

Evaluation of the contribution of Portugal 2020 to the qualification