AND INTANGIBLE

Since the ATC, the indicator of fixed assets has been considered from an accounting perspective, broken down into tangible assets and intangible or intangible assets. This is irrespective of whether they are treated as capital goods for tax purposes in accordance with Article 40 (8) and (9) of Law 20/1991, whether or not they are acquired or imported in the context of an initial investment, and of the other requirements to be considered for the purposes of applying the incentive under analysis. The concepts referred to in the following tables are defined below:

1.1 NVERSION IN TANGIBLE ASSETS

Included are new and existing tangible capital goods, whether bought from third parties, acquired under a financial lease contract (i.e. the right to use a durable good in exchange for rental payments over a predetermined and protracted term) or produced for own use (i.e. Capitalised production of tangible capital goods), having a useful life of more than one year including non-produced tangible goods such as land. Goods acquired through restructurations (such as mergers, take-overs, break-ups, split-off) are excluded. Current maintenance costs are excluded. Current maintenance costs are excluded.

This is the gross investment during the reference period in tangible goods. A differentiation of investment according to the type of property is established.

The following concepts are distinguished:

1. Land and natural assets. These include urban land, rural land, other non-urban land, mines and quarries, excluding any construction on the surface. This includes the adaptation of land and natural assets (levelling, piping, roads and roads).

2. Buildings, constructions and renovations. It includes the cost of existing buildings and structures purchased during the reporting period, as well as expenditure on the construction, renovation or conversion of buildings.

In the case of purchase of buildings including land, if the value of the two components is not separable, the total is recorded under this heading if the value of the buildings is estimated to exceed that of the land.

With regard to the transformation of buildings, all additions, renovations, upgrades and renovations that prolong the lifespan or increase the productive capacity of buildings are included.

Permanent installations, such as water supply, central heating, air conditioning, electricity, as well as expenditure on the construction of oil wells (drilling), operating mines, pipelines, power lines, pipelines, railway lines, port facilities, roads, bridges, viaducts, drainage and other land improvements are also included.

3. Technical installations. Technical installations are complex units for specialised use in the production process (buildings, machinery, equipment, parts or elements, including computer systems which, although separable by nature, are permanently linked to their operation).

4. Machinery and tools. Machinery or equipment used in the manufacture of products, as well as utensils or tools intended for the same purpose and which can be used autonomously or in conjunction with the machinery.

5. Transport and other items. This includes vehicles of all kinds intended for the transport by land, sea or air of persons, animals or goods, as well as other property, plant and equipment such as furniture, information processing equipment, office materials and equipment and other tangible property not listed above.

The following table shows the estimates made for this indicator and the annual growth rates between 2016 and 2021:

Table 4. Investment in property, plant and equipment by groups of economic activity (EUR 000). 2016-2021. Canary Islands

Economic activity (CNAE)	Investment in tangible assets (EUR 000)						Annual rate of change (%)				
	2016	2017	2018	2019	2020	2021	2017/ 2016	2018/ 2017	2019/ 2018	2020/ 2021	2021/ 2020
1 mining and quarrying (0709)	462	1.503	1.910	1.890	4.372	3.467	225.2 %	27.1 %	— 1.0 %	131.3 %	— 20.7 %
2 industries from food, beverages and tobacco (10-12)	65.136	114.680	107.634	134.921	80.955	90.536	76.1 %	— 6.1 %	25.4 %	— 40.0 %	11.8 %
3 textile, clothing, leather and footwear industries (13-15)	781	818	1.293	2.108	1.060	1.451	4.8 %	58.1 %	63.0 %	— 49.7 %	36.9 %
4 wood, paper and printing industry (1618)	11.068	11.613	10.311	15.313	12.052	16.762	4.9 %	— 11.2 %	48.5 %	— 21.3 %	39.1 %
5 chemical, pharmaceutical and non-metallic mineral products (2023)	13.114	21.954	25.867	34.584	20.599	28.554	67.4 %	17.8 %	33.7 %	— 40.4 %	38.6 %
6 metallurgy and manufacture of metal products, machinery, electrical equipment, vehicles and transport equipment (2430)	4.742	5.964	12.563	15.208	11.318	14.879	25.8 %	110.7 %	21.0 %	— 25.6 %	31.5 %
7 manufacture of furniture (31)	1.179	3.523	3.866	3.372	1.771	387	198.7 %	9.7 %	— 12.8 %	— 47.5 %	— 78.1 %
8 other manufacturing (32)	670	1.383	2.332	3.466	1.810	2.117	106.5 %	68.6 %	48.6 %	— 47.8 %	16.9 %
9 repair and installation of machinery and equipment (33)	49.748	27.344	14.508	9.979	16.277	14.614	— 45.0 %	— 46.9 %	— 31.2 %	63.1 %	— 10.2 %
10 electricity, gas, steam and air conditioning supply (35)	82.599	93.389	110.236	136.428	132.986	161.775	13.1 %	18.0 %	23.8 %	— 2.5 %	21.6 %
11 water supply, sewerage, waste management and decontamination (36-39)	28.970	50.086	54.737	61.213	54.079	34.878	72.9 %	9.3 %	11.8 %	— 11.7 %	— 35.5 %
12 sale and repair of motor vehicles and motorcycles (45)	90.683	113.986	72.508	66.080	42.657	66.633	25.7 %	— 36.4 %	— 8.9 %	— 35.4 %	56.2 %
13 wholesale trade and brokers, except of motor vehicles and motorcycles (46)	203.072	280.097	179.262	161.443	126.722	149.529	37.9 %	— 36.0 %	— 9.9 %	— 21.5 %	18.0 %
14 retail trade, except of motor vehicles and motorcycles (47)	321.409	331.795	353.716	300.201	301.527	258.191	3.2 %	6.6 %	— 15.1 %	0.4 %	— 14.4 %
15 transport and storage (49-53)	355.387	648.775	367.934	297.455	251.883	376.516	82.6 %	— 43.3 %	— 19.2 %	— 15.3 %	49.5 %
16 hotels and restaurants (55-56)	594.730	516.189	662.527	485.077	332.759	685.791	— 13.2 %	28.3 %	— 26.8 %	— 31.4 %	106.1 %
17 information and communications (58-63)	113.111	128.909	110.963	117.526	89.777	189.125	14.0 %	— 13.9 %	5.9 %	— 23.6 %	110.7 %
18 real estate and professional activities (68-75)	283.518	397.871	270.319	161.343	196.282	160.495	40.3 %	— 32.1 %	— 40.3 %	21.7 %	— 18.2 %

19 administrative and support services activities (77-82)	235.632	333.156	299.090	440.850	105.814	285.908	41.4 %	— 10.2 %	47.4 %	— 76.0 %	170.2 %
TOTAL	**2.456.009**	**3.083.037**	**2.661.576**	**2.448.460**	**1.784.699**	**2.541.606**	**25.5 %**	**— 13.7 %**	**— 8.0 %**	**— 27.1 %**	**42.4 %**

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

Table 5. Investment in property, plant and equipment by sector of economic activity (EUR 000). 2018-2021. Canary Islands and Spain

	Investment in tangible assets (EUR 000)				Annual rate of change (%)		
Activity (CNAE)/ territory	**2018**	**2019**	**2020**	**2021**	**2019/2018**	**2020/21**	**2021/2020**
INDUSTRY (07-39) CANARY ISLANDS	345.257	418.484	337.278	369.420	21.2 %	— 19.4 %	9.5 %
INDUSTRY (07-39) SPAIN	26.356.884	27.880.492	26.037.578	27.468.390	5.8 %	— 6.6 %	5.5 %
TRADE (45-47) CANARY ISLANDS	605.485	527.724	470.906	474.353	— 12.8 %	— 10.8 %	0.7 %
TRADE (45-47) SPAIN	11.560.943	11.053.380	10.625.403	13.136.853	— 4.4 %	— 3.9 %	23.6 %
SERVICES (49-63/68-82) CANARY ISLANDS	1.710.834	1.502.252	976.515	1.697.834	— 12.2 %	— 35.0 %	73.9 %
SERVICES (49-63/68-82) SPAIN	33.966.475	34.574.380	32.592.262	39.401.679	1.8 %	— 5.7 %	20.9 %
TOTAL CANARY ISLANDS	**2.661.576**	**2.448.460**	**1.784.699**	**2.541.606**	**— 8.0 %**	**— 27.1 %**	**42.4 %**
TOTAL SPAIN	**71.884.302**	**73.508.252**	**69.255.243**	**80.006.922**	**2.3 %**	**— 5.8 %**	**15.5 %**
% Canary Islands over Spain	**3.7 %**	**3.3 %**	**2.6 %**	**3.2 %**			

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

The above table compares the quantities of the Canary Islands in relation to the State as a whole. The period starts in 2018 instead of 2016 due to a methodological change made by the INE in relation to the definition of an undertaking.

For enterprises active in more than one Autonomous Community, the survey asks for three variables to be filled in for each territory. These variables are: number of premises, turnover and investment in property, plant and equipment. Previously, employment and wages were also asked, but these variables are obtained from sources from social security. Therefore, the information on the investment in tangible assets corresponds to that made by each undertaking in each jurisdiction.

2. INVESTMENT IN INTANGIBLE ASSETS

They relate to the company's expenditure for the acquisition of long-term items that are not material such as concessions, patents, licences, trademarks, designs, copyright. They include expenditure on activated research and development, administrative concessions, industrial property, goodwill, the right to transfer premises and investments in IT applications.

The following table shows the estimates made for this indicator and the annual growth rates between 2016 and 2021.

Table 6. Investment in intangible assets (intangible assets) by groups of economic activity (thousand euros). 2016-2021. Canary Islands

	Investment in intangible assets (EUR 000)						Annual rate of change (%)				
Economic activity (CNAE)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2017/ 2016**	**2018/ 2017**	**2019/ 2018**	**2020/ 2021**	**2021/ 2020**
1 mining and quarrying (0709)											
2 food, beverage and tobacco industries (10-12)	1.787	5.603	2.922	7.579	2.292	4.147	213.5 %	— 47.8 %	159.4 %	— 69.8 %	80.9 %
3 textile, clothing, leather and footwear industries (13-15)											
4 wood, paper and printing industry (16-18)	241	1.939	125	462	226	290	705.9 %	— 93.5 %	268.3 %	— 51.0 %	28.4 %
5 chemical, pharmaceutical and non-metallic mineral products (2023)	164	1.360	769	502	535	299	727.7 %	— 43.4 %	— 34.7 %	6.5 %	— 44.2 %
6 metallurgy and manufacture of metal products, machinery, electrical equipment, vehicles and transport equipment (24-30)											
7 manufacture of furniture (31)											
8 other manufacturing (32)											
9 repair and installation of machinery and equipment (33)	525	295	622	123	341	458	— 43.9 %	110.8 %	— 80.2 %	176.4 %	34.6 %
10 electricity, gas, steam and air conditioning supply (35)	6.975	11.642	16.889	32.845	9.110	11.625	66.9 %	45.1 %	94.5 %	— 72.3 %	27.6 %
11 water supply, sewerage, waste management and remediation activities (36-39)	14.388	9.519	10.591	9.986	4.602	8.232	— 33.8 %	11.3 %	— 5.7 %	— 53.9 %	78.9 %
12 sale and repair of motor vehicles and motorcycles (45)	3.419	1.303	1.071	3.082	599	994	— 61.9 %	— 17.8 %	187.8 %	— 80.5 %	65.8 %
13 wholesale trade and brokers, except of motor vehicles and motorcycles (46)	6.611	7.768	9.095	7.506	7.897	7.682	17.5 %	17.1 %	— 17.5 %	5.2 %	— 2.7 %
14 retail trade, except of motor vehicles and motorcycles (47)	12.394	33.931	21.059	11.249	10.892	19.367	173.8 %	— 37.9 %	— 46.6 %	— 3.2 %	77.8 %
15 transport and storage (49-53)	23.194	19.192	17.554	16.105	16.404	35.372	— 17.3 %	— 8.5 %	— 8.3 %	1.9 %	115.6 %
16 hotels and restaurants (55-	15.781	34.033	5.003	14.285	7.413	7.055	115.7 %	—	185.5 %	—	— 4.8 %
17 information and communications (58-63)	18.731	23.666	9.193	15.509	15.076	22.811	26.3 %	— 61.2 %	68.7 %	— 2.8 %	51.3 %
18 real estate and professional activities (68-75)	7.995	13.111	24.938	13.871	20.157	14.254	64.0 %	90.2 %	— 44.4 %	45.3 %	— 29.3 %
19 administrative and support services activities (77-82)	21.101	8.334	17.010	6.331	12.959	7.147	— 60.5 %	104.1 %	— 62.8 %	104.7 %	— 44.8 %
TOTAL	**133.357**	**171.851**	**137.491**	**140.327**	**108.943**	**140.003**	**28.9 %**	**— 20.0 %**	**2.1 %**	**— 22.4 %**	**28.5 %**

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of INE Companies

In Table 6, there are empty cells for some activity groupings as a result of insufficient sample to estimate this magnitude.

Table 7. Investment in intangible fixed assets by sector of economic activity (EUR 000). 2018-2021. Canary Islands and Spain

Activity (CNAE)/territory	Investment in intangible assets (EUR 000)				Annual rate of change (%)		
	2018	2019	2020	2021	2019/2018	2020/2021	2021/2020
INDUSTRY (07-39) CANARY ISLANDS	32.568	52.391	17.545	25.319	60.9 %	— 66.5 %	44.3 %
INDUSTRY (07-39) SPAIN	2.835.321	3.155.288	3.039.333	3.241.835	11.3 %	— 3.7 %	6.7 %
TRADE (45-47) CANARY ISLANDS	31.225	21.837	19.389	28.044	— 30.1 %	— 11.2 %	44.6 %
TRADE (45-47) SPAIN	6.306.800	7.304.780	7.561.219	9.784.090	15.8 %	3.5 %	29.4 %
SERVICES (49-63/6882) CANARY ISLANDS	73.698	66.100	72.010	86.640	— 10.3 %	8.9 %	20.3 %
SERVICES (49-63/68 — 82)	6.306.800	7.304.780	7.561.219	9.784.090	15.8 %	3.5 %	29.4 %
SPAIN	**137.491**	**140.327**	**108.943**	**140.003**	**2.1 %**	**— 22.4 %**	**28.5 %**
% Canary Islands on Spain	**15.448.921**	**17.764.848**	**18.161.771**	**22.810.015**	**15.0 %**	**2.2 %**	**25.6 %**
	0.9 %	**0.8 %**	**0.6 %**	**0.6 %**			

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

The above table compares the quantities of the Canary Islands in relation to the State as a whole, unlike investment in tangible assets, this indicator is shown in the survey for all the territories in which the company is active, in average terms, affecting 4 % of the companies in the sample. In this case, the investment in intangible assets is regionalised using the ratio resulting from the ratio between the investment in tangible assets made in the Canary Islands and the investment in total tangible assets of each undertaking.

ARTICLE III.4: EMPLOYMENT INDICATORS AND TURNOVER

The assignment to ATC covers the measurement of tangible and intangible assets of companies. However, as the level of disaggregation of certain information is not sufficient to have regionalised company data, information on employment and turnover provided by the Structural Enterprise Statistics is added.

For the purposes of the employment indicator, all persons who, being part of the enterprise, contribute through the contribution of their work, whether paid or unpaid, to the activities of the enterprise is considered to be staff employed. This includes working owners, partners working regularly in the unit and non-family members

paid workers who work regularly in the unit. It also includes persons who, although working outside the company, belong to and are remunerated by it (e.g. trade representatives, courier staff, repair and maintenance equipment working on behalf of the company). The staff employed include both permanent and non-permanent staff, whether full-time or part-time.

On the indicator of the number of jobs created, however, the information presented is the stock of employment at a fixed date. Estimating the number of jobs created is more complex, as it requires a demographic study of this variable enterprise to enterprise.

As regards turnover, it must be assumed that this amount includes the total of the amounts invoiced

by the observation unit during the reference period for sales of goods and services supplied to third parties, taking into account both those made directly by the observation unit itself and those from any subcontracting.

These sales of goods or services are accounted for on a net basis, i.e. including charges passed on to the customer (transport, packaging, etc.), even if they are invoiced separately, but deducting discounts on early paid sales, sales refunds or the value of returned packaging, as well as sales fees. Taxes and fees charged on goods or services invoiced by the unit are included, but VAT/IGIC charged to the customer is excluded.

From an administrative point of view, the General Accounting Plan (General Accounting Plan) (Royal Decree 1514/2007 of 16 November 2007) defines the total net turnover on the basis of the following accounting items: C700 + C701 + C702 + C703 + C704 + C705- C706-C709 where:

C700. Sales of goods

C701. Sales of finished products

C702. Sales of semi-finished products

C703. Sales of by-products and waste

C704. Sales of packaging

C705. Supply of services

C706. Discounts on early payment sales

C708. Refunds of sales and similar transactions

C709. ‘Rappels’ on sales

Turnover therefore does not include subsidies or other operating income, financial, extraordinary or other income affecting profit or loss.

Tables 8 and 9 show estimates for employment and tables 10 and 11 for turnover.

Table 8. Staff employed (persons) by groups of economic activity. 2016-2021. Canary Islands

	Investment in intangible assets (EUR 000)						Annual rate of change (%)				
Economic activity (CNAE)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2017/2016**	**2018/2017**	**2019/2018**	**2020/2021**	**2021/2020**
1 mining and quarrying (0709)	198	184	245	242	232	274	— 6.8 %	33.1 %	— 1.1 %	— 4.3 %	18.5 %
2 food, beverage and tobacco industries (10-12)	10.852	11.880	11.634	11.888	11.627	11.452	9.5 %	— 2.1 %	2.2 %	— 2.2 %	— 1.5 %
3 textile, clothing, leather and footwear industries (13-15)	574	635	707	772	750	818	10.7 %	11.2 %	9.2 %	— 2.9 %	9.1 %
4 wood, paper and printing industry (16-18)	2.343	2.830	2.812	3.141	2.830	2.854	20.8 %	— 0.6 %	11.7 %	— 9.9 %	0.8 %
5 chemical, pharmaceutical and non-metallic mineral products (2023)	2.452	2.485	2.767	2.699	2.598	2.779	1.3 %	11.3 %	— 2.4 %	— 3.8 %	7.0 %
6 metallurgy and manufacture of metal products, machinery, electrical equipment, vehicles and transport equipment (2430)	2.959	3.514	3.773	4.018	3.756	3.851	18.8 %	7.4 %	6.5 %	— 6.5 %	2.5 %
7 manufacture of furniture (31)	799	909	974	1.011	910	985	13.9 %	7.1 %	3.8 %	— 10.0 %	8.2 %
8 other manufacturing (32)	646	675	758	769	680	724	4.5 %	12.4 %	1.3 %	— 11.5 %	6.4 %
9 repair and installation of machinery and equipment (33)	2.881	3.372	3.403	3.742	3.717	3.833	17.1 %	0.9 %	10.0 %	— 0.7 %	3.1 %
10 electricity, gas, steam and air conditioning supply (35)	1.200	1.189	1.196	1.249	1.280	1.250	— 0.9 %	0.6 %	4.4 %	2.5 %	— 2.3 %
11 water supply, sewerage, waste management and remediation activities (36-39)	8.258	8.286	9.210	9.959	9.550	10.020	0.3 %	11.1 %	8.1 %	— 4.1 %	4.9 %
12 sale and repair of motor vehicles and motorcycles (45)	13.731	14.830	15.601	15.756	15.197	14.312	8.0 %	5.2 %	1.0 %	— 3.5 %	— 5.8 %
13 wholesale trade and brokers, except of motor vehicles and motorcycles (46)	38.125	40.029	39.051	40.983	37.887	38.194	5.0 %	— 2.4 %	4.9 %	— 7.6 %	0.8 %
14 retail trade, except of motor vehicles and motorcycles (47)	97.948	99.481	101.217	102.937	96.756	90.857	1.6 %	1.7 %	1.7 %	— 6.0 %	— 6.1 %
15 transport and storage (49-53)	44.814	45.990	47.795	48.708	43.998	44.034	2.6 %	3.9 %	1.9 %	— 9.7 %	0.1 %
16 hotels and restaurants (55-	124.143	137.042	137.034	143.120	124.839	118.321	10.4 %	0.0 %	4.4 %	—	— 5.2 %
17 information and communications (58-63)	7.435	8.799	9.705	10.529	10.711	10.980	18.3 %	10.3 %	8.5 %	1.7 %	2.5 %
18 real estate and professional activities (68-75)	43.361	45.561	49.449	53.582	50.955	44.360	5.1 %	8.5 %	8.4 %	— 4.9 %	— 12.9 %
19 activities administrative and support services (77-82)	60.020	59.619	64.127	64.681	60.291	9.000	— 0.7 %	7.6 %	0.9 %	— 6.8 %	— 2.1 %
TOTAL	**462.738**	**487.311**	**501.458**	**519.787**	**478.564**	**458.897**	**5.3 %**	**2.9 %**	**3.7 %**	**— 7.9 %**	**— 4.1 %**

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

Table 9. Staff employed (persons) by sector of economic activity. 2018-2021. Canary Islands and Spain

	Employed (persons)				Annual rate of change (%)		
Activity (CNAE)/territory	**2018**	**2019**	**2020**	**2021**	**2019/2018**	**2020/2021**	**2021/2020**
INDUSTRY (07-39) CANARY ISLANDS	37.478	39.491	37.929	38.840	5.4 %	— 4.0 %	2.4 %
INDUSTRY (07-39) SPAIN	2.253.476	2.311.811	2.292.568	2.361.067	2.6 %	— 0.8 %	3.0 %
TRADE (45-47) CANARY ISLANDS	155.869	159.676	149.841	143.363	2.4 %	— 6.2 %	— 4.3 %
TRADE (45-47) SPAIN	3.153.498	3.221.353	3.116.479	3.080.641	2.2 %	— 3.3 %	— 1.1 %
SERVICES (49-63/68-82) CANARY ISLANDS	308.110	320.620	290.794	276.695	4.1 %	— 9.3 %	— 4.8 %
SERVICES (49-63/68-82)	6.534.642	6.815.714	6.482.953	7.788.111	4.3 %	— 4.9 %	20.1 %
TOTAL CANARY ISLANDS	**501.458**	**519.787**	**478.564**	**458.897**	**3.7 %**	**— 7.9 %**	**— 4.1 %**
TOTAL SPAIN	**11.941.616**	**12.348.878**	**11.892.000**	**13.229.819**	**3.4 %**	**— 3.7 %**	**11.2 %**
% Canary Islands over Spain	**4.2 %**	**4.2 %**	**4.0 %**	**3.5 %**			

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

Table 10. Turnover (EUR million) by sectors of economic activity. 2018-2021. Canary Islands and Spain

	Turnover (		EUR million)		Annual rate of change (%)		
Activity (CNAE)/ territory	**2018**	**2019**	**2020**	**2021**	**2019/2018**	**2020/2021**	**2021/2020**
INDUSTRY (07-39) CANARY ISLANDS	7.154	7.429	6.442	7.631	3.8 %	— 13.3 %	18.5 %
INDUSTRY (07-39) SPAIN	670.864	681.318	604.088	734.026	1.6 %	— 11.3 %	21.5 %
TRADE (45-47) CANARY ISLANDS	28.718	29.567	24.554	28.635	3.0 %	— 17.0 %	16.6 %
TRADE (45-47) SPAIN	751.330	782.064	726.551	840.794	4.1 %	— 7.1 %	15.7 %
SERVICES (49-63/68-82) CANARY ISLANDS	22.245	23.594	14.609	17.124	6.1 %	— 38.1 %	17.2 %
SERVICES (49-63/68-82) SPAIN	530.655	566.119	453.616	581.374	6.7 %	— 19.9 %	28.2 %
TOTAL CANARY ISLANDS	**58.118**	**60.590**	**45.604**	**53.390**	**4.3 %**	**— 24.7 %**	**17.1 %**
TOTAL SPAIN	**1.952.848**	**2.029.500**	**1.784.255**	**2.156.194**	**3.9 %**	**— 12.1 %**	**20.8 %**
% Canary Islands over	**3.0 %**	**3.0 %**	**2.6 %**	**2.5 %**			

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

Table 11. Turnover (EUR million) by groupings of economic activity. 2016-2021. Canary Islands

	Turnover (EUR million)						Annual rate of change (%)				
Economic activity (CNAE)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2017/ 2016**	**2018/ 2017**	**2019/ 2018**	**2020/ 2021**	**2021/ 2020**
1 mining and quarrying (07-09)	20	16	29	25	23	33	— 20.2 %	80.1 %	— 14.6 %	— 5.6 %	40.7 %
2 food, beverage and tobacco industries (10-12)	1.631	1.728	1.675	1.761	1.499	1.603	6.0 %	— 3.1 %	5.2 %	— 14.9 %	6.9 %
3 textile, clothing, leather and footwear industries (13-15)	19	31	32	34	31	41	61.2 %	4.7 %	7.2 %	— 9.3 %	32.3 %
4 wood, paper and printing industry (16-18)	271	297	308	322	256	288	9.3 %	4.0 %	4.3 %	— 20.4 %	12.3 %
5 chemical, pharmaceutical and non-metallic mineral products (2023)	418	431	492	476	416	461	3.1 %	14.1 %	— 3.1 %	— 12.6 %	10.7 %
6 metallurgy and manufacture of metal products, machinery, electrical equipment, vehicles and transport equipment (24-30)	190	215	275	310	248	313	13.5 %	27.5 %	12.9 %	— 19.8 %	25.9 %
7 manufacture of furniture (31)	37	42	50	52	38	83	14.6 %	18.3 %	4.1 %	— 27.8 %	121.2 %
8 other manufacturing (32)	23	26	38	36	31	37	14.4 %	44.3 %	— 5.4 %	— 13.5 %	19.7 %
9 repair and installation of machinery and equipment (33)	297	367	353	427	361	483	23.5 %	— 3.8 %	20.8 %	— 15.5 %	34.0 %
10 electricity, gas, steam and air conditioning supply (35)	1.954	2.716	2.973	3.034	2.538	3.222	39.0 %	9.5 %	2.0 %	— 16.3 %	27.0 %
11 water supply, sewerage, waste management and remediation activities (36-39)	830	857	931	953	1.001	1.068	3.3 %	8.6 %	2.4 %	5.0 %	6.7 %
12 sale and repair of motor vehicles and motorcycles (45)	2.535	2.656	2.999	3.284	2.541	2.785	4.8 %	12.9 %	9.5 %	— 22.6 %	9.6 %
13 wholesale and intermediaries in the trade, except for motor vehicles and motorcycles (46)	10.612	11.791	12.188	12.575	10.080	12.661	11.1 %	3.4 %	3.2 %	— 19.8 %	25.6 %
14 retail trade, except of motor vehicles and motorcycles (47)	12.239	13.224	13.530	13.707	11.932	13.189	8.0 %	2.3 %	1.3 %	— 13.0 %	10.5 %
15 transport and storage (49) 53)	3.517	3.933	4.154	4.428	3.138	3.840	11.8 %	5.6 %	6.6 %	— 29.1 %	22.4 %
16 hotels and restaurants (55-56)	7.245	8.508	8.613	8.605	3.905	5.346	17.4 %	1.2 %	— 0.1 %	— 54.6 %	36.9 %
17 information and communications (58) 63)	1.450	1.729	1.813	1.766	1.726	1.769	19.2 %	4.9 %	— 2.6 %	— 2.3 %	2.5 %
18 real estate and professional activities (68-75)	2.669	2.743	3.189	3.442	2.835	2.772	2.8 %	16.3 %	7.9 %	— 17.6 %	— 2.2 %
19 administrative and support services activities (77-82)	4.414	4.282	4.476	5.353	3.006	3.397	— 3.0 %	4.5 %	19.6 %	— 43.8 %	13.0 %
TOTAL	**50.372**	**55.592**	**58.118**	**60.590**	**45.604**	**53.390**	**10.4 %**	**4.5 %**	**4.3 %**	**— 24.7 %**	**17.1 %**

Preparation: Canary Islands Institute of Statistics (ISTAC), Date: 26/10/23, source: Structural statistics of enterprises INE

IV. FIRST CONCLUSIONS

As a summary of the work carried out by the investigators of the Institute for Tax Studies and the Canary Islands Institute of Statistics and the Internal Audit Unit of the Canary Islands Tax Agency, the following figures should be highlighted:

a) Evolution of result indicators with respect to CID and ICR

The average size of Canary Islands enterprises, measured by the average number of employees, has increased over the period 2015-2019.

The average size of companies using the ICR is larger than those that do not use this tax benefit. Average employment is growing after the use of the tax advantage.

The CNAE 2009 groups to which the most intensive ICR and CID belong are those of Energy, Gas, Vapor and Water Supply, Buildings Activities, Other Services – Asfunociative Activities, Hotels, and Financial and Insurance Activities. The INE- AEAT *matching* has been used to construct these indicators because the tax information analysed does not contain the variable collected by the company's CNAE group, i.e. these indicators are calculated with a small number of companies, which may affect the robustness of the results if they are to be extrapolated to the entire population of companies resident in the Canary Islands.

The database of the Central Directory of Enterprises (DIRCE) of the INE is used to analyse the evolution of the production structure in the Canary Islands in the period 2015-2019. The CNAE 2009 groups with the highest number of companies are the wholesale and retail trade sector, professional, scientific and technical activities, hospitality and construction.

Companies that spend most on R & D & I belong to the Financial and Insurance Activities Groups and Transport and Storage Groups. The largest spending on innovation belongs to the Financial and Insurance Activities, Transport and Storage, Hospitality, Information and Communications, Health and Social Services Groups. However, these indicators are constructed with companies with more than 200 employees contained in the *INE-AEAT matching*, so the robustness of the results may be affected.

b) Deduction for investments in the Canary Islands

During the period 2015-2019 there was an annual increase of 8 % in the number of companies using this tax benefit. However, only between 10 % and 12 % of Canary Islands companies used this deduction each year. In the period under review, the average amount of the deduction amounted to EUR 41,480 per undertaking per year. The vast majority of companies have reduced amounts of CIDs, 75 % of companies have values of less than EUR 7,000. Companies resident in the Canary Islands have a lower average amount of deduction than companies in the rest of the regions.

There is a positive relationship between the size of the business and the likelihood of benefiting from this deduction. Companies with a turnover of more than EUR 1,5 million have a probability of using the tax benefit of around 35 %.

The proportion of companies using the CID as operating aid is higher than those using it as an incentive for investment aid. The amount earmarked for operating aid is also higher than that for investment aid and firms do not usually qualify the CID for the two items, if it is recognised as investment aid, and vice versa.

The results of the estimates show that it is only when it is assumed that there is no unobserved heterogeneity in enterprises, estimating a data *pool*, that the use of the deduction has a significant impact on the increase in the enterprise's total fixed assets in subsequent years when using the deduction. However, when assessing the cumulative effect of using the deduction in the period analysed, there are no statistically significant impacts. Regarding the effect of the CID on business R & D & I spending, some models indicate that the use of the CID has a positive and statistically significant impact on companies' R & D & I spending in the following years. However, when no additional returns are considered in the equation, only the estimated model for the data *pool* detects positive and statistically significant impacts. Furthermore, the model estimates assessing the cumulative impact of the tax benefit also do not present statistically significant parameters.

In short, the results of the evaluation of the CID are inconclusive, so it would be advisable to incorporate approaches such *as dif-in-diff* staggered to produce more robust estimates, which has not been considered in this approximation of panel data. The evaluation team is considering amending this methodological approximation with a view to the report to be submitted in 2024.

c) Reserve for investments in the Canary Islands

Over the period under review, there was an increase of 35.25 % per annum in the companies which allocate funds to the ICR. However, this tax benefit is only used by between 8.9 % and 10.9 % of the companies analysed. The vast majority of companies provide small CRM endowments. The average amount of the deduction over the period is EUR 161,678, but the median is much lower, is EUR 35,000.

There is a positive relationship between the size of the company and the probability of making allocations to the ICR, mainly for low turnover values, the probability increases until companies reach the turnover of EUR 100,000, and from this threshold the probability of funding to the ICR stabilises. Only 35 % of the companies with higher turnovers use this tax benefit. It is logical that companies with the highest turnover make greater contributions to the ICR.

The proportion of undertakings that materialise the amounts allocated to the ICR in making investments classified as operating aid is higher than the proportion of undertakings qualifying the investments as investment aid. The amount of investments classified as operating aid is also higher than in the 75

classified as investment aid. The average amount of investment qualified as operating aid doubled in the analysis period. However, the average amount of investments qualified as investment aid shows much more moderate growth.

Companies benefiting from this tax incentive have higher values in the variables collecting equity and reserves, they also have a higher number of employees, as well as higher spending on R & D & I. However, companies which made allocations to the ICR in 2019 presented lower fixed asset items than companies that did not benefit from this tax benefit. Therefore, it does not seem to materialise the tax savings in undertaking investment projects involving large increases in fixed assets.

The results of the assessment show a positive and statistically significant impact of the tax benefit on the increase in the company's employment, on the total fixed assets, on its reserve levels and on the equity item. However, the impact of making allocations to the ICR does not present statistically significant effects on business R & D & I spending.

d) Evolution of result indicators with respect to investment incentives regulated in Article 25 of Law 19/1994.

During the period analysed, it can be seen that the incentive at issue, and since the amendment introduced by Royal Decree Law 12/2006 of 29 December 2015, has lost its intensity in its application, both as regards the IGIC and ITPyAJD.

The requirement that the investment must always be made, in the context of an initial investment, the restriction on its application to certain sectors of activity, as well as the exclusion of certain types of assets and the imposition of certain requirements has had an impact on its use by Canary Islands undertakings.

As regards the scope of the IGIC, the results show that undertakings which use this exemption as investment aid are reduced to undertakings belonging to sectors which, on a general or occasional basis, carry out transactions that are exempt from this tax and do not give rise to a total right to deduct input tax, resulting in the deduction rate of less than 100 %.

The amount of investments eligible for the exemption, in which the tax incentive materialises over the period from 2016 to 2021, amounts to EUR 194,61 million, the total amount of the benefit being quantified at EUR 13,33 million.

Over the period 2018-2021, there was an average annual decline of 13.43 % in terms of the exempt amount, which is the profit, and the average annual amount of the exemptions applied amounted to EUR 18 327,99.

In so far as ITPyAJD, in its form of corporate transactions, the tax incentive is not used by Canary Islands companies on the basis of the exemption at State level, from the tax on all transactions aimed at the creation, capitalisation and maintenance of companies, established by Royal Decree-Law 13/2010 of 3 December 2007, the entry into force of which was that day and year.

As regards the exemption from ITPyAJD, in the form of transfers of assets for pecuniary interest, the results show a total of 446 declarations eligible for exemption, those which cannot be identified with the number of beneficiaries, since it is possible for the same beneficiary to benefit from the aid in different years. The amount of aid in which the exemption materialises is EUR 7,04 million.

In the period 2016-2021, there was an average annual growth of 13.23 % in terms of the exempt amount, which is the profit, and the average annual amount of the exemptions applied amounted to EUR 15 396,15.

The result of the assessment of the investment aid provided for in Article 25 of Law 19/1994 of 6 July 2015, in line with those of the other investment incentives, as a whole, shows a lower incidence and use by the undertakings analysed in comparison with other types of aid such as those classified as operating aid.

These data support the favourable effect of the aid scheme in question. The following reports will be able to deepen with more time and data available to researchers, which will allow the analysis period to widen, capturing the impact of the COVID-19 pandemic and the economic impact of the Russian military aggression against Ukraine.

V. ANNEXES

V.1. LETTER FROM THE PERMANENT REPRESENTATION OF SPAIN TO THE EUROPEAN UNION NOTIFYING THE MODIFICATION OF THE EVALUATION PLAN

El Embajador
Representante Permanente Adjunto de España
ante la Unión Europea

R.R. Perm, SPAIN EU, **BRUSSELS**

LEAVING

Date 1 6 DEC. 2022

Olivier Guersent DG COMPETENCIA
European Commission
Brussels

Brussels, 16 December 2022

SUN TO: Amendment to the Evaluation Plan "REF Investment" (SA.103777)

Director-General, *

Please find enclosed the reply of the Ministry of Finance and the Civil Service to the Commission'scomments on the evaluation plan for the aid scheme "REF Investment" (SA). (103777) in line with the extension of the scheme until 2023 (SA. 101888).

- The Word document: 20221202REF evaluation plan: includes Part III.8 where the new paragraphs have been highlighted in yellow.
- The Word document: 2022120 I SA. 101888 JRC: it contains the Commission document with the answers highlighted in yellow.

If, following these explanations and the extension of content, the Commission considers it appropriate to hold a meeting to clarify some points, we would be willing to organise, so we would be grateful to know your availability of dates and times.

Yours faithfully,

/

Raúl Fuentes Milani

Representación Permanente de
España ante la UE
52, Bd. du Régent
1000 Bruxelles
Tf: 00-32(2)5098767
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V.2. REPLY TO THE QUESTIONS RAISED BY THE EUROPEAN COMMISSION

The answers to the questions raised are highlighted in the text with a yellow background.

EVALUATION PLAN TOSSESSMENT FICHE

STATE TOID SA.101888 – SPAIN

"HAC – CANARY ISLANDS ANDCONOMIC TAX REGIME (REF). INVESTMENT AID'

Comments on the evaluation plan

In this synthetic Feedback Fiche, we provide a list of comments on the evaluation plan entitled 'HAC – Canary Islands Economic Tax Regime (REF). Investment aid'. In particular, the report assessing the quality, the feasibility, and the completion of the proposed evaluation design. In the first part, we understand the key aspects of the intervention and we discuss all the relevant issues in a more general way. Then, we focus on each section of the evaluation plan, emphasing the specific concerns.

Key aspects of the intervention

1. *Title of the aid scheme*: Hac – Canary Islands Economic Tax Regime ('the Canary Islands Economic Tax Regime' or 'REF')
2. *Timeline:* 2015-2023
3. *Objectives:* Economic growth in the Canary Islands; The creation of jobs; The increase in private investment; Capitalisation of Canary Islands companies
4. *Previous programmes:* similar tax incentive schemes run before 2015 (dating back as far as to the 15th century, fully applicable)
5. *Eligibility:* signed or with permanent establishment in the Canary Islands, or in the archipelago; entrepreneurs or professionals who are taxpayers for corporate tax or personal income tax residing in the Canary Islands
6. *Area of application:* Fiscal policy
7. *Stakeholder:* beneficiaries; population of the Canary Islands as a whole
8. *Aid intensity:* (H.1) Tax relief: 350.500.000 (total), 175.250.000 (annual); (H.2) Reduction of the taxable amount: 226.000.000 (total), 113.000.000 (annual); (H.3) Other: 8.500.000 (total), 4.250.000 (annual)
9. *Selection criteria:* same *Eligibility*
10. *Risks:* The evaluation plan concerns that 'In the event of supported growth in the Canary Islands economy leading to the generation of business profits, increasing the allocations to the ICN, the estimated budget of the REF will need to be updated to take account of the implementation of the investment aid from the REF for a large number of companies and for larger amounts, as the budget notified is based on data obtained in an adverse economic context.'
11. *Management:* Spanish Ministry of Finance and the Civil Service

Summary of the intervention (objectives) and general issues

The aid scheme is structured in severe measures, all qualification as investment aids: (a) incentives for investment, (b) reserve for investments in the Canary Islands ('RIC'); (c) Income Tax Deductions ('CID').

- *Incentives for investment*. These are exemptions from the tax on capital transfers and documented legal acts for companies established in the Canary Islands to improve their productive capacity. It is not applicable to employees or professionals who are natural persons. The tax incentives also take the form of exemptions from the Canary Islands General Indirect Tax (IGIC). The IGIC is an indirect State tax fuelled on the supply of goods and services by traders and professionals and on imports of goods into the Canary Islands. ITS rules and methods of application are very similar to VAT, with some specifications to adapt to the specific features of the Canary Islands and which respect the mastering of the exemption for consumption explicitly regulated in the Statute of Autonomy of the Canary Islands. The IGIC rules offer different additional advances compared to the VAT system, such as lower tax rates; the application of a zero rate to certain essential goods and services and the discharge of supplies of goods in the course of a retail trade. The incentives refer to the exemption in the IGIC for companies that do not have the right to fully deduct this tax from the input tax paid on the acquisition or import of capital goods or fixed assets located and used in the Canary Islands, as part of an initial investment, provided that it is made by a company established in the Canary Islands, or at least with a permanent establishment in the Archipelago. The capital goods must be new, but not the person acquiring or importing the goods is of a small size which may be used. This is a full exemption for transfers of capital goods and intangible assets.

- *Reserve for investments in the Canary Islands ('RIC')*. Tax advance for entrepreneurs or professionals who are taxpayers for corporate tax or personal income tax, which is intended to encourage productive business investment and the creation of public infrastructure in the Canary Islands. The aim of the CRP is to boost the investment coming from own resources, i.e. the self-financing of the investments of companies operating in the Canary Islands, thereby helping to overcome a problem that was Endemic in the Canary Islands. The CRP, in its natural or general configuration, replies to the free movement of profits in an unavailable reserve, which will then Materialise in future productive investments.

- *Income Tax Deductions ('CID')*. The deduction for investments in the Canary Islands is a tax incentive, equivalent to that in operation in the national territory, but with a higher intensity of the tax benefit received. All companies and other legal entities subject to corporate tax may benefit from this incentive for investments they make and stay in the Canary Islands provided that they are controlled or have a permanent establishment on the islands. Natural persons carrying out business and professional activities in the archipelago can also benefit. The rates applicable to investments made must be 80 to 100 higher than under the common scheme, with a minimum spread of 20 percentage points. The limits for the deduction are 80 per 100 higher than under the common scheme with a minimum difference of 35 points. Where the Community rules on State aid so permit and the investments are made in La Palma, La Gomera or El Hierro, as referred to in Law 2/2016 of 27 September, the minimum allocation of 80 per 100 shall be 100 per 100, with a minimum differential of 45 points. As with the RIC, depending on the nature of the investment to which this incentive is applied, it will be classified as investment aid or as operating aid.

The main concern is whether one would be possible to capture/measure the effect of this policy intervention on the outcome of interest. As explained more in details below, the evaluation questions in Table 3.1 are interested but can be more clearly defined; the evaluation methods are only affected but not disputed in details (in particular, whether they are actually feasible or not in Capturing the effect of interest); the list of data is comprehensive but it is not clear what these data are actually going to be available for the evaluation exercise.

Detailed issues

Evaluation Questions

The evaluation plan lists examined evaluation questions in the main text and six *examination* questions in Table 3.1 in Annex 6.

Questions (1a) – (1.e) and Questions (2a) – (2c) in the main text are measured to assess the direct and indirect impact of the policy; accordingly. These questions are quite generic and not very informative. Six more evaluation questions are reported in Table 3.1 in Annex 6 as *examples.*

We have added specific sub-questions that are informative on the aim of the evaluation program.

Compared to Q. (1a) – (2.c), the six questions in Table 3.1 are more focused on the policy objectives, stressing whether the REF has created more jobs, circulated the productive structure of the Canary Islands, further developed capitalisations, boosted technological innovation. These questions are all very interested and it would be nice to see those questions all very interesting.

Additionally, there are issues to be not explicit references on whether the different channels of the policy intervention will be equally answered separately. As mentioned above, the REF is structured into severe measures (i.e., incentives, RIC and CID), and one Wonders where it would be possible to capture the effect through these different channels separately.

We have confirmed that the impact of each of the measures included in the REF will be separately addressed. To run the analysis we will not be used aggregated data but data with microdata at the firm level. For each of the companies, the supplier of relevant information (for instance, the Tax Agency) information if that company benefited from a certain REF tax incentive. We will know at the micro level the different tax incentives that companies have used, thefore we can isolate the effect of each measure separately.

Finally, there is no dispute on proportionality and appropriateness of the aid scheme. In particular, proportionality references to what the same effects could have been obtained with less aid or a different form of aid. Alignment of references to what the common methodology for State aid evaluation is themost EFFEc tive aid instrument (as specified in the EC SWD on the common methodology for State aid evaluation)14.

To assess the proportionality and appropriateness of the REF a new proposal has been added. We have proposed a "rapid impact evaluation", also qualified impact assessment. This evaluation consisting of proposing two options of a public intervention. The first alternative is the REF and the second alternative will be an alternative intervention, such as a modification of the REF.

14 Available at
https://ec.europa.eu/competition/state_aid/modernisation/state_aid_evaluation_methodology_en.pdf

Result Indicators

For each of the six examination evaluation questions reported in Table 3.1 in Annex 6, an indicator is reported. For each indicator, the plan reports the source, frequency, level and population. Some of the indicators are collected only for the aid beneficiaries (e.g. "number of jobs created in beneficiaries enterprises"), but one has to be mindful that it is important to collect observations for non-beneficiaries as well, whether this is possible.

As we have explained the vast majority of the information to be used in the evaluations is available at the firm level. We will be driving two types of analysis:

1. *Contribution analysis: we will answer the trend of results indicators for each company however, as the evolution of the outcome variables measured by other factors, we cannot isolate the effect of the REF measures.*
2. *Attribution analysis: the data supplying agencies will not only give us information on the companies that benefits from the tax incentive but also provide the same variables for the companies that have not been beneficiaries (control group). The specific variables that would be supplied are employment, investment, sector of activity, type of company, size, etc. Under this approach we will form control groups with similar characteristics to the treatment group. This analysis withs to isolate the effects of each REF measures.*

Methods

The evaluation plan does not indicate a methodology to be used and does not discuss its suitability for the scheme in question. The evaluation plan proposed to use Marginal Structural Models (MSM) to assess the impact of the aid. This methodology – which is only marginally described -seems to be an estimation method rather than an identification method. On the other hand, other methods have been proposed such as Instrumental variable estimate, propensity score matching (PSM), and Leonty's input-output matrix but, again, there are no details on the validity of the chosen instruments, or whether the data will be low to use PSM effectively, or what are the pros and cons of using the input-output framework, see Section 5 of the evaluation plan. Additional details may be provided to address how the control group should be identified and based on what characteristics.

The methods section has been expanded in the evaluation plan and the characteristics, advances and risks of each evaluation have been specified.

In relation to the MSM comment, we understand that impact evaluation methodologies are usually divided between experimental designations (when the assignment of individuals to treatment and control are not randomised and perceived selection biases might be in place). Our evaluation plan rests in quasi-experimental designs, where a fundamental component is to determine if the bias is generated by the policy, by the individuals or whether it is in the observed or unobserved variables. With the databases available we will correct the bias using the most common approaches are diff-in-diff, matching, propensity score matching (PSM), instrumental variables or return in continuity. However, all these quasi- experimental methodologies have an simplified assumption that is not approved. All these methodologies are valid when the individual returns a treatment only 11 and the outcome variable is observed after the treatment. In our specific case, a company can use the tax benefit this year, next year, the year after, and so on and so for. In other words, we observe is a cumulative impact. The fact that the individual severe reallocation, or a dynamic treatment, you have severe import 84

implications for the evaluation method. First, it is not possible to use the previouled methods, which are based on assignments at a single point in time. In addition, there is a new problem in the other individuals' characteristics used to 'clean' the Endogeneity of using the tax benefit. Profiting from the tax incentive this year have some effect on the explanatory variables (X) in the future. And the value of the explanatory variable Xi the following year might influence over the individual decision to use the tax incentive. Thefore, the x's fellow confounding factors by incorporating different time periods. We understand MsMs to be within matching methodologies, but they are present a higher version of classical matching and PSM models for the following resettlements: (1) they are analysing the cumulative effect of treatment over time, and (2) they work with biases in observed variables that evolve over time.

In section 5 we have provided additional details to address how the control group should be identified and based on what characteristics for all the proposed evaluations. We have clarified the validity of the chosen instruments, and whether the data will be low to use PSM effectively.

Additionally, we have also made explicit *the pros and cons of the input output framework which Basily depended on the results of the direct evaluation methods.*

Data Collection

A number of data sources are listed: the Canary Island Tax Administration for admin data; the PITEC panel, data from the Canary Island Institute of Statistics; various surveys. This is good but it is not clear whether the data stated are actually going to be available for the evaluation exercise. This is paramount and needs to be clarified as possible. It would be helpful to have more details to the variables listed in Section 6 of the evaluation, which is, the precise definition as specified by the statistical authorities/data-provider, including any significant problem regarding data (missing values, different level of aggregation, etc.).

In the new version of the document, we have proposed a method for matching administrative files that would help to carry out the evaluations, and encourage confidence in information problems. We have confirmed that PITEC is not available but that data from an Innovation Survey will be available for the evaluation exercise. A list of the variables that will be used for the evaluation have been included and we have confirmed that these data are available for the evaluation exercise.

V.3. EVALUATION PLAN NOTIFIED TO THE EUROPEAN COMMISSION IN DECEMBER 2022

The changes made to the evaluation plan notified in July 2022 are highlighted in the text with a yellow background.

Part III.8 Supplementary Information Sheet for the notification of an evaluation plan

Member States shall use this form for the notification of assessment plans under Article 1(2)(a) of Regulation (EU) No 651/201 4 and in the case ofa*15*notified aid scheme subject to an assessment in accordance with the relevant Commission Guidelines.

For guidanceonthe preparation of an evaluation plan, see the Commission services 'Common methodology16 for State aid assessment'.

Commission15 Regulation No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the common market in application of Articles 107 and 108 of the Treaty (OJ L 1,87, p. 1).
16 SWD (2014) 179 final of 28.5.2014.

1. Identification of the aid scheme to be evaluated

1. Title of aid scheme:

*Economic**and Fiscal Regime of the Canary Islands (hereinafter REF)** (Article 94 of Law 20/1991 of 7 June amending the tax aspects of the Canary Islands' Economic Tax System and Articles 25 and 27 of Law 19/1994 of 6 July amending the Canary Islands' Economic and Tax Regime).*

2. Does the evaluation plan concern:

a) [X] to a scheme subject to the assessment referred to in Article 1(2)(a) of Regulation (EU) No 651/2014?

b) Q to a scheme notified to the Commission pursuant to Article 108(3) TFEU?

3. Reference of the scheme (to be completed by the Commission):

4. Mention, where appropriate, *ex ante and/* or impact assessments for the aid scheme, and ex post evaluations or studies carried out in the past on predecessors of the aid scheme or similar schemes. Describe briefly the findings and conclusions, highlighting the specific challenges that may have arisen in the evaluations and studies from a methodological point of view (e.g. data availability) and which are relevant for the assessment of the current evaluation plan. If appropriate, please identify relevant areas or topics not covered by previous evaluation plans that should be subject of the current evaluation. Please attach summaries of such assessments and studies in the annex, or provide internet links to the documents in question.

List of previous work

In terms of evaluation, there are numerous academic articles that have focused their analysis on the effects of the REF on the Canary Islands economy, as well as on the differentiated effects of the instruments that make up this special tax regime.

The various evaluations of the REF carried out so far can be classified according to the following subjects (for further details on the literature analysed see ANNEX 1):

Ultra-peripheral costs and financing model

*The study carried out by the **Centre for Economic Studies Tomillo (2002)** was carried out with the aim of identifying and quantifying these costs through an analysis of the macroeconomic structure of the Canary Islands economy and the opinion of a sample of Canary Islands entrepreneurs. The results of this work showed a particular intensity on the islands of transport costs, human resources, business travel and certain business (marketing) services compared to the mainland. The results of this work also highlighted the increased impact of the periphery on regulatory stocks and on the financing costs of Canary Islands companies as well as on industry and micro-enterprises. According to the authors, the insularity factor would generate certain additional costs (multiplication of infrastructure and staff) as well as an increase in the cost of businesses located on non-capital islands. On the other hand, the existence of "infinite" costs (stemming from the existence and continued existence of barriers to entry and exit for companies in the markets) would mean a permanent reduction in the potential growth capacity of the Canary Islands economy.*

*A new study by the **Tomillo Centre for Economic Studies (2010) updated** the previous study, concluding that in 2008 the extra cost of the ultra-periphery borne by the Canary Islands private (non-agricultural) business sector exceeded EUR 5.988 billion, representing 13.8 % of its GDP, 16.6 % of its GVA and 7.6 % of its turnover. According to this study, there is an increase in the quantifiable overcharge of the outermost regions between 1999 and 2008, from 12.1 % of Canary Islands GDP in 1999 to 13.8 % in 2008.*

*The work carried out by **Fernández and Peñas (2011)** focuses on studying the specific features of the Canary Islands' funding system, justified on the status of an outermost region of the European Union. Through an examination of these costs and the general framework of public finances in the Canary Islands, in relation to the macroeconomic dynamics of the Canary Islands, the authors conclude that the status of outermost regions would increase the actual cost of providing public services and would increase some expenditure chapters for the companies located in the archipelago. The geographical characteristics of the Canary Islands would also complicate its socio-economic development. The results achieved highlight the difficulty in precisely quantifying the need for levelling and inter-territorial compensation that should take place in respect of this region and point out that the correlation between the tax cost of the benefits enjoyed by the Canary Islands and their effectiveness in terms of development has not yet been proven, given the lack of availability of data needed to carry out the analysis.*

***Blasco (2014)** addressed the problems that customs and IGIC cause to the Canary Islands' trade balance. The author defends the existence of this tax, since it results in tax equalisation between the two territories, peninsula and archipelago. However, that tax makes it necessary, in the case of 'external trade', for a customs document for this type of transaction, which removes the tax differential and increases the tax burden of those transactions, thereby losing the objective of the tax.*

It proposes three possible solutions: the use of Community VAT, but acknowledging the unique nature of the Canary Islands as ORs, relaxing customs requirements; adopt a foral regime similar to the Basque and Navarre, where customs would be eliminated, but a favourable tax regime would be maintained; Intra-Community IGIC.

***UTE Eco-CoRe (2019) carried out** a new update of the 2002 and 2010 additional cost studies, compiling data on the additional costs in the private sector in the Canary Islands resulting from the outermost regions and double insularity. In the report, the additional costs due to: freight transport, differential stocks, business trips, idle productive capacity, water, energy, multiple and financial facilities. This report finds that these additional costs in 2016 account for EUR 5.228 million, or 8 % of business turnover in the Canary Islands. Freight transport is a key component of this cost component (54.7 % of the total), followed by (quantitative) cost overruns for idle production capacity (12.1 % of the total) and multiple facilities. The companies most affected are those in the industrial sector and those located on non-capital islands, which are exposed to double insularity. On the other hand, Canary Islands companies report difficulties in finding adequate staff, accessing competitive suppliers and carrying out R & D & I activities, due to the condition of insularity and periphery.*

The outermost regions and their handicaps are largely structural in nature, with little or no change over time. It is therefore understandable that the associated costs are maintained (with changes in technology or production structure).

Macroeconomic impact

*With regard to the overall impact of the tax advantages included in the REF, it is worth highlighting empirical studies analysing their macroeconomic effects. **Sosvilla et al., (2006) and Díaz et al. (2007)** in the course of work carried out thanks to the adaptation of the HERMIN macroeconometric model to the Canary Islands economy, the results have been found to have a significant positive effect as a result of the specific fiscal and economic characteristics of the Canary Islands. In particular, the implementation of the REF would contribute positively to GVA growth and to an increase in the level of employment and labour productivity. The unemployment rate would also be reduced on average by the effect of the REF and real income per inhabitant would increase significantly as a result of tax advantages. However, the REF would have some negative effects (such as its contribution to the increase in the inflation rate).*

Studies on the effects of the Canary Islands Investment Reserve

The Canary Islands Investment Reserve (RIC), governed by Article 27 of Law 19/1994, is one of the main incentives of the REF as it has the capacity to stimulate investment and job creation on the islands. In this regard, there is work to analyse the effectiveness of this instrument in a differentiated and specific way.

***González (2003)** assesses the ratio of the RIC and the deduction for investments in the Canary Islands (CID)*

in the level of the tax burden on personal income tax and the Canary Islands IS and concludes that these tax incentives increased the tax differential from 2,52 percentage points to 4,93 percentage points in relation to Spain as a whole.

*On the one hand, the **Villar study (2004)** seeks to assess the effects of the RIC tax incentive on the cost of capital and business investment in the Canary Islands over the period 1996-2001, thanks to the use of a King Fullerton investment model. The results of the study show that there is a marked reduction in the cost of capital for businesses in the Archipelago and an increase in investment items. Moreover, the cost of capital is significantly lower for Canary Islands companies than for their counterparts in the rest of Spain, and there is a divergence in the financing of island companies from those in the rest of Spain.*

***Blázquez (2006)**, for its part, demonstrates, by means of an empirical analysis based on a sample of companies, the positive impact of the ICR between 1994 and 2002 on various variables such as the growth process of small and medium-sized enterprises operating in the archipelago, stimulating private investment, improving business competitiveness, job creation and social cohesion.*

*On the other hand, other work such as **Dorta et al. (2007)** they seek to make a descriptive diagnosis of the behaviour of companies with regard to the use and effects of the ICR, its degree of tax use, the destination of funds and its socio-economic impact. The authors quoted analyse the impact of the ICR on job creation, investment growth and the renewal of productive infrastructure, as well as its contribution to business diversification and the impact of the instrument on the economic and financial behaviour of companies. The results obtained show that, in the period under review (19942002), the positive effects of ICR result in a high correlation between the share of profits earmarked for ICR and corporate rates of return, as well as a significant capitalisation process in Canary Islands companies and a certain financial equilibrium. The work also shows that there is a positive correlation between employment and the allocation to the ICP.*

***Medina et al. (2009**) they assess the effect of CRM on SME indebtedness and dividend distribution, finding a negative relationship between the use of ICR and the level of corporate indebtedness, because this reserve favours the use of own resources and investment in tangible assets for the company itself. Its results indicate that the use of the tax benefit negatively affects the distribution of dividends.*

***Déniz et al. (2009)** they carry out a survey of the senior staff of companies in the secondary sector in the Canary Islands Archipelago, enabling them to assess the environmental effects of the ICM. 16.40 % of respondents strongly agree or strongly agree that the ICM has generally contributed to environmental improvement and protection, while 50 % consider that current legislation does not take into account the fact that certain investments under ICM cause damage to the environment.*

Areas and issues relevant to be incorporated into the REF Evaluation Plan that constitute investment aid 2015-2023

With regard to the work carried out so far on the evaluation of the REF, the following observations should be made:

1. *Despite the existence of macro and micro economic data for the period prior to the aid period under analysis, there is no specific ex ante evaluation work to supplementthe scheme of the REF approved by Royal Decree-Law 15/2014 of 19 December[3] and, which has been the subject of regulatory development by Royal Decree 1022/2015 of 13 November[4] and. Therefore, in line with the provisions of Regulation 651/2014, an evaluation of the reform of the REF implemented through both provisions will make it possible to analyse the coherence, relevance and adequacy of future measures to be taken in relation to the objectives to be achieved. This assessment will not be limited to the novelties incorporated in the REF for the period 2015-2020 but will cover the tax scheme for investment aid as a whole.*

2. *On the other hand, there is no specific authority responsible for carrying out the evaluation or monitoring of the measures or instruments of the REF. However, it is not only in the interest of the European Commission but of the Spanish authorities to gauge the effectiveness of the aid scheme and to correct any possible malfunctions that may arise. In the case of a tax regime governed by state laws but with the regulatory capacity of the Canary Islands authorities in some of their tax incentives, a working group has been set up with*

representatives of the Institute of Tax Studies, an autonomous body within the Ministry of Finance and the Civil Service, the Directorate-General for Taxation, the Tax Agency and the State Secretariat for Finance, and the Autonomous Community of the Canary Islands, which has prepared this evaluation plan. Further developments will be led by the Institute for Tax Studies, which will be supported by the members of the previous working group, and will be able to rely on external partnerships from public and private entities, as well as appropriate experts.

3. *The evaluation work of the REF comes primarily from academia and has focused its methodologies on descriptive analysis of samples or surveys of employers. With regard to the work analysing the macroeconomic impact and identifying the effects of the measures on certain variables such as GVA, job creation, productivity and inflation, only take into account the impact on two sectors, the public and the private sector. However, it would be advisable to incorporate evaluation tools to allow for a multi-sectoral analysis of the impact of the tax system. This need arises both fromthe fact that the outermost regions' costs are different in nature and amount by branch ofactivityand[17] that the larger figures in the REF, mainly the CRP, make it possible to materialise investments by sector and with differentiated impacts.*

4. *On the other hand, the analysis will be carried out for the most part at micro level, since at macro level the total amount of aid (0.77 % of GDP) is not so significant that it can be imposed on the other variables to which the Canaria economy is subject, and it is difficult to isolate the effect of the REF. However, the possibility of assessing the indirect effects of investment aid from the REF on the macroeconomic variables of the Canary Islands economy is envisaged.*

5. *As regards the areas of assessment, Regulation (EU) No 651/2014 refers to the obligation to submit evaluation plans for regional investment aid schemes with an average annual budget of more than EUR 150 million. The carry-over for the years 2022 and 2023 of the part of the tax benefits of the REF constituting investment aid has been estimated at an average annual budget of EUR 293 million.*

2. Objectives of the aid scheme tobe evaluated and[18]

2.1 Please provide a description of the aid scheme specifying the needs and problems the scheme intends to address and the intended categories of beneficiaries, for example size, sectors, location, indicative number.

Justification for a tax incentive scheme

The REF derives from a long tradition dating back to the 15th century. In this regard, the promulgation in 1972 of Law 30/1972 of 22 July on the Canary Islands' Economic Tax Regime established a compendium of measures designed to offset the costs of their geographical location and to promote the economic and social development of the islands. However, since its entry into force, the REF has undergone substantial amendments both to bring it into line with European Union law and to create new or strengthen existing ones, essentially contained in the following legislative provisions: Law 20/1991 of 7 June 2009 amending the tax aspects of the Canary Islands' Economic Tax System and Law 19/1994 of 6 July 2009 amending the Canary Islands' Economic and Tax Regime. Both rules have been reformed on numerous occasions.

Socio-economic needs and problems

17 Centre for Economic Studies, Tomillo Foundation (2002).

18 In addition to providing a general description of the scheme's objectives and eligibility rules, the purpose of this section is to assess how the eligibility and exclusion rules from the scheme can be used to determine the effect of the aid. In some cases, the precise eligibility rules may not be known in advance. In those cases the best available expectations should be provided.

The development of the Canary Islands' economy is conditioned by certain permanent characteristics, as set out in Article 349 TFEU.

The obstacles to the development of small island economies far from developed continents have long been identified by literature. In other words, the small size creates barriers to achieving economies of scale and scope; remoteness includes transport and, in general, logistics costs; both events – small and remote – entail information costs, problems with small input markets, and market concentration on the supply side.

In this way, small economies far from developed continents have little chance of obtaining competitive advantages and specialise in economic activities where they have absolute advantages. This reduces the range of investment possibilities. Much more so when these economies are highly vulnerable to external shocks, as described by the United Nations.

Investment tax incentives aim to facilitate economic activities in a limited economic environment: (a) where the islands' economy has 'absolute advantages', these are economies of export of goods or services, such as certain agricultural goods and those related to demand for tourism services; (b) where proximity to the market makes it possible to obtain competitive advantages, such as close trade and industry, provided that they derive advantages from proximity; (c) where companies have sufficient strength to stay in an environment vulnerable to external shocks. These factors, taken together, are crystallised in small and medium-sized enterprises (in 2021 in the Canary Islands there are 148 companies with more than 250 employees, Directory of Companies, INE).

In these circumstances, it seems obvious that the investment capacity cannot be of a large size and that investment incentives cannot aim at a significant volume. In other words, for similar levels of profit of two companies located in the continuous territory, one in remote island territory, the efficiency of the incentive will be favourable to the former for strictly objective reasons.

These permanent obstacles to the development of small island economies far from developed continents, as mentioned above, are recognised in the EU regulatory order, in the economic and fiscal specialities of the Canary Islands since the 15th and 16th century, as well as in the tradition of global economic analysis.

Such obstacles can be captured synthetically through certain indicators.

a) Indicators of economic activity

The evolutionof the GDP of the Canary Islands reveals a progressive decline in the growth capacity of VAB19 over the past two decades (average cumulative growth, BD mores database, State Secretariat for Budget and Expenditure: 3 % decade 1990-1999; 1.5 % decade 2000-2009; 0.9 % decade 2010-2019) to the extent that the last decade reveals growth close to economic stagnation.

19 GVA is used and not GDP to ignore the problem of valuation of GDP, stemming from the method of allocating net taxes on products that is under review and change.

The second indicator showing the importance of the obstacles to development referred to in Article 349 TFEU is GDP per capita and the significant process of divergence with the Spanish and European Union economies (from 2000 to 2022, the Canary Islands have increased from 97.8 % of GDP per capita to 73.6 % in Spain, INE; and from 95 % of EU average GDP to 62 %). This loss results from the combined effect of loss of growth capacity and significant population growth (NSI, population in 2000, 1.667.400; population in 2020, 2.244.500).

A third indicator relates to investment aid. This is the Gross Fixed Capital Training. This is an indicator of investment, as a result, determined by business expectations, which reveals the volatility in the islands' economy and the elasticity with respect to the phases of economic cycles (cumulative growth in the first decade of the cycle was -2.57 % and 2.57 % in the second decade (until 2019).

b) Employment indicators

The islands' economy has been in a paradox since the 1970s: high permanent unemployment rates, mainly among young people, and also permanent growth in the labour force. The paradox is complemented by the fact that average wages in the Canary Islands fluctuate around 80 % of average wages in Spain as a whole. Although the coexistence of labour force growth, high unemployment rates and low wages, challenging budgets for economic analysis – hence the paradox – is the fact that labour demand is not sufficient to meet labour supply requirements.

A more important aspect of this paradox should be taken into account: high employment intensity of economic growth. In other words, the Canary Islands economy, due to its specialisation patterns, has a high short-term employment elasticity relative to GDP growth rates (1.47 %). Of this kind, in the expansion phase, employment is growing rapidly, but at moderate growth stages it is equally easily destroyed.

The consequence of this paradox is that unemployment rates remain far from full employment. A further issue deserves to be linked: as a large part of the labour force growth comes from migration flows from other Autonomous Communities, the high unemployment rates in the Canary Islands, from a numerical point of view, have the effect of reducing unemployment rates in other regions, which should be assessed for the purposes of investment incentives.

Description of the investment aid in the REF

Despite numerous legislative amendments throughout the period in which it has been implemented, the REF has been composed of a series of measures that make up the current "core" of this regime and whose overall schemes have remained constant. The main measures that form part of this aid scheme and which are classified as investment aid are as follows: Investment incentives, Reserve for Investment in the Canary Islands (hereinafter RIC) and Corporate Tax Deductions (CID). The following are summarised below:

Investment incentives

Article 25 of Law 19/1994 provides for the application of tax incentives to investment, implemented through the exemption from the tax on capital transfers and documentary legal acts (ITP and AJD) for companies established in the Canary Islands that improve their production capacity, excluding investment in certain properties. Under no circumstances is it applicable to employers or professionals who are natural persons.

The tax incentives also take the form of certain exemptions from the Canary Islands General Indirect Tax (IGIC). IGIC is a State tax of an indirect nature on supplies of goods and services by traders and professionals and on imports of goods into the Canary Islands. Its regulation and mechanical application offers a great similarity 92

with VAT, with some specialities to adapt to the specific features of the Canary Islands and which respect the maintenance of the exemption for consumption explicitly regulated in the Statute of Autonomy of the Canary Islands.

The regulation of the IGIC offers various additional advantages, such as lower rates of taxation, compared with the rules on value added tax; the application of a zero rate to certain essential goods and services and the exemption of supplies of goods in the course of a commercial activity at the retail level.

The incentives concern the exemption in the IGIC for companies which are not entitled to full deduction of that tax on the acquisition or importation of capital goods or intangible fixed assets located and used in the Canary Islands, in the context of an initial investment, provided that it is made by a company established in the Canary Islands, or at least with a permanent establishment in the Archipelago. Capital goods must be new unless the purchaser or importer is of a small size which may be used. This is a full exemption for the transferor of capital goods and intangible assets.

These two incentives constitute investment aid.

Reserve for investments in the Canary Islands (RIC)

Article 27 of Law 19/1994 determines the characteristics of this tax benefit for entrepreneurs or professionals who are liable to corporation tax or personal income tax, which is intended to encourage productive business investment and the creation of public infrastructure in the Canary Islands. The aim of the CRP is to stimulate the investment effort from own resources, i.e. the self-financing of investments by companies operating in the Canary Islands, thereby helping to overcome a problem that was endemic in the Canary Islands. The CRP, in its natural or general configuration, responds to the freezing of profits in an unavailable reserve which will then materialise in future productive investments.

Depending on the destination of the allocations made to the CRP, this incentive will be in the nature of investment aid or operating aid. Article 36 of Royal Decree 1758/2007 of 28 December 2015 clarifies both situations.

Special Investment Deduction Scheme in the Canary Islands (CID)

The deduction for investments in the Canary Islands is a tax incentive, which is equivalent to that existing on the national territory, but with a higher intensity of the tax advantage obtained. All companies and other legal entities subject to corporate tax may benefit from this incentive for the investments they make and remain in the Canary Islands, provided that they are resident or have a permanent establishment on the islands. Natural persons carrying out business and professional activities in the archipelago may also benefit.

The rates applicable to investments made must be 80 per 100 higher than those under the common scheme, with a minimum differential of 20 percentage points. The limits of the deduction are 80 per 100 higher than those of the common regime with a minimum differential of 35 percentage points. Where the Community rules on State aid so permit and the investments made in La Palma, La Gomera or El Hierro, as referred to in Law 2/2016 of 27 September, the minimum ceiling of 80 per 100 shall be 100 per 100, with a minimum differential of 45 percentage points.

In the same way as with the CRP, depending on the nature of the investment to which this incentive applies, it will be qualified as investment aid or operating aid.

Table 2.1 below shows the beneficiaries of each of the aid described, the approximate size of the aid, the sectors or sectors targeted, their location and an indicative

number and amount obtained from the tax statistics of the State Tax Administration Agency (AEAT).

Table 2.1. Aid beneficiaries by size, sector, location, indicative number and amount.

Measures	Beneficiaries					
	Nature	Size	Activity sectors	Location of the activity	Indicative number of beneficiary (Form 282 declarants)	Amount of tax items (EUR million, model 282)
Investment incentives	Companies that expand, diversify their capacity or innovate domiciled or have a permanent establishment in the Canary Islands	All sizes	All sectors	All Islands	174	5,41
Reserve for investments in the Canary Islands (RIC)	Business or professional persons liable to corporation tax or personal income tax, resident or with a permanent establishment in the Canary Islands with positive tax bases	All sizes	All sectors	All Islands	1124	79,23
Deduction for investments in the Canary Islands (CID)	Employers or professionals liable to corporation tax or personal income tax who make investments in the Canary Islands and who have their domicile or a permanent establishment on the islands.	All sizes	All sectors	All Islands	774	131,14

Source: Own production on the basis of the AEAT data for the 2020 financial year

2.2 Please indicate the objectives of the scheme and the expected impact, both at the level of the intended beneficiaries and as far as the objective of common interest is concerned.

Objective of common interest

The Canary Islands' status as an outermost region (ORs) is recognised in Article 349 (1) TFEU.

These regions are a unique reality, forming a whole within the European Union, which differs from the other European regions, mainly characterised by:

A great distance from the European continent, exacerbated by insularity, including double insularity or isolation. Isolated in their geographical environment and significantly away from large trade flows, the ORs face the impossibility of fully benefiting from the advantages of EU trade;

A very small local market and thus economic dependence on a small number of products;

Adverse topographical and climatic conditions, small surface area, vulnerability to climate change and extreme weather events;

A geographical environment composed exclusively of third countries of the EU or a fully isolated space, two strategic issues in terms of integration and cooperation;

The persistence, accumulation and combination of these characteristics constitute structural constraints that seriously undermine the economic, social and territorial development of these regions. This reality justifies a special and differentiated treatment recognised in EU law.

The European Commission has set out this special and differentiated treatment over the years in successive communications on the Community strategy in favour of the ORs (Commission communications of 2000, 2004, 2007, 2008, 2012, 2017 and 2022).

The guidelines laid down by the Commission have therefore been the guiding principle for a development strategy for the ORs, designed along three lines:

- *Accessibility: reducing accessibility problems and compensating for other handicaps that are characteristic of the ORs;*

- *Competitiveness: improving the general conditions for economic and social development;*

- *Regional integration into the respective geographical areas of belonging, with the aim of extending the ORs' natural area of socio-economic and cultural influence.*

These three axes have been combined, such as strengthening the social dimension, through measures to create jobs, improve skills and educational levels, reduce the drop-out rate, increase the number of graduates in higher education, combat poverty and improve both access to health care and social inclusion.

In this context, Article 349 TFEU expressly permits the modulation of European legislation, inter alia, on State aid. The tax incentives in the REF constitute State aid and are mostly regional aid within the regulatory framework established by the Regional Aid Guidelines (RAG) and the General Block Exemption Regulation (GBER), which contain specific exceptional provisions in favour of the ORs.

From 1994 until the period until 31 December 2013 (extended until the end of 2014), the aid in the REF was successively notified to the European Commission in order to comply with the current Article 108(3) TFEU within the framework of the relevant RAG. On the other hand, as from the period 2014-2020, the reference standard for the Canary Islands REF is the GBER, and specifically, as far as investment aid is concerned, Article 14 thereof.

The objective of common EU interest, as set out in the REF scheme, can be derived from the Explanatory Memorandum to Law 19/1994, which states that the aim of all the tax incentives contained in the REF is ***to establish a system that promotes Canary Islands' economic activity through job creation, the enhancement of its various island areas, the provision and regulation of a focus of attraction to entrepreneurship and the presence of external investors****.*

Law 19/1994 and its successive amendments and amendments, such as Royal Decree-Law 15/2014 and Law 8/2018 of 5 November, propose different types of measures to achieve these general objectives of common interest, in particular economic and fiscal measures, and within the latter, tax incentives which constitute aid for initial investment and other forms of operating aid.

In this context, and more specifically, the general objectives of the investment tax incentives that are the subject of this evaluation plan can be summarised as follows:

- *Economic growth in the Canary Islands*
- *Creating jobs*
- *Increasing private investment*
- *The capitalisation of Canary Islands companies*

Table 2.2 details the general (objectives of common interest) and specific (in relation to beneficiaries) objectives as well as the expected impacts of the fiscal measures included in the REF.

Table 2.2. General and specific objectives and expected impacts of the REF Investment Aid

Areas	Objectives of common interest	Specific objectives (beneficiaries)	Expected impacts

Investment incentives	Encouraging investment in intangible assets and capital goods, as well as the creation and expansion of enterprises	Reduce the relative cost of acquisition of capital goods and intangible fixed assets	Increase investment in fixed assets
Reserve for investments in the Canary Islands (RIC)	Promotion of job creation, alignment of public investment in the Canary Islands with the national average, modernisation of the production structure through the continuous flow of investment and, consequently, improving its competitiveness	Capitalisation of Canary Islands companies. Sanitation companies' finances; Stimulating the investment effort from own resources and promoting job creation. Involve financial institutions in structuring investments and attracting RIC investors in larger strategic projects.	Increase the number of jobs created. Improve investment in tangible and intangible assets. Increase in the purchase of government debt and equity participation in other companies
Deductions for investments in the Canary Islands (CID)	Attracting medium- and long-term investment on islands	Reduce the relative cost of acquisition of tangible and intangible assets	Increase investment in fixed assets

Source: own elaboration

2.3 please indicate possible negative effects on the aid beneficiaries and on the wider economy that could be directly or indirectly associated with the aidscheme[20].

The application of tax aid to investment in the REF may have a number of effects which directly or indirectly limit the attainment of its ultimate objectives. The following are those considered to be the most relevant:

- *The tax aid scheme for investment in the REF is made up of a number of instruments of an essentially pro-cyclical nature. Since they are incentives that ultimately reduce effective taxation on corporate profits, in the phases of economic slowdown and crisis, their impact is very limited and, during crisis periods, they do not appear to play the desirable counter-cyclical role.*

- *For the same reason as outlined above, the measures are biased towards the most profitable and competitive companies (which benefit most from the incentives) and may lead to a certain tax regression, indirectly.*

- *It can lead to price increases for capital goods whose supply is limited. This was the case for the properties, for which the ICM boosted the rise in prices. However, once detected, it was corrected by successive amendments within the period under analysis.*

- *The set of measures included in the scope of this analysis is targeted at businesses as drivers of economic growth, indirectly benefiting citizens through employment or business profit sharing.*

2.4 Please indicate: (a) the annual budget provided for in the scheme, (b) the duration of the[21]usage or (c) the aid instruments and (d) the eligible costs.

See the following question.

2.5 Please provide a summary of the eligibility criteria and the methods for selecting the aid beneficiaries. In particular, please describe the following: (a) the methods for selecting beneficiaries (e.g. scores), (b) the indicative budget available for each group of beneficiaries, (c) the probability that the budget will be exhausted for certain groups of beneficiaries, (d) the scoring rules, if used in the scheme, (e) the aid intensity thresholds and (f) the criteria that the granting authority will take into account when assessing applications.

20 Examples of negative effects are regional and sectorial biases or crowding out of private investments induced by the aid scheme.

Aid[21] schemes as defined in Article 1(2)(a) of Regulation No 651/2014 shall be excluded from the scope of the Regulation six months after its entry into force. After having assessed the evaluation plan, the Commission may decide to extend the application of the Regulation to such schemes for a longer period. Member States are invited to precisely indicate the intended duration of the scheme.

Questions 2.4 and 2.5 are discussed together as follows:

Budget

The form notified to DG COMP for investment aid in the REF, under the General Block Exemption Regulation, states that the annual budget for investment aid in the REF has increased in recent years to EUR 303 million in 2019, although it is estimated that, as a result of the crisis that began in 2020, this figure may be reduced.

Duration of aid

The aid extended until 31 December 2023 is that in force in the period 2015-2022 and is intended to be extended until the end of the period of validity of the regional aid map (2027).

Instruments, eligible costs, criteria for selecting beneficiaries and aid ceilings

a) Investment incentives for indirect taxation

Adjustment

Article 25 of Law 19/1994

Instruments and beneficiaries

The investment incentives are based on the following tax advantages provided exclusively for entities subject to corporate tax resident in the Canary Islands and those operating in the Canary Islands through permanent establishments.

Double exemption in the ITP and AJD, in the form of corporate transactions (the formation and increase of capital), subject to the condition that the capital raised is used for the acquisition or importation of capital goods or intangible assets, provided that it is made as part of an initial investment.

b) Reserve for investments in the Canary Islands (RIC)

Adjustment

Article 27 of Law 19/1994

Instruments and beneficiaries

The allocation to the RIC represents tax advantages from which, in relation to the activity carried out in establishments in the Canary Islands, all companies and other legal entities subject to corporation tax and natural persons subject to personal income tax may benefit, whether their net income is derived from business or professional activities and is calculated using the direct estimation method.

The essential condition for benefiting from the CRP is that the company, irrespective of where it is domiciled, has a permanent establishment in the Canary Islands. 'Permanent establishment' means all premises or workplaces where, on a continuous or regular basis, it carries out all or part of its activity, with the power to hire, in the name and on behalf of the non-resident person or entity.

Application and calculation

The CRP makes it possible to reduce the tax base by up to 90 % of the profits not distributed in corporate tax by the amount that establishments in the Canary Islands use their profits to the allocation of the reserve for investment in the Canary Islands. Undistributed profits are those intended to feed the company's reserves. The calculation of this variable is the result of deducting the Gross Accounting Benefit for the financial year in which the CRM, the Legal Reserve and the dividends to be distributed were allocated. The ICP can also be applied to personal income tax. In this case, it would result in a deduction from the full amount of personal income tax in respect of the net operating income assigned to the RIC. The calculation is made by applying the average tax rate to the allocation to the CRP, subject to a limit of 80 % of the full portion of the income.

New developments introduced by Royal Decree-Law 15/2014

The amendments introduced by the latest amendment to the REF, while maintaining the current structure and all investment possibilities, provide for the following improvements:

A new job creation line not linked to previous investment is established. Under conditions: (1) there should be net staff increase; (2) a maximum of 50 % of the envelope; (3) the staff increase should be maintained for 3 years (SMEs), 5 years (rest) and (4) the materialisation will only be considered to have occurred during the first 2 years after the increase in the workforce occurs and will be counted, in each tax period, by the amount of the average cost of gross wages and compulsory social contributions corresponding to that increase. (5) the maximum average cost per employee charged to the CRP will be less than EUR 36.000.

There is an expansion of the possibilities for indirect investment through the financial securitisation of projects with the aim of involving financial institutions in the structuring of investments and the uptake of RIC investors in larger strategic projects.

The concept of declining tourist area has been removed, with land investment being allowed in all renovation projects (irrespective of the location of the property).

Certain quantitative restrictions (such as at least EUR 750.000) are removed for the investment of RIC in the SAC.

Certain formal obligations such as the Investment Plan are relaxed and reduced, as well as a significant reduction in the system of penalties for failure to comply with formal obligations, which adversely affected small businesses as a result of the possibility of imposing fixed pecuniary fines, which could go beyond the tax savings generated.

Clarification is provided on the inclusion of the entire accounting profit, including that generated by the transfer of non-assigned assets, in the allocation base of the CRP.

New developments incorporated by Law 8/2018

Law 8/2018 introduced some changes to the CRP set out in Article 27 with the aim of updating it to take account of the significant structural changes in the Spanish and international economy since the adoption of Law 19/1994, thus enabling a higher degree of compliance with the objectives. In addition, Law 8/2018 includes other amendments for improvement, which reflect the experience gained during the years of its operation and which seek to improve its operability. These changes include:

New specifications are introduced for the treatment of undistributed profits. In particular, it is stated that the transfer of assets the acquisition of which would result in the realisation of the reserve for investments with profits from tax periods from 1 January 2007 will not be regarded as an undistributed profit. It is also stated that, in the case of assets which were only partially intended for the realisation of the reserve, from that date onwards, the proportion of assets corresponding to the acquisition value which would not have resulted in the realisation of that reserve is to be regarded as undistributed profits.

With regard to the investments in which the reserves must be realised, it is stated that under no circumstances can the reserve for investments in the Canary Islands be realised in the renovation or renovation of buildings intended for residential purposes for tourism purposes. At the same time, the possibilities for land use in which the investment is made include health partner activities, residential centres for the elderly, geriatric homes and neurological and physical rehabilitation centres.

Finally, with regard to the assets in which the investment takes place, it is added that intellectual property rights will be deemed to be located and used in the Canary Islands archipelago, in so far as they were created with the resources of the entity located in the Canary Islands or acquired from third parties for conversion, provided that their economic exploitation is directed, carried out, contracted, distributed, organised and invoiced from that area. It is also stated that the concept will

be that provided for in the sectoral legislation protecting these rights and will require that the right resulting from the conversion becomes operational in the same tax period as the acquisition of the original right from third parties.

New developments incorporated by Royal Decree-Law 31/2021 of 28 December 2015:

Following the notification by Spain to the European Commission on 1 December 2021 of its Regional Aid Map for the period 2022-2027, there is a need to amend several temporary references contained in Law 19/1994, so that the legal references have the same temporal scope as the period of validity of Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, applicable to this type of tax measure. This amendment is made by Royal Decree-Law 31/2021 of 28 December, which reworded Article 27(11) of Law 19/199 4,indicatingthat22 taxpayers may make advance investments, which will be considered to be the materialisation of the reserve for investments made out of profits made in the tax period in which the investment is made or in the three following years. These allocations must be made from profits made up to 31 December 2023.

c) Deduction for investments in the Canary Islands (CID)

Adjustment

Article 94 of Law 20/1991

Beneficiaries

The Investment Deduction in the Canary Islands is a tax incentive that has only been applied in the Canary Islands since 1 January 1996. This special deduction scheme for investments in the Canary Islands is applicable to the following persons and entities:

All companies and other legal entities subject to corporate tax on investments made and remaining in the Canary Islands, provided that they are domiciled in the Canary Islands and, if they are not, have at least one permanent establishment on the islands.

Natural persons carrying out business and professional activities in the Canary Islands, provided that they meet the conditions imposed by the personal income tax legislation for the application of the investment incentives laid down in corporate income tax.

Calculation

The deduction for investments in the Canary Islands constitutes a tax incentive measure which operates as a reduction of the full tax after the application of the double taxation deductions and possible bonuses. In general terms, the amount of the deduction is calculated in each case by applying the percentage of deduction laid down by law for each type of investment from the total amount of investments made.

Applicable rates

The higher intensity of the tax benefit of the Canary Islands' special investment deduction scheme is as follows:

22 This amendment was subject to the authorisation by the European Commission of the Regional Aid Map for the period 2022-2027.

The rates applicable to investments made shall be 80 % higher than those under the general scheme, with a minimum differential of 20 percentage points.

In respect of the applicable limit, it shall be 80 per 100 higher than under the general scheme, with a minimum differential of 35 percentage points.

The deduction for investment in the Canary Islands may also be made on used fixed assets, provided that they have not previously benefited from the deduction for investments under the general scheme and result in a technological improvement for the undertaking.

In accordance with the provisions of Law 8/2018, in the islands of La Palma, La Gomera and El Hierro, the minimum ceiling of 80 % will be increased to 100 % and the minimum differential will be increased to 45 percentage points when Community State aid legislation so permits and the investments are covered by Law 2/2016 of 27 September and other laws on measures to regulate the economic activity of these islands.

Limits on deduction

The deductions for investments in the Canary Islands shall be applied within the limit of 55 per 100 on full tax, reduced by deductions to avoid double taxation and bonuses. Notwithstanding the above, that overall limit of 55 per 100 shall be increased to 90 per 100 if the amount of the deduction for scientific research and technological innovation activities provided for in Article 35 of the Corporate Tax Law exceeds 10 per 100 of the full amount, reduced by deductions to avoid domestic and international double taxation and bonuses.

2.6 Please mention specific constraints or risks that might affect the implementation of the scheme, its expected impacts and the achievement of its objectives.

In the event of sustained growth of the Canary Islands economy conducive to the generation of corporate profits, increasing the allocations to the ICR, the estimated budget of the REF will need to be updated to take account of the application of the REF investment aid by a large number of companies and for larger amounts, as the notified budget responds to data obtained in an adverse economic context.

3. Evaluation questions

3.1 Please indicate the specific issues to be addressed in the evaluation by providing quantitative evidence of the impact of the aid. Make a distinction between: (a) questions related to the direct impact of the aid on beneficiaries, (b) questions related to indirect effects and (c) questions related to the proportionality and appropriateness of the aid. Please explain how the evaluation questions relate to the objectives of the scheme.

The general objective of the assessment of a State aid scheme is to assess the positive and negative effects of that scheme, to what extent the objectives initially set out have been achieved and what negative effects on markets and competition may have occurred. The evaluation goes beyond monitoring and the use of indicators and should answer a number of initially established questions aimed at answering the results obtained.

The questions differ depending on thespiritof the evaluation in which they are made. The controller should consider already from the design point of[11] *whether the reformed measures can achieve the proposed objectives and to what extent they will have an impact on them. Similarly, at the end of the period during which those measures have been implemented, the same responsibilityand may check whether or not those cases of departure have actually had the predicted effector not*[23]*.*

11 Ex ante.

The amendment to the REF for the period 2015-2020 (extended until 2023) entails increased tax incentives,

23 Ex post.

which are geared towards achieving the following objectives:

- *Economic growth in the Canary Islands*
- *Creating jobs*
- *Increasing private investment*
- *The capitalisation of Canary Islands companies*

For example, as regards the modification of investment incentives, one could think ex ante what the expected impact on the investment in intangible assets will be before the measure was implemented. One of the questions in this case would be, does the modification of these incentives have an effect on the investment of Canary Islands firms and what is the magnitude of that effect?

The evaluator should not only ask the question at the beginning. After the end of the 2015-2023 period together with the necessary extension in time to continue to identify the effects of measures taken in that period, has the effect of modifying these incentives on the investment of Canary Islands firms, and what was the magnitude of that effect?

The evaluation cycle needs to use known past experiences as a starting point for public intervention. Thus, the 2015-2023 REF should know which evaluations have been carried out in previous periods, focus on problems that were not properly addressed and serve as a starting point for the years to come. Annex I to this document provides a list of the assessments that have been made during other periods of the REF.

In addition to taking into account the timing of public action, the evaluation should structure its questions in order to be able to respond to more comprehensive and strategic objectives but also to specific objectives. It is clear that, as a whole, the REF promotes, among other things and as just listed, job creation, but, in addition to asking about this overall objective, it must consider analysing more specific and specific objectives, such as employment by sector or by type of undertaking. Therefore, evaluation questions are a key step in drafting at the beginning of any one of them, since no solid answers can be expected afterwards if it is not clear to what is being answered. This is not the case for the overall impact of the full reform of the REF on growth and jobs in the Canary Islands community, which wonders about the concrete effects of the new deduction for investments on the African continent. It is clear that if the implementation of a specific measure were to increase production and sales, contributing to the economic growth of the Autonomous Community, it is contributing to the overall growth that all measures can produce as a whole. The two evaluations are useful and necessary, although it is true that since the beginning of the economic crisis in 2008, the result-orientation demanded by the public authorities has emphasised the need to include micro-economic impact assessments that conclude the effects of the intervention on the basis of the evidence shown by the data, and which may show the difference between receiving and not receiving aid from groups of individuals or companies benefiting from and not benefiting from public action.

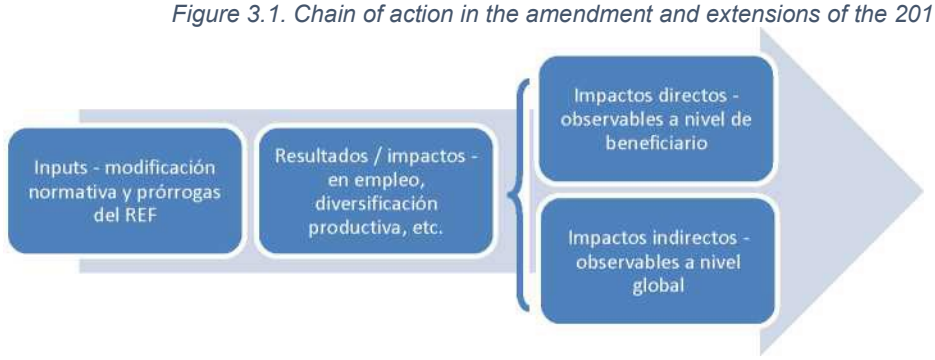
In this respect, the evaluation will identify and quantify the positive and negative impacts of investment aid in the new REF on various macroeconomic and microeconomic indicators, taking into accountor taking into account the guidelines established by the European Commission for the evaluation of State aid24. Inline with the Commission's guide, two types of impacts are identified:

- *Direct impacts: these are those impacts that can be quantified in a more robust way, i.e. they would be impacts where the causality between the action and the effect of the action can be observed at beneficiary level. In this sense, the evaluator can quantify the impact as the difference between the outcome after the action and the result that would have occurred in the absence of the action (counterfactual).*
- *Indirect impacts: these are those impacts that occur at a higher level of aggregation and under which they come together with possible spill-over and crowding out effects. Their evaluation requires methodologies different from those used to quantify direct impacts and their interpretation calls for an analysis of interdependencies, where the multisectoral perspective is essential to*

24 European Commission: Common methodology for State aid evaluation. SWD (2014) 179 final.

understand the impact of the programme.

Figure 3.1. Chain of action in the amendment and extensions of the 2015-2023 REF.



Source: own elaboration

Therefore, causation in the case of the REF is presented as a chain of action along the lines of a series of inputs which refer, in this case, to the various amendments to the REF and which, directly and indirectly, will have a certain impact in terms of job creation, productive diversification and technology-intensive investment.

Causality is one of the pillars underpinning the Change Theory and largely supported by the Evaluation Theory.

In line with the European Commission's guide for the evaluation of State aid, the evaluation questions and sub-questions and their ranking would be as follows:

1. *Questions to assess the direct impact of the aid on beneficiaries:*

   a. *Has the aid had a significant impact on the development of the action by the beneficiaries? (incentive effect)*
      i. *How has the number of firms receiving aid evolved?*
      ii. *Are there any types of undertakings that use this aid more frequently?*

   b. *Has it had any impact on the situation of beneficiaries?*
      i. *Did the use of this aid create jobs in the beneficiary companies?*
      ii. *Did companies benefiting from the tax benefits of the REF increase investment in technology?*
      iii. *What is the level of capitalisation of the companies that benefited from the tax benefits of the REF?*
      iv. *Are there significant changes in the level of investment of the beneficiary firms?*

   c. *Have you produced the expected effects?*
      i. *Has the aid in the REF led to job creation?*
      ii. *Has the aid in the REF increased technological investment?*
      iii. *Have companies increased their investment levels?*

   d. *Have the beneficiaries been affected differently?*
      i. *Is there any type of company where the aid is most effective?*
      ii. *In which type of companies is there a lower impact of the programme?*
      iii. *What are the sectors of activity most affected by the REF?*

   e. *Has the programme contributed to the policy objective set?*
      i. *Has the REF contributed to the creation of jobs for businesses in the Canary Islands?*

ii. *Has the REF been a driver of the economic activity of businesses in the Canary Islands?*

2. *Questions to assess the indirect impact of the programme:*

a. *Has the programme led to spill-over effects on other companies?*
   i. *Has the productive structure of the Canary Islands economy changed?*
   ii. *Has the sectoral structure of employment in the Canary Islands been changed?*
   iii. *Are there any companies, sectors of activity or regions that have been affected (positively or negatively) by the Canary Islands REF?*

b. *What are the indirect effects of the REF on the macroeconomic variables of the Canary Islands Community?*
   i. *Has the REF influenced the economic activity of the Canary Islands?*
   ii. *What effect has the REF had on employment in the Canary Islands?*

c. *Has the programme contributed to the policy objective set?*
   i. *Has the REF led to an economic activation in the Canary Islands?*
   ii. *Does the REF involve an improvement in the Canary Islands as a focus of attraction to entrepreneurship?*
   iii. *Has the REF been proportionate and appropriate?*

Table 3.1 defines and establishes the relationship between the questions that the REF evaluation will answer quantitatively with the fundamental objectives of the REF, as well as a classification of the questions according to the type of impact they seek to quantify.

Table 3.1 Some examples of questions for the evaluation of investment aid in the REF according to typology of impact and relation to the objectives of the programme.

Question to assess impact	Type of impact	Objectives of the new REF
Does the modification of investment aid under the REF, as a whole, facilitate job creation?	Direct impact	Creation of employment
Does the way the CRM materialise in job creation facilitate the creation of new jobs in beneficiary companies?	Direct impact	
What is the effect of the investment aid in the REF on the Canary Islands' production structure? Does it succeed in diversifying the Canary Islands' business fabric?	Indirect impact	Productive diversification of the Canary Islands' economic structure
To what extent do the investment aid in the REF incentivise research and development? Does the intensity of technological innovation boost?	Direct impact	Technology-intensive investment
To what extent does the investment aid in the REF improve the capitalisation of Canary Islands companies?	Direct impact	Improving the capitalisation of companies
To what extent does the REF improve the level of employment and growth in the Canary Islands? What are their sectoral impacts?	Indirect impact	Encouraging business investment

Source: own elaboration

It is important to note that these questions can be asked at the beginning of the period during which the reform takes place, i.e. ex ante, during the intervention (2019, for example) or at the end of the intervention, ex post. In fact, several assessments will be considered in paragraph 5 to be spread over the years covering the period.

Finally, in addition to four evaluations spread over the whole period, the plan contains a monitoring report in 2023 which will assess, among other things, the evolution of the indicators chosen to assess the impact of the whole plan.

4. Result indicators

4.1 *Please use the table below to describe the indicators to be developed to measure the results of the scheme, as well as the relevant control variables, including data sources, and as each indicator corresponds to the evaluation questions. In particular, mention: (a) the assessment question at stake, (b) the indicator, (c) the source of the data, (d) the frequency of data collection (e.g. annual, monthly, etc.), (e) the level at which the data is collected (e.g. at company, establishment, region level, etc.), (f) the population covered in the data source (e.g. aid beneficiaries, non-beneficiaries, all enterprises, etc.).*

The impact of the modification of the investment aid to the REF will be measured on the basis of different methodologies that relate to the type of impact to be quantified. To this end, a certain system of indicators is needed to enable not only the impact of the programme to be assessed but also to assist in its monitoring and evaluation.

In this respect, result indicators that allow quantifying programme impacts on the basis of the evaluation questions defined above, as well as the statistical source from which they can be obtained, are presented in Table 4.1. It should be noted that information about them may be obtained from administrative records, statistics published by official bodies, data on the management of the REF itself and statistics from the design of ad hoc surveys where it is not possible to obtain relevant information on the result variables of the intervention.

Table 4.1.1. Result indicators based on evaluation questions and their relation to the objectives of the programme.

Evaluation question	Indicator	Source	Frequency	Level	Population
Does investment aid, as a whole, facilitate job creation?	Number of jobs created	Administrative records of the tax administration (AEAT IS statistics and AEAT Model 190)	Annual	Company	All companies
Does the way the CRM materialise in job creation facilitate the creation of new jobs in beneficiary companies?	Number of jobs created in beneficiary enterprises	Administrative records of the tax administration (AEAT IS statistics and AEAT Model 190)	Annual	Company	Beneficiaries

What is the effect of the investment aid in the REF on the Canary Islands' production structure?	Number of enterprises under the different CNAE categorisation	Administrative records of the tax administration (AEAT IS statistics and AEAT Model 190)	Annual	Company	All companies
To what extent do the investment aid in the REF incentivise research and development? Does the intensity of technological innovation boost?	R & D expenditure in high-tech sectors Intensity of technological innovation (Expenditure on innovative activities/turnover x100)	Official bodies producing statistics (PITEC Data Panel or Statistics on R & D activities of the INE)	Annual	Company	Enterprises with more than 200 employees

Source: Produced in-house.

This selection of result indicators must be based on an analysis of the properties that they would be desirable to fulfil, being precise, unique and not repetitive. In this regard, the proposed indicators should be:

- ***Relevant** (reflect the degree of compliance with the operations and objectives of the REF).*
- ***Normative** (they have a clear and normative interpretation).*
- ***Robust (**reliable, statistically validated, where possible, based on internationally recognised standards and methodologies).*
- ***Cost (**the collection of information for the development of the indicators should be at cost that are correlated to the resources used for the evaluation).*

The assessment of the properties of the indicators proposed in Table 4.1.1 is presented below:

Table 4.1.2. Indicator properties

— Indicators	— Objective	— Relevance	Normativo	Robust	Cost
— Nr. of jobs created	— Creation public Employment Services	–	++[14]	–	+++	–	+++	– +	++
— Nr. of jobs created in the beneficiary companies	— Creation public Employment Services	–	+++	–	+++	–	+++	– +	++

[14] to assess the degree to which these properties are met is as follows: low (+), medium (+ +) and high (+ + +)

— Nr. or companies under the different CNAE categorisation	— Diversifies productive Cion of the Canary Islands' economic structure	—	++	—	+++	—	+++	– +	++
— Nr. or companies with innovative technological activities	— Investment technology-intensive	–	+++	–	+++	–	+++	– +	++
— Intensi anti-dumping duties of technological innovation (Expenditure on innovative activities/CIF business line	— Investment technology-intensive	–	+++	–	+++	–	+++	– +	++

Source: own elaboration

Overall, these result indicators have a high level of relevance. However, when the objective they accompany is not very specific and are measuring the indirect impact, it is more difficult to assume that when a measure is carried out, the value of the indicator will change as a result of public action. It should therefore be stressed once again that it is important not to limit the evaluation to the monitoring of indicators and to carry out impact assessments where, with one group of beneficiaries and another group that is not, the answer to the question "what would have happened in a specific result variable, such as investment induced in R & D, if the measure did not exist".

5. Envisaged methods to conduct the evaluation

5.1 Depending on the evaluation questions, please describe the methods to be used in the evaluation to determine the causal impact of the aid on beneficiaries and to assess other indirect effects. In particular, please explain why these methods have been chosen and others have been rejected (e.g. for reasons related to the design of the scheme)25

Report on the methods to be used in the evaluation to determine the causal impact of the aid.

In order to respond to the regulatory requirements for the evaluation and monitoring of the REF, it is proposed to draw up a monitoring report assessing the progress of each of the measures on the basis of the indicators set out in point 4. If the system of indicators does not make it possible to assess the causal impact of the aid, some method will be used to eliminate the selection bias between participants and non-participants, such as matching methods.

5.1.1 Assessment of the Canary Islands Investment Reserve in IS:

A counterfactual impact assessment (treatment and control group) will be carried out to determine the effectiveness of this tax benefit, assessing the extent to which the improvement in a company's profit or loss variables, as a percentage of own resources, is due to the application of the investment reserve, compared to the situation that those companies would have had if they did not use the CRP.

Possible evaluation design: considering the possibility of using this tax benefit strategically and sequentially for different periods by companies, it is proposed to use the Marginal ***Structural Models (MSM) method*** *to estimate the effect of the use of the Investment Reserve on the level of companies' own resources and, where possible, on different types of ICR materialisation, such as employment, assets or shares or other financial*

25 Please make reference to SWD (2014) 179 final of 28.5.2014.

instruments.

5.1.2 Assessment of Investment Deduction in the Canary Islands in IS:

A counterfactual impact assessment (treatment and control group) will be carried out to determine the effectiveness of this tax benefit, assessing the extent to which the improvement in the output variables of an enterprise, such as employment or turnover, is due to the application of the deduction for investments, compared to the situation where companies would not have used this tax benefit.

Possible evaluation design: considering the different intensity of the use of this deduction, which is much higher in the Canary Islands than in the rest of the tax territory, it is proposed to use the ***instrumental variables method****. The aim is to analyse how the use of the deduction affects (or not) the proposed result variables.*

5.1.3 Assessment of tax exemption for transfers of assets and documented legal acts:

A counterfactual impact assessment (treatment and control group) will be carried out to determine the effectiveness of this tax benefit, assessing the extent to which the improvement in the output variables of a company, such as tangible and intangible fixed assets, is due to the application of the tax exemption on transfers of assets and documented legal acts (ITPAJD), compared to the situation in which companies did not use this tax advantage.

Possible evaluation design: considering the different factors that influence the use of this tax benefit by an enterprise, it is proposed to use ***the difference in differences method alongside the matching or matching*** *method. The aim is to analyse how the use of the exemption affects (or not) the proposed results variables.*

5.1.4 Assessment of exemption from Canary Islands General Indirect Tax (IGIC):

A counterfactual impact assessment (treatment and control group) will be carried out to determine the effectiveness of this tax benefit, assessing the extent to which the improvement in the output variables of a company, such as tangible and intangible fixed assets, is due to the application of the exemption in the Canary Islands General Indirect Tax (IGIC), compared to the situation in which companies would not have used this tax advantage.

Possible evaluation design: considering the different factors that influence the use of this tax benefit by an enterprise, it is proposed to use ***the difference in differences method alongside the matching or matching*** *method. The aim is to analyse how the use of the deduction affects (or not) the proposed result variables.*

5.2 Please describe precisely the identification strategy for the evaluation of the causal impact of the aid and the assumptions on which the strategy relies upon. Please describe in detail the composition and the significance of the control group.

One of the most complicated aspects in carrying out an impact assessment is to choose an appropriate control group that is closest to the group of beneficiaries of the measure in order to be able to attribute to the measure the reason for the differences between the result variables that we will have between the two groups, such as the level of sales.

The method that ensures an ideal control group in order to be able to compare with the beneficiaries of the measure (s) is the one that has been randomly assigned before the public intervention. In other words, if a group of beneficiary companies were selected randomly, those that have not been selected would be a good counterfactual because the selection was random and significant differences between the two groups should not be expected.

In reality, it is difficult to have an experimental design and participation is linked to a bias that renders the two groups not comparable at the beginning. This bias may come from the administration itself, which determines the eligibility criteria for companies, or from the company itself, which may in some cases be excluded for various reasons.

In this case, the control group will be constructed by identifying the companies that have not benefited from the investment aid in the REF. In order to correctly apply the matching methodology, both samples

(beneficiary companies and beneficiaries) must be as similar as possible in terms of observablecharacteristics[26]. For thispurpose, companies shall be paired according to the value of their SMP. In other words, according to their likelihood of being beneficiaries of the REF.

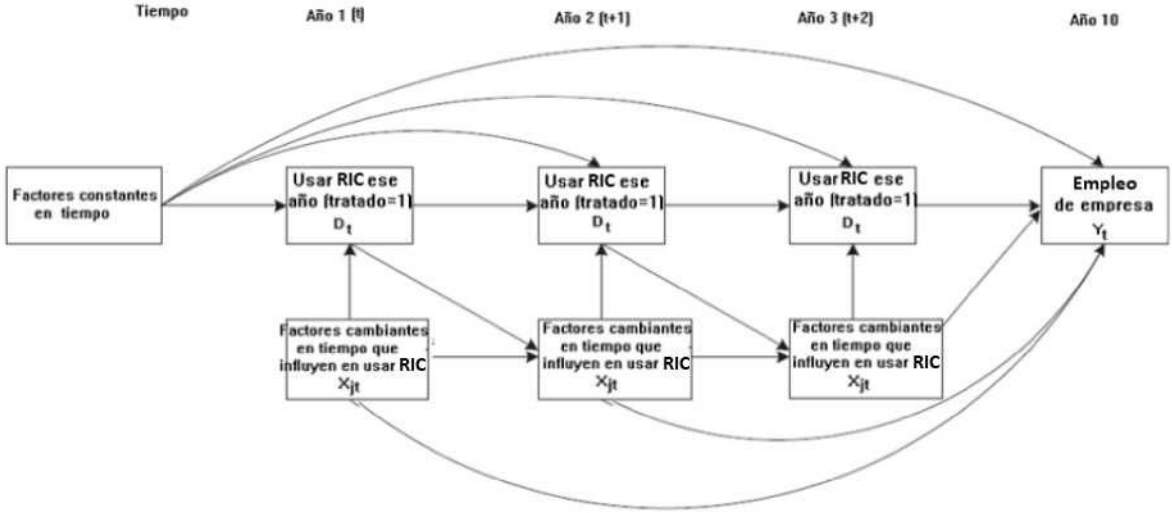
5.2.1 Assessment of the Canary Islands Investment Reserve in IS:

In view of the endogeneity problems arising from the use of the ICR by companies, it is proposed to use other characteristics of the company. The evaluation diagram is:

X (Characteristics) ■ M M D (participation, RIC use) Y (variable result)

Where X represents all the characteristics of the enterprise, such as the year of creation, sector of activity, accounting profit, if it belongs to a corporate group, etc.; D is the treatment variable, i.e. whether it uses the RIC; and the variable Y captures the company's employment, the company's own resources or the assets in which the investments materialise. As information is available for several years (we expect at least the period 2010 to 2023) it is possible for companies to be beneficiaries of the programme (using ICMs) at more than one point in time (t1, t2, t3,..., t10), which has serious implications in estimating correctly the impact of D on Y. By incorporating the possible correlation between the variables under analysis over several periods of time, the diagram best suited to this impact assessment is the figure below.

Figure 5.1: Dynamic treatment impact assessment diagram



Where X_j is a set of (variable) confounding factors that exist at time t (e.g. enterprise assets) and D_t is the treatment variable in year t, i.e. if the enterprise uses RIC at time t. As shown in the diagram in Figure 2, at time 2, X_{j2} is affected by exposure to programme D_1. For example, using the CRM at time '1' may influence the level of the company's assets in the following period, X_{j2}. At the same time, X_2 is a confusing factor that pollutes the relationship between D_2 and Y, that is to say, the level of assets may be related to the fact that it benefited from the tax advantage RIC (D_2), but also to the company's recruitment and employment (Y_2). In the traditional method that adjusts for observed variables, if conditioned in both D_1 and X_2, it is 'on adjustment' for a variable in the causal diagram, thus removing the variability associated with treatment over time. If it is not checked by X_2, we will ignore the potentially confusing bias, which leads to biased estimates of the impact of D on Y. Another important to bear in mind is that, with a longitudinal file of companies with annual information for the period 2010-2019, there may be a new selection bias, which occurs when companies disappear from the tax file of the AEAT from one year on. This is known as the problem of 'censorship' or 'statehood' of data, and has effects on the estimated parameters. On the one hand, there may be some characteristics of undertakings which make it more likely to disappear over time and therefore not a 'random loss'. In addition, only those companies that are in the information file for a long time can be beneficiaries of the programme more often. The Marginal Structural Models (MEM) (see Pearl, 1995, Greenland, Pearl and Robins, 1999, or Hernan and Robins, 2020) can be used to estimate the impact of a time-varying programme, which can also be considered endogenous over time and correct bias

26 Variables that can be found in the database

due to loss of individuals over time.

MMEs estimate the effect of the treatment on the output variable by weighting available observations against the inverse probability of treatment (IPTW). These models are estimated at three stages: in the first step, two probabilities are calculated. First, the probability that a company that actually used the CRM (D = 1), according to its observed characteristics (X), will be treated P (D = 1 | X), known as the propensity Score (PS). The probability is then obtained that information is not available for an enterprise in a given year and which disappears from the assessment experiment, i.e. that it is censored by the variable C = 1, according to the characteristics observed, P (C = 1 | X). In the second step, once these two probabilities are calculated, the weight function w_i is generated and each of the companies is weighted by the reverse of the two probabilities. This creates a 'pseudo-population', consisting of a series of 'w_i' which are replicates of each individual in the database. Enterprises that are less represented in the allocation to receive the programme (i.e. with a low probability of receiving treatment, P (D = 1) in the evaluation experiment) receive proportionally higher weights, while companies that are heavily represented for treatment have proportionally lower weights. This makes it possible to obtain a 'balanced' population that is comparable in terms of changing stability, time and confounding factors over time between levels of allocation to treatment (Hernán et al., 2004). It is treated in a similar way to individuals who disappear from the study over time, who have a probability of censorship P (C = 1). Combining these two weightings creates a comparable population, both in terms of stability, time and confounding factors, changing over time, and censorship. In the third phase, using this weighted 'pseudo-population', the causal link between being a beneficiary of programme D and result Y is estimated, eliminating the effect of confusion and censorship factors. By using the prior weighting to take into account confounding factors and data loss, biases due to time-changing confounding factors, which are on the route between the assessed programme and the outcome are eliminated (Rosenbaum and Rubin, 1983).

For the purposes of this assessment, only enterprises in the Canary Islands during the period 2010-2019 are considered, analysing the effect of the use of the CRP on different result variables (employment). Companies that use the CRP for one year are part of the treatment group, while those that do not use the CRP during the entire period formed the control group.

In addition, from the processing and result information, information on the characteristics of these companies over different years would be used to clean up the effects associated with selection biases in observed variables.

*5.2.2 **Assessment of Investment Deduction in the Canary Islands in IS:***

In view of the problems of endogeneity arising from the use of deduction by companies, it is proposed that the geographical location of the enterprise be used as an instrument, the evaluation diagram is:

Z (instrument) → D (participation, use deduction) → Y (result variable)

Where:

- *Instrument variable (Z): dicotomic variable which takes a value of 1 if the company is located in the Canary Islands and 0 if not.*
- *Participation variable (D): dicotomic variable taking the value 1 if the enterprise uses the deduction and 0 otherwise.*
- *Result variable (Y): result showing the effect of the measure analysed, employment, turnover, etc.*

The instrumental variables method is used to identify the impact of the deduction for investments in the Canary Islands. For example, for the deduction for research and development activities (Article 35.1 LIS), whereas in the regions of the mainland the deduction rates are generally 25 % of the expenditure incurred in the tax period, in the Canary Islands is 45 %. Therefore, two similar companies, one located in the Canary Islands, and the other in the mainland, the incentive to use this deduction in the Canary Islands (funding 45 %) is higher than in the mainland (only 25 %). The fact that a company is located in the Canary Islands or in the mainland before the entry of the deduction is the instrument we will consider in order to resolve the endogeneity of using the deduction. This instrument takes a value of 1 if the company is resident in the Canary Islands and 0 if not. The instrument does not relate to other characteristics of the company. To this end, the company must be located in the Canary Islands for years and not to use start-ups. In addition, Z is likely to influence an enterprise's use of the investment deduction (D = 1). Therefore, the proposed diagram

is verified.

A specific year, 2015 for example, is used for this analysis. Companies located in the Canary Islands (Z = 1) and in the rest of Spain (Z = 0) are used for the instrument. For this set of companies, information is obtained from those that use the deduction (D = 1) and those that do not (D = 0). Information on R & D investment will also be available, a profit or loss variable where the effect of using this deduction will be observed. In addition to these three variables, the analyses use additional information from companies, such as the sector of activity, their size, etc.

5.2.3 . Assessment of the tax exemption for transfers of assets and documented legal acts

When assessing the type of endogeneity presented by companies using this tax benefit, it is proposed to use the dif-in-dif method combined with matching techniques. Both approaches make it possible to resolve biases on both observed and unobserved variables. The evaluation diagram is:

X (Characteristics observed) -D (participation, use ITPAJD Exemption) Y (variable result)

U (Characteristics not observed) n.e.c.

Where:

- *Control variables (X): year of creation, economic activity (CNAE), company size (number of employees and turnover), etc.*
- *Unobserved variables (U): characteristics of companies for which no information is available and affect the use of the exemption (sensitivity of the employer, etc.)*
- *Participation variable (D): dicotomic variable taking the value 1 if the company uses the exemption in ITPAJD and 0 otherwise.*
- *Result variable (Y): result showing the effect of the measure analysed as companies' own resources and, if possible, on different types of materialisation of the exemption such as property, plant and equipment, intangible, etc.*

5.2.4 Assessment of exemption from Canary Islands General Indirect Tax (IGIC):

When assessing the type of endogeneity presented by companies using this tax benefit, it is proposed to use the dif-in-dif method combined with matching techniques. Both approaches make it possible to resolve biases on both observed and unobserved variables. The evaluation diagram is:

X (Characteristics observed) (participation, use of IGIC exemption) Y (variable result)

U (Characteristics not observed) n.e.c.

Where:

- *Control variables (X): year of creation, Economic activity (CNAE), company size (number of employees and turnover, etc.)*
- *Unobserved variables (U): characteristics of companies for which no information is available and affect the use of the exemption (sensitivity of the employer, etc.)*
- *Participation variable (D): dicotomic variable taking the value 1 if the company uses the exemption in ITPAJD and 0 otherwise.*

Result variable (Y): result showing the effect of the measure analysed as companies' own resources and, if possible, on different types of materialisation of the exemption such as property, plant and equipment, intangible, etc.

5.2.5 Adequacy and proportionality assessment of the Canary Islands REF

A rapid impact assessment will be used for this evaluation (for more details see Rowe, 2019). This qualitative methodology provides a structured way to collect an impact assessment of a programme, involving a range of stakeholders and experts to provide a balanced perspective on the impacts of the programme. Each stakeholder/expert assesses the results of the programme in relation to a counterfactual situation, consisting of an alternative design or programme situation, to analyse the impact of the programme in relation to

alternatives. Three different groups of individuals will be consulted:

a) *Programme stakeholders, who affect or are affected by the programme: programme beneficiaries, key decision makers, programme administrators, programme staff and implementing partners.*
b) *External experts in the field: researchers, academics, industry leaders and other persons with knowledge in a relevant field (can rely on a supply supplier, team manager/manager, etc.)*
c) *Technical advisors: Emeritus (or retired) professors from a university or a highly experienced person in the field of study.*

The evaluation will take place in three main steps:

1 – the evaluators develop a summary of the programme (Canary Islands REF) and an alternative programme (the counterfactual).

2 – the evaluation team develops a questionnaire which is answered by the members selected in the three groups. Their assessments of the impact of the intervention in relation to the impact of a scenario-based counterfactual are obtained. Each person in the three expert groups is asked to assess the effects of the REF and the effects of the counterfactual. In order to do so, they are asked to assess two elements: the likelihood of the intervention having the desired result and the magnitude of the effect on the output variable (employment, economic activity in the Canary Islands).

Question 1: probability: what is the probability that the result will occur?

Question 2: maximum range: what is, or will be, the size of the result if it occurs?

For responses, assessments can be used on a scale of 0 (very low) to 4 (very high).

3 – expert assessments are analysed, weighted and combined to generate an estimate of the overall impact of the programme. The average probability and magnitude assessment is calculated for each expert group and for the sub-group representing the interest of each stakeholder for programme stakeholders. The differential impact attributable to the programme evaluated by each expert group (the difference between the results of the programme and the counterfactual) is then obtained. It ends with the estimation of the overall impact for theprogression.

5.3 Please explain how the envisaged methods address potential selection bias. Can it be claimed with sufficient certainty that observed differences in the outcomes for the aid beneficiaries are due to the aid?

In order to avoid selection biases, the SMP methodology ensures that the companies benefiting from the REF are compared with other companies that have not been compared with companies with very similar observable characteristics. These observed variables are assumed to correlate with the impact of public support. Thus, if the effect of observable variables is controlled, the differences between the results of a beneficiary undertaking and its non-beneficiary partner will be the cause of the investment aid under the REF.

5.3.1 Assessment of the Canary Islands Investment Reserve in IS:

In order to carry out the effectiveness assessment, it is necessary to use impact assessment techniques using a treatment group (using the CRM) and a control group (not using the CRM), using only information from companies in the Canary Islands. For both groups, information on "outputs" and "results" is needed for the period 2010 to 2023. For "Products", you need to have information at company micro level and per year of the company identifier (anonymised), when I use the booking, the amount, as well as data related to the characteristics of the company as year of creation, CNAE, size, etc. For performance reporting, information on own resources by undertaking per year and, if possible, the breakdown of the materialisation of the reserve into different concepts is required: assets, employment, equity, etc.

The application of the MIM method, similar to matching methods, is valid when selection biases depend on observed variables. For this reason, it is important to have all the possible characteristics of companies that may influence the use of the CRP. In the case of bias in unobserved variables, the estimation of the impact was biased.

To solve this problem, the dif-in-dif method can be incorporated into the MSM approach to avoid biases in unobserved variables. As far as possible, and using information in the early years of the panel, an attempt should be made to compare the parallel path theory to give effect to the method of differences in differences.

5.3.2 Assessment of Investment Deduction in the Canary Islands in IS:

For the assessment of effectiveness it is necessary to use impact assessment techniques using a treatment group and a control group. When using the approach of variable instruments, it will be necessary to have information on 'Products (uses deduction)' and 'Results (R & D investment)' for both groups in the period 2010-2023 for companies located both in the Canary Islands and in the rest of the regions (instrument Z). For "products" it is necessary to have information at company micro level and by year of the company identifier (anonymised), when I use the deduction, the amount, as well as data related to the characteristics of the company such as the year of creation, CNAE, size, among others. For performance reporting, information per company per year on employees expenditure on R & D & I and turnover is required.

In order for the instrument variables methodology to function properly, it is important that the value of Z actually influences the value of D. i.e., in order to validate this approximation, the fact of Z = 1 (company in the Canary Islands) should significantly affect the use of the deduction (D = 1) because there is a higher degree of deduction. If this is not the case, then the instrument is not relevant to explain D's behaviour and this methodology will not be valid.

5.3.3 Assessment of exemption from tax on capital transfers and documented legal acts:

For the assessment of effectiveness it is necessary to use impact assessment techniques using a treatment group and a control group. Both groups require information on 'products' and 'results' for the period 2016-2020 for companies in the Canary Islands.

As regards "products", it is necessary to have information at 'micro' company level and per year of the company identifier (anonymised), when it used the exemption, the amount, as well as data related to the characteristics of the company such as the year of creation, CNAE, size, among others. Information per enterprise per year on fixed assets or number of establishments is required for profit or loss reporting.

With a data panel for the period 2016 to 2020, it is possible to apply, on the one hand, the method of differences in differences, which makes it possible to correct biases in variables not observed by the evaluator, and the use of matching techniques such as the propensity Score Matching, which allow the bias in the variables observed to be resolved. The combination of both methodologies can provide estimates of the impact of this very robust tax benefit.

5.3.4 Assessment of exemption from Canary Islands General Indirect Tax (IGIC):

For the assessment of effectiveness it is necessary to use impact assessment techniques using a treatment group and a control group. Both groups require information on 'products' and 'results' for the period 2016-2020 for companies in the Canary Islands.

For "products" it is necessary to have information at company micro level and by year of the company identifier (anonymised), when I use the exemption, the amount, as well as data related to the characteristics of the company such as the year of creation, CNAE, size, among others. Information per enterprise per year on fixed assets or number of establishments is required for profit or loss reporting.

With a data panel for the period 2016 to 2020, it is possible to apply, on the one hand, the method of differences in differences, which makes it possible to correct biases in variables not observed by the evaluator, and the use of matching techniques such as the propensity Score Matching, which allow the bias in the variables observed to be resolved. The combination of both methodologies can provide estimates of the impact of this very robust tax benefit.

5.3.5 Assessment of appropriateness and proportionality of the Canaries' REF

The main limitations of this methodology are that it is based on opinions and not on observed data, which may imply certain limits on the generation of evidence. It is also important that the evaluation team correctly identifies the relevant persons who need to reply to the questionnaire, and who provide added value.

5.4 If relevant, please explain how the envisaged methods intend to address specific challenges related to complex schemes, for example schemes that are implemented in a differentiated manner at regional level and schemes that use several aid instruments.

The empirical analysis will take these complex factors into account by producing independent estimates to corroborate the results in specific sub-samples, such as SMEs and large companies.

For the assessment of the indirect effects of the REF, the Input-Output Framework of the National Accounts provides a detailed description of the interdependence of sectors of an economy, as well as a methodology for measuring the indirect effects that the variation in a given variable and a particular sector has on other macroeconomic variables and other sectors of the economy. This methodology is based on the application of the so-called multipliers of the matrix of technical coefficients and the Leontief matrix of the Input-Output Table model. To the extent that the results of the direct impact assessment are significant in the result indicators, i.e. the REF identifies a statistically significant increase in employment or investment, a model based on the Input-Output Tables will be considered to measure the indirect effects of the REF on the different sectors of the economy.

The Input-Output framework of the National Accounts allows estimating the indirect effects of the REF on the different branches of an economy using the demand model or the price model. The estimation method of the demand model uses Leontief's matrix, whose coefficients represent the interrelationship between the different branches of the economy, to determine, given a change in the final demand of the branches, the amount that each branch must produce in order to meet this new final demand. Similarly, the price model serves to determine the variation 116.

in the prices of the different products of an economy due to a change in wages in the different branches of the economy. The great advantage of using the Input-Output framework lies in the fact that it makes it possible to consider in its models all the interlinkages between the branches of an economy. Therefore, to the extent that the estimation of direct effects gives information on the change in investment or employment by industry, these changes may be incorporated into demand and price models to determine their indirect effects on the output and prices of all sectors of the economy.

It should be noted that the reference year of the latest Input-Output table published by the Canary Islands Institute of Statistics is 2005 and that published by the INE, the geographical scope of which is all Spain, is 2016.

6. Collection of data

6.1 Report on the mechanisms and sources for the collectionand processing of data on aid beneficiaries and the counterfactualforecast27. Please provide a description of all the relevant information that relates to the selection phase: data collected on aid applicants, data submitted by applicants and selection outcomes. Please also explain any potential issue as regards data availability.

The data represent the basis for any evaluation and monitoring. The quality of the information will largely depend on the quality of the conclusions of the evaluation study. The REF Evaluation Plan will be based on administrative and survey data.

*The **administrative** data will come from the Canary Islands tax administration and the AEAT, such as model 190 or from IS (model 200) or also model 282, as well as from other sources:*

Information provided by the Tax Agency (AEAT):

The following variables for the period 2010-2020 of the Corporate Income Tax Model 200:

- *Province*
- *Assets, intangible assets, development, patents, research, intellectual property, property, plant and equipment, land and buildings, real estate investment, construction*
- *Current assets*
- *Total assets*
- *Equity, own funds, capital, reserves,*
- *Non-current liabilities*
- *Current liabilities*
- *Total equity and total liabilities*
- *Turnover: sales, personal expenses, operating result*
- *Reserve for investments in the Canary Islands,*
- *Deductions from ISL 24.1,*
- *Deductions to incentivise certain activities*
- *Canary Islands investment deductions*
- *Deductions excluded from R & D & I cap*

The following variables for the period 2010-2020 of Form 282, relating to aid declarations received under the Canary Islands' Economic and Tax Regime:

- *Year*
- *Volume of business*
- *Deduction for non-initial investments in the Canary Islands*
- *Reserve for Canaries Investments (RIC)*
- *Total amount of regional operating aid*

27Pleasenote that the assessment might require obtaining both historical data and data that will become progressively available during the deployment of the aid scheme. Please identify the sources for both types of information. Both types of data should preferably be collected from the same source as to guarantee consistency across time.

- *Investment incentives, Deduction for initial investments in Canaries*
- *Reserve for investments in the Canary Islands, total amount of regional investment aid*

With regard to the assessment of the exemption from the tax on transfers of assets and documented legal*acts, the information comes from the Canary Islands Tax Agency and the Canary Islands Statistics Institute.*

Information provided by the Canary Islands Tax Agency:

For taxable persons who applied the exemption under Article 25 of Law 19/1994 (code 251), the following variables in the period 2016-2021 of model60280.

- *Acquiring TIN*
- *Accrual year*
- *Type of property: text which may be immovable/other. If the tax advantage is obtained on the purchase of an in movable property of another type of property.*
- *Declared value of the purchased part: amount, value declared by the taxable person as the value of the part of the property he acquires. On the basis of which the tax advantage is calculated by applying the rate in force (6.5 %) to this value.*
- *Tax base: the amount, the value declared by the taxable person as the taxable amount of the part of the property he acquires, the tax advantage is calculated on it. Applying to this amount the rate in force (6.5 %). If no value is reported, the percentage (6.5 %) shall be applied to the declared value of the purchased part.*

Information provided by the Canary Islands Institute of Statistics

1 Micro-data from structural statistics on enterprises in industry, trade and market services. This statistical operation provides detailed information on the purchases, sales and investment of Canary Islands firms. With particular reference to the following two questions:

1. *It makes it possible to regionalise the material investment of multi-localised companies, i.e. companies operating in several Autonomous Communities.*
2. *It provides the following detail of the investment:*
    - *Land and natural assets*
    - *Existing buildings and structures*
    - *Constructions and renovations*
    - *Technical facilities*
    - *Machinery and tools*
    - *Transport elements*
    - *Other tangible assets*
    - *Software applications developed*
    - *Purchased IT applications*
    - *Concessions, patents, trademarks*
    - *Other intangible assets*
    - *Sales of property, plant and equipment*
    - *Sales of intangible assets*

With regard to the assessment of exemption from the Canary Islands' General Indirect Tax (IGIC)*, the information comes from the Canary Islands Tax Agency and the Canary Islands Statistics Institute:*

Information provided by the Canary Islands Tax Agency:

Data on the quota not paid shall be obtained pursuant to Article 25 of Law 19/1994 on the purified consolidation of:

1 Models 416 (Order of 10/11/2004 (BOC No 225, 19/11), amended by Order of 28/02/2006 (BOC No 57, 22/03), with reporting tax identification number, financial year, key (acquisition/delivery), tax identification number declared, brand whether it is operating on real estateor not, and the amount of the transaction. Only available from 2017 onwards. Data 2017 to 2021.

28Regulation*(EU) No 28/12/18 amending Form 600 on self-assessment of the tax on transfers of assets and documented legal acts (BOC No 6 of 10/01/19).*

- *File structure*
- *Reporting TIN: alphanumeric, contains the TIN of the beneficiary of the tax advantage if the key is acquisition.*
- *Year: date. Year in which the person subject benefits from the tax advantage.*
- *Key: alphanumeric with one of the securities (acquisition/delivery). Identifies whether the information refers to a supply where the beneficiary of the tax advantage is the declared TIN, or relates to an acquisition, where the aid beneficiary is the reporting TIN.*
- *TIN declared: alphanumeric, contains the TIN of the beneficiary of the tax advantage if the key is a delivery.*
- *Make of real estate transaction: Yes/NO. Relet if it is a real estate operation or not.*
- *Transaction amount. Numerical. This is the amount to which the rate of 7 % should be applied, unless the financial year was 2019, which would be 6.5 %.*

2 Of the Single Administrative Documents (SADs) for release for consumption and only for those in which the exemption key was entered in the IGIC pursuant to Article 25 of Law 19/1994, the declarant's tax identification number, financial year and customs value. Data from 2016 to 2021.

- *File structure*
- *TIN of the declarant: alphanumeric, contains the TIN of the beneficiary of the tax advantage*
- *Year: date. Year in which the person subject benefits from the tax advantage.*
- *Customs value of the goods: amount. The value on which the rate of 7 % (6.5 % in 2019) has to be applied in order to obtain the tax advantage.*

3 — Records of invoices issued and received from the immediate SII Information System, on those in which Article 25 transaction has been identified. For LRFE: Counterparty TIN, invoice amount, reporting period. And those of the LRFR: holder, financial year, total amount, taxable amount. Data since the entry into operation of the IMS. Data for 2019-2021.

The IGIC data as they come from various sources, and some assume that the same data is included, it is necessary to clean them earlier, in order to avoid duplication. The best purification can be carried out by taking the highest figure for each subject.

File structure:

- *TIN of the book holder: alphanumeric, contains the TIN of the beneficiary of the tax advantage if the book type is LRFR*
- *Counterparty TIN: alphanumeric, contains the TIN of the beneficiary of the tax advantage if the book type is LRFE*
- *Type of book: alphabetic (LRFE/LRFR)*
- *Date of operation: date. Date on which the transaction takes place.*
- *Invoice issue date: year in which the person subject benefits from the tax advantage.*
- *Total amount: amount. Value to which the rate of 7 % should be applied (6.5 % in 2019) to obtain the tax advantage. If there is a charge passed on, it would have to be subtracted.*
- *Share passed on: amount. Amount of tax passed on.*

Information provided by the Canary Islands Institute of Statistics

1 Micro-data from structural statistics on enterprises in industry, trade and market services. This statistical operation provides detailed information on the purchases, sales and investment of Canary Islands firms. With particular reference to the following two questions:

1. *It makes it possible to regionalise the material investment of multi-localised companies, i.e. companies operating in several Autonomous Communities.*
2. *It provides the following detail of the investment:*
    - *Land and natural assets*
    - *Existing buildings and structures*
    - *Constructions and renovations*
    - *Technical facilities*
    - *Machinery and tools*
    - *Transport elements*
    - *Other tangible assets*
    - *Software applications developed*
    - *Purchased IT applications*

- *Concessions, patents, trademarks*
- *Other intangible assets*
- *Sales of property, plant and equipment*
- *Sales of intangible assets*

Data from the following surveys shall be used:

- Βυσινεσσ Ινναϖατιον *Survey (EIT). It is based on a representative selection of companies, which makes it possible to record repeated observations over time of the economic units included.*

The Business Innovation Survey is an annual survey, with information available for the period 2006-2020, information on the following variables is available for each year of the survey:

- *Company classification*
- *Part of an enterprise group*
- *Year of start of activity*
- *Is located in a technology or science park*
- *Has carried out general activities in the year (purchase of machinery, marketing, training) staff, etc.)*
- *Average number of employees*
- *Internal R & D activities in the year*
- *Staff engaged in internal R & D activities by occupation and geographical distribution.*
- *Financing and distribution of R & D expenditure in the year*
- *Purchase of R & D (external)*
- *Product and process innovation in the last 2 years*
- *Innovative activities*
- *Expenditure on innovative activities and staff employed in these innovative activities*
- *Funding in the period*

- Της *Canary Islands Institute of Statistics (ISTAC) makes available the Industrial Business Survey and the Input Tables of the Canary Islands' economy.*

Databases can be merged with each other on the basis of the relevant identifiers (as is the case for companies), following the procedure described in paragraph 6.3.

With regard to the relevant information at the selection stage, both for the beneficiaries of the aid and for the control group, we will classify the necessary variables into three main groups:

- *Impacts of interest (result indicators): these are variables capable of quantifying the impact of the reform on the different objectives of the reform, such as job creation, productive diversification, investments in West Africa and technology-intensive investments:*
  - *Number of jobs created*
  - *Number of jobs created in beneficiary enterprises*
  - *Number of enterprises under the different CNAE categorisation*
  - *Number of enterprises with innovative technological activities*
  - *Share of innovative enterprises by industry*
  - *R & D expenditure in high-tech sectors*
  - *Intensity of technological innovation (Expenditure on innovative activities/turnover x100)*

- *Potential controls: information on exogenous factors or envelopes other characteristics that may affect the outcome of interest. The inclusion of additional control variables or analysis of the heterogeneity of programme effects depending on certain characteristics allows for a more accurate estimation of treatment effects. Examples include:*
  - *In relation to the undertaking:*
    - *Size of enterprise (micro, SMEs and large enterprises)*
    - *Sector (classification CNAE-2009)*
    - *Location of the seat (municipality)*
    - *Production destination market (local, national, EU, international)*
  - *In relation to individuals:*
    - *Age*
    - *Sex*
    - *Work experience*

- *Educational level (CNED 2014 classification)*

Finally, there are a number of difficulties that may hinder the collection of data. First, the period of operation of the new REF runs from 2015 to 2023, so particular attention will be needed to the continuity of the series as well as to possible methodological changes affecting them. Moreover, the cross-checking of statistical information between many of the surveys with anonymised files may be a slow process by thebodyproducing or statistics and not always possible, depending on the law on the basic statistical function[29] governingstatistical confidentiality. Finally, and under some surveys at national level, it may happen that the sample observations at the level of the Canary Islands are not representative of the population in the Canary Islands.

6.2 Please provide information on the frequency of the data collection relevant for the evaluation. Are observations available on a sufficiently disaggregated level, that is to say at the level of individual undertakings?

In general, the frequency of data collection will be annual and observations will be available at microdata level whenever the administrative record or survey in question allows it.

6.3 Please indicate whether the access to the necessary data for conducting the evaluation might be hindered by laws and regulations governing confidentiality of data and how those issues would be addressed. Please mention possible other challenges related to data collection and how they would be overcome.

Chapter 3 of the Law on the Public Statistics Function lays down the rules protecting statistical confidentiality and states that 'statistical confidentiality requires statistical services not to disseminate personal data from any source whatsoever'. The Spanish legislation also contains rulesonthe protection of personal data and the security of the media in which they arestored[30](Organic Law on Data Protection and National Security Framework, among others). In some cases, the protection of confidentiality requires even not to publish highly disaggregated information in order to avoid the possible identification of the reporting person.

In any event, Article 21 of the Law on the Statistical Public Service states that 'the statistical services may provide upon request: (b) Individual data which are not covered by statistical confidentiality because they have become anonymous to such an extent that it is impossible to identify the reporting units.' In order to access microdata files, it willbenecessary, in some cases, to complete a request form for access to these files for scientificpurposes[31].

When personal data are processed in the context of evaluations, EU legislation on the protection of personal data, in particular Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and its national implementing measures, as well as Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data, shall apply.

The initial plan to integrate databases is to have a microdata file, which is completely anonymised, but has sufficient level of disaggregation, detail and granularity to perform robust and consistent analyses. To this end, we propose a data integration mechanism that can comply with these requirements. In the case of integrating data from the AEAT (companies, with their tax information) and the Innovation Survey (with R & D information), the following steps can be applied:

Step 1: the INE sends only the variable of the TIN, tax identifiers of the companies of the Innovation Survey, to the AEAT.

Step 2: the AEAT crosses that TIN with its databases and determines the individuals of the control group and the treatment group.

Step 3: the AEAT generates an anonymised TIN for the entire database it sends to the INE next to the true

29 Law 12/1989 of 9 May 2015 on the Public Statistical Function.
30 Including tax data
31 It is available on the website of the INE, in the section on bespoke information and special files.

TIN.

Step 4: the INE sends the Innovation Database with the anonymised TIN to the IEF and the AEAT sends the database with this anonymised TIN but allows the cross-checking of data.

This process prevents the IEF from identifying the companies involved in the assessment. The problem of this approximation is that, since the Innovation Survey does not have the entire population of enterprises, when cross-checking the databases, the business file in the Canary Islands is not large enough and we have problems with statistical power.

6.4 Please indicate whether surveys of aid beneficiaries or of other undertakings are foreseen and whether complementary sources of information are intended to be used.

In order to carry out the qualitative impact assessment, it is proposed that a small questionnaire be sent to various relevant policy actors.

7. Proposed timeline of the evaluation

7.1 Please indicate the proposed timeline of the evaluation, including milestones for data collection, interim reports and involvement of stakeholders. If relevant, please provide an annex detailing the proposed timeline.

Table 7.1. Proposed evaluations

— ASSESSMENT	— Timetable (including milestones in data collection)
— Report from monitoring of result indicators — Final report	- A report is proposed to besubmitted by November 2023 for which can be taken into account in the negotiation of the extension for the period 2024-2027 — To be delivered at the end of the 2015-2023 period when they are processed and analysed the data for 2023: expected December 2024

Source: own elaboration

7.2 Please indicate the date by which the final evaluation report will be submitted to the Commission.

Table. 7.2. Dates for submission of evaluations

ASSESSMENT	Date of delivery to the Commission
Monitoring report result indicators	November 2023
Preparation of final report	December 2024

Source: own elaboration

7.3 Please mention factors that might affect the envisaged timeline.

Problems in accessing data because the information provider is not willing to deliver the data.

8. The body conducting the evaluation

8.1 Please provide specific information on the body conducting the evaluation or, if not yet selected, on the timeline, procedure and criteria for its selection.

The body which will coordinate and carry out the evaluations presented in this evaluation plan will be the Institute for Tax Studies, with the collaboration of the Canary Islands Institute of Statistics. It will also have the necessary cooperation from the State Tax Administration Agency, the Directorate-General for Taxation, the National Statistical Institute and the Autonomous Community of the Canary Islands (under the coordination of the Ministry of Finance, Budget and European Affairs of the Government of the Canary Islands).

8.2 Report on the independence of the body that will carry out the assessment, how potential conflicts of interest will be avoided or how they will be ensured in the selection process.

The Institute for Fiscal Studies is an autonomous body, which means having its own Directorate-General, as well as an autonomous budgetary system and assets. It can therefore be said that it is a body which, although public and integrated into the General State Administration, enjoys functional independence. Therefore, it has no interest in the results of the evaluation.

8.3 Please indicate the relevant experience and skills of the body conducting the evaluation or how those skills will be ensured during the selection process.

The IEF is an autologous bodyor a body32attached to the Ministry of Finance and the Civil Service through the State Secretariat for Out a33, of recognised standing at both national and international level. Since 1960 it has played an important intellectual role in the field of research, study and advice in the tax, financial and tax areas. Its main purpose is advice in decision-making processes and the assessment of public finance scenarios for fiscal policy-making. Its overall institutional mission focuses on two main areas: research and training.

On the one hand, ***the Research*** *Area is intended to study and provide economic and legal advice on matters relating to public revenue and expenditure and its impact on the economic and social system, as well as the analysis and exploitation of tax statistics. It is addressed to the Ministry of Finance and Public Administration, other Ministries and other institutions. This department has officials from different administrations, giving it a heterogeneous profile when dealing with different research projects.*

The Training Area *is responsible****,*** *inter alia****,*** *for cooperation with other national and international institutions on training and technical assistance in the tax and financial fields. Its recipients are both staff of the various public administrations, as well as individual researchers and staff from other international administrations.*

As part of its EIF training activities, it highlights the availability of a ***virtual campus****, which makes it possible to develop and maintain the training of permanent workers and to offer distance courses.*

The Institute for Tax Studies also has access to a ***stock of external researchers*** *as a result of its assigned tasks such as the promotion and dissemination of research and studies related to the public economy. To this end, the Institute finances research that forms part of its priority work in the areas of tax studies, budgetary and public expenditure studies and financial and tax law.* ***This allows it to make proposals from external evaluators in each field as quality control of the work carried out****.*

Some of the key projects being implemented by the ENI are detailed below:

Experience of the IEF in assessing tax benefits

The Resolution of 16 April 2021 of the Director-General of the Institute for Tax Studies established a working group for the assessment of tax benefits, to respond to Reform 2 of Component 28 of Spain's Recovery, Transformation and Resilience Plan (PRTR), which consists of the analysis of 15 tax benefits to be realised over the years 2021 to 2022. This working group consists of the Institute of Tax Studies, the State Tax Administration Agency, the Directorate-General for Taxation and the Cabinet of the State Secretariat for Finance.

Experience of the IEF in assessing tax reforms based on microsimulation models

*The Institute for Tax Studies counts as one of its priority projects the design, development and implementation of 34****tax and public expenditure microsimulation*** *tools. These microsimulators require the maintenance and updating of the bases from which they are built, as well as the incorporation of regulatory changes. The idea behind micro-simulators is to 'simulate' a scenario of contributor or benefit recipients characterised on the basis of disaggregated data (microdata), making it possible to compare the actual situation with any other invented scenario which, once defined, makes it possible to subject the actors studied to the new circumstances in order to see what the consequences of the alternative situation would be. These tools are essential for proper decision-making by the public sector.*

The simulators developed or in process are as follows:

- *Personal Income Tax Simulator (personal income tax).*

32 Law 14/2000 of 29 December 2003 on fiscal, administrative and social measures
It33 has its own statute, approved by Royal Decree 63/2001 of 26 January 2015 (Official State Gazette of 27 January)
34 HTTP://www. ief.es/destacados/microsimuladores.aspx

- *Heritage Tax Simulator (IP).*
- *Corporate Income Tax Simulator for Small and Medium-sized Enterprises (IS).*
- *Simulator of Value Added Tax and Excise (VAT and IIEE).*
- *Local Funding System Simulator.*
- *Simulation model calculating VAT tax benefits.*
- *EUROMOD (tax-benefit microsimulation model of taxes and benefits) for the European Union, which makes it possible to calculate, in a comparable way, the effects on family incomes and employment incentives of changes in taxes.*

The experience of the IEF in evaluating cohesion policy and international cooperation programmes

The Institute for Tax Studies identifies ***public policy evaluation as a priority line of*** *interest, and has been mainly involved in the programming and evaluation tasks, in the following work, which we will now detail:*

- ***Evaluation of Community Funds****.*
    - *Planning of the 2014-2020 evaluation period of ERDF funds.*
    - *Evaluation of the impact of ERDF funds on water distribution. Period 2003-2010. (Counterfactual)*
    - *Assessment of the impact of ERDF funds on the quality of waste water treatment. Period 2003-2010. (Counterfactual)*
    - *Assessment of the impact of Community funds on R & D + the profit and loss account and other accounting items of Spanish companies. Period 2003-2010. (Counterfactual)*
    - *Development of the ex-ante evaluation of the Association Agreement for the period 20142020.*
- *Impact assessment of changing the energy mix in Spain towards a model with more renewable energies*
- *Impact assessment of Agenda 21 (Nils Science and Sustainability project*
- *Evaluation of public policies in Latin America (EUROSOCIAL II project*

The experience of the IEF in developing tools for measuring public opinion

The tax barometer of the Institute for Tax Studies aims at measuring tax opinion, its evolution over time and basic tax attitudes on the part of taxpayers. It is based on the application of quantitative techniques (mainly surveys and simulation surveys), qualitative techniques (including interviews and focus groups), other techniques of content analysis and statistical data analysis. It is thus a basic tool for the decision-making of tax authorities in the public sector.

8.4 Please indicate which arrangements the granting authority will make to manage and monitor the conduct of the evaluation.

The evaluations will be carried forward by the Institute for Tax Studies and the Canary Islands Statistical Institute with the necessary external collaboration.

8.5 Please provide information, even if only of an indicative nature, on the necessary human and financial resources that will be made available for carrying out the evaluation.

The team

The Institute's status as a public body and its research and teaching function give the proposed work team

specific characteristics:

- *It is a team of **experienced people with low turnover rates,** who have developed their career on a stable basis within this Research Institute or other public bodies with similar characteristics.*

- *Because of its public nature, the recruitment of staff to the Institute **is not governed by economic criteria** but by criteria of **academic or research excellence,** without taking into account the **need to make** the knowledge of individuals profitable in terms of economic performance. This enables staff of the institution to dedicate time to advanced training courses, seminars, and research, resulting in a team with a high level of training and refresher training.*

- *Due to the **teaching nature** of the Institute, its staff are continuously in the process of training and updating knowledge.*

The team proposed to develop the evaluations contained in this plan consists of 7 staff (one project manager, three senior and three junior) with different profiles (legal training and

quantitative and evaluation specialists) covering SEH action areas for the REF.

As mentioned above, the IEF has access to an external research pool ***which ensures the availability of a collaboration mechanism with expert evaluators (at least*** *two per study) covering all areas of action as a mechanism for quality control of the* ***work.***

Cost of the proposal

Table 8.7. Estimated cost of evaluations

ASSESSMENT	COST
Monitoring reports of result indicators	EUR 15,000
Final report	EUR 25,000
TOTAL	EUR 40,000

9. Publicity of the evaluation

9.1 Please provide information on the way the evaluation will be made public, that is to say, through the publication of the evaluation plan and the final evaluation report on a website.

The dissemination and publicity of an evaluation is one of the most relevant aspects explaining its substance. Limiting evaluations to the technical domain loses the prospect of what it was developed for. The relevant institutions, civil society, networks of experts, external partners, the media and the general public should be aware of the results of each evaluation and in particular of the plan presented in this document, in order to be able to make comments and comments that improve the design of public intervention.

The dissemination of an evaluation makes it possible to pass on the most important recommendations of the evaluation to the key actors involved in the evaluation, to be accountable to the relevant authorities and institutions and to develop knowledge within sectoral and regional experts.

The evaluation report shall be disseminated on the Internet so that it is accessible to the general public. In this connection, a temporary link will be opened at the headquarters of the Institute for Tax Studies for the contributions to be made available.

If the data used for the evaluation is of a personal or confidential nature, confidentiality must be ensured throughout the process, in accordance with Articles 8, 16 and 17 of the EU Charter of Fundamental Rights. However, confidentiality does not affect the results of the evaluation. In particular, if any, no confidentiality clause shall be included in the contract relating to the evaluation, except: (1) confidentiality obligations applicable to 127

personal or confidential data; (2) obligations linked to compliance with national statistical regulations and statistical confidentiality, such as those relating to the presentation of results.

For the purposes of reproduction or further studies, the data collected during the evaluation shall be accessible under conditions no stricter than those imposed on the body carrying out the initial assessment.

Relevant stakeholders shall be appropriately involved and consulted at least once during the implementation of the evaluation plan.

9.2 Please indicate how the involvement of stakeholders will be ensured. Please indicate whether the organisation of public consultations or events related to the evaluation is envisaged.

For stakeholder intervention, a public consultation shall be carried out as regards the evaluation plan.

9.3 Please specify how the evaluation results are intended to be used by the granting authority and other bodies, for example for the design of successors of the scheme or for similar schemes.

They shall be taken into account for the negotiation of subsequent periods.

9.4 Please indicate whether and under which conditions data collected for the purpose or used for the evaluation will be made accessible for further studies and analysis.

Yes, compliance with transparency.

9.5 Please indicate whether the evaluation plan contains confidential information that should not be disclosed by the Commission.

There is no confidential information.

• *10. Other information*

10.1 Please indicate here any other information you consider relevant for the assessment of the evaluation plan.

10.2 Please list all documents attached to the notification and provide paper copies or direct internet links to the documents concerned.

ANNEX I

Ultra-peripheral costs and financing model

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Canary Islands: an overview. *Regional Studies magazine*, 90, 17-44. http://www.revistaestudiosregionales.com/documentos/articulos/pdf1149.pdf.

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Macroeconomic impact

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Assessment of the Canary Islands Investment Reserve

Blázquez Santana, F. (2006). The Canary Islands Investment Reserve (RIC) as a factor for business growth: conceptual aspects and descriptive analysis of the sample (I). *Canaria Treasury*, 15, i5-77. https://www3.gobiernodecanarias.org/tributos/atc/estatico/info_tributaria/revista/Revista15/RevistaHC_15_1.pdf.

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Annex 1: Literature review. Main studies on the impact of the REF

MAIN STUDIES ON THE IMPACT OF THE CANARY ISLANDS' ECONOMIC AND TAX SYSTEM							
Title	**Authors**	**Scope of analysis**	**Objectives**	**Methodology**	**Data**	**Period analysed**	**Main results**
The costs of the outermost regions of the Canary Islands economy	Centre for Economic Studies Tomillo (2002)	Ultra-peripheral costs	Identification and quantification of the economic costs arising from the outermost regions and double insularity of the Canary Islands archipelago	Microeconomic and quantitative approximation based on the exploitation of the results of a survey of Canary Islands enterprises	Tables Input/Output (ISTAC and INE), Industrial Survey of Enterprises (INE), DIRCE (INE), Fiscal and Societary Accounts (IEF and AEAT) and ad hoc survey of Canary Islands entrepreneurs	2002	The existence of costs arising from insularity and the outermost regions. Particular intensity of transport costs, human resources, business travel and certain business services
Quantification of the costs of the outermost regions in the Canary Islands	Centre for Economic Studies Tomillo (2010)	Ultra-peripheral costs	Identification and quantification of the economic costs arising from the outermost regions and double insularity of the Canary Islands archipelago	Microeconomic and quantitative approximation based on the exploitation of the results of a survey of Canary Islands enterprises	Canary Islands Business Survey, Regional Accounts of Spain, Survey of Active Population (LFS), Industrial Survey of Enterprises (INE), Structure Survey of the Industry of the Construction, Annual Trade Survey, Annual Services Survey, Annual Labour Cost Survey	2008	The existence of costs arising from insularity and the outermost regions. Particular intensity of transport costs, business trips, differential stocks, multiple facilities, idle productive capacity, water and energy
Outermost regions, economy and public finances of the Canary Islands: an overview	Fernández Llera, R. and Lago Peñas, S. (2011)	Outermost periphery and financing system	Provide a sufficient basis for reflection on the correspondence between the quantities of tax advantages and the amount of refundable cost overruns	Literature review and descriptive analysis of the financial consequences of the Canary Islands REF	Data on financing and expenditure of the Canary Islands' territorial administrations, deficit and debt, tax burden and difference, fiscal balances and balances	1996-2009	The data available are not sufficient to determine precisely and justify the amount of compensation to be paid to the Canary Islands. There seems to be no correlation between the tax cost of the advantages enjoyed by the territory and their effectiveness in terms of development. Need to carry out cost effectiveness analyses of the REF and rethink the status quo

Macro-economic effects of incentives under the Canary Islands' Economic and Tax Regime in the period1994	Sosvilla Rivero, S., Martínez Budria, E., Navarro Ibáñez, M. (2006)	Macroeconomic impact of the REF	Impact assessment of Articles 25 (investment incentives), 26 (special scheme for companies producing tangible goods) and 27 (reserve for investments in the Canary Islands) of the REF on the main macroeconomic variables of the archipelago for the periods 1994-2004 and 19942013	Adaptation to the Canary Islands' economy of the macroeconometric or contrasting model (HERMIN)	Spanish Regional Accounts (INE) supplemented by data from the Canary Islands Regional Accounts (CORECA). Other IGAE data and Foundation BBVA-IVIE	1994-2013	Positive effects of the economic and fiscal incentives in the REF on the following variables: real gross value added, real income per inhabitant, employment, unemployment rate and inflation. Under the REF scenario, the Canary Islands' economy would have grown at a cumulative rate of 3.63 % over the period 1994-2004, compared with 3.43 % in the absence of the fiscal and economic stimulus associated with the REF. Average increase of EUR 262 in real income per inhabitant in the Canary Islands and an average increase of 8467 jobs (reduction in the unemployment rate of 0,12 percentage points).
The Canary Islands' tax economic system and its macro-economic effects	Díaz Hernández, J. J., González Marrero, R., Lorente de las Casas, A., Martínez Budria, E., Navarro Ibáñez, M., Ramos Real, F. (2007)	Macroeconomic impact of the REF	Impact assessment of Articles 25 (investment incentives), 26 (special scheme for companies producing tangible goods) and 27 (reserve for investments in the Canary Islands) of the REF on the main macroeconomic variables of the archipelago (REF in force between 1972 and 2006)	Adaptation to the Canary Islands' economy of the macroeconometric or contrasting model (HERMIN)	Spanish Regional Accounts (INE) supplemented by data from the Canary Islands Regional Accounts (CORECA). Other IGAE data and Foundation BBVA-IVIE	1994-2004	Positive effects of the economic and fiscal incentives in the REF on the following variables: real gross value added, real income per inhabitant, unemployment rate and inflation
Effect of the tax incentives of the Canary Islands Investment Reserve on Business Investment	Villar García, A. (2004)	Assessment of the CRP	Assessment of the effects of the RIC tax incentive on the cost of capital and business investment in the Canary Islands	King- Fullerton investment model	DIRCE, INE, Balance Sheet Division of the Bank of Spain, SABI	1996-2001	Reduction of the cost of capital for companies in the Archipelago and an increase in investment items. Cost of capital is significantly lower for Canary Islands firms than for their counterparts in the rest of Spain. The financing of Canary Islands companies differs from those in the rest of Spain. Debt reduction by increasing financing via profit retention (RIC)
The Canary Islands Investment Reserve (RIC) as a factor for business growth: conceptual aspects and descriptive analysis of the sample (I) and Approach	Blázquez Santana, F. (2006)	Assessment of the CRP	Empirical analysis of the impact of the ICR, both on the growth process of companies operating in the Canary Islands and on the main economic and financial variables	Regresion model with predictive or explanatory utility	The Balances Centre of the University of the Palmas de Gran Canaria, Central Balance Sheets of the University of La Laguna and Commercial Registers of the Canary Islands. Base	1994-2002	Importance of the ICM in the effective growth of Canary Islands SMEs, enabling the various objectives attributable to it to be achieved, such as stimulating private investment, improving business competitiveness, creating jobs and social cohesion

and counterfactual (II)					SABI (Iberian Balance Analysis Systems) data		
RIC and business or business	Dorta Velázquez, J. A., Correa Rodríguez (2007)	Assessment of the CRP	Impact of the ICR on job creation, investment growth and the renewal of productive infrastructure and contribution to business diversification and its impact on economic and/or business behaviour	Descriptive analysis and operation of a survey of advisors and auditors	Central Balances, University of Las Palmas de Gran Canaria, Central de Balance sheets of the University of Laguna and Commercial registers in the Canary Islands. SABI database (Analysis Systems of Iberian balances)	1994-2002	Positive effects of ICR on business profitability and job creation. There is no evidence of the impact on changes in production structure or the environment.
Tax incentives and environment. Opinion of the Canary Islands companies in the secondary sector	Déniz Mayor, J.; Verona Martel, M.C. (2009)	Assessment of the environmental effects of the CRM	Analyse, in view of its specific nature, the justification for the Reserve for investments in the Canary Islands as an instrument for environmental protection and reflecting on the environmental impact of the ICM	Opinion polls among senior staff in the secondary sector in the Canary Islands Archipelago	SABI (Iberian Balance Analysis Systems) database	2008	16.40 % of respondents strongly agree or strongly agree that the CRP has generally contributed to environmental improvement and protection, while 50 % consider that current legislation does not take account of the fact that certain investments under ICR cause damage to the environment.
The issue of the IGIC on import and export	Blasco Arias, L. M. (2014)	Effects of IGIC on Canary Islands imports and exports	It examines the problem caused by 'Customs' in the Canary Islands and the subsequent management of the IGIC's taxable events for exports and imports.	Qualitative analysis	—	2014	The author concluded that it would be more favourable for the Canary Islands' foreign trade to replace the IGIC with three alternatives: the use of Community VAT, but acknowledging the unique nature of the Canary Islands as ORs, relaxing customs requirements; adopt a foral regime similar to the Basque and Navarre, where customs would be eliminated but a favourable tax regime would be maintained; Intra-Community IGIC
Determinants of the Canary Islands SME financial policy: an analysis with panel data	Medina Hernández, U., Pérez Monteverde, M.V. and Rodríguez Sanz, J. A. (2009)	Assessment of the CRM on SME indebtedness and dividend distribution	A comparison of several assumptions concerning the indebtedness and dividend distribution of small and medium-sized enterprises in the Canary Islands, emphasising the effect of the Canary Islands Investment Reserve on this.	Estimation using MGM and Tobit models with random effects using panel data	Central Balance Sheet, University of La Laguna and SABI (Iberian Balance Analysis System)	2009	The negative relationship between the use of the CRM and the level of corporate indebtedness, because this reserve favours the use of own resources and investment in tangible assets for the company itself; negative relationship between the use of the ICR and the distribution of dividends as dividends are lower in companies that retain greater internal resources

Canary Islands within the legal framework of the European Union. Tax incentives for the Canary Islands on Spanish corporate tax in the light of the process of Community harmonisation	González Lorente, Á. (2003)	Assessment of the ICD and CID	Analysis of the impact of the ICR and the deduction for investments on the level of tax burden in the Canary Islands.	Analysis of taxable bases and personal income tax and corporate income tax.	'Tax on Companies. Canary Islands 199297' of Canary Islands Institute of Statistics (ISTAC) and BADESPE of the Institute of Tax studies (IEF)	1992-1997	Tax incentives increased the tax differential from 2,52 to 4,93 percentage points compared to Spain as a whole
Study on the private cost of the outermost regions and double insularity in the Canary Islands	ECO ATENEA, S.L.- CONSULTANT RELAUNCHES, S.L. – EUROPE PROJECTS CONSULTATION And INNOVATION, S.L. (Temporary Union of Undertakings "UTE Eco-CoRe")	Ultra-peripheral costs	Quantification of the additional costs arising from the outermost regions and double insularity of the Canary Islands archipelago in eight economic sectors	Qualitative analysis, through interviews with questionnaire of management staff and business organisations in the Canary Islands, from different sectors. And quantitative analysis, by analysing the Canary Islands' production structure and intermediate costs	Ad hoc surveys in 2018 of 2.805 companies and business organisations in the Canary Islands and Tables Input/Output (ISTAC and INE) (updated to year 2016)	2016	The average extra costs of the outermost regions accounted for 8 % of turnover, more than half represents the extra cost of freight transport (which increases its weight over the situation in 2008), the additional costs for idle production capacity and multiple facilities remain (quantitatively). From a sectoral point of view, they account for around 30 % of industrial turnover. They follow the primary sector (18 % of turnover) and trade (10.5 %). Broken down by islands, they are larger in the western islands where they account for 10 % of island turnover. And by company size are larger in micro enterprises (11.3 % of their turnover) than for large companies (4.8 %).

Source: own elaboration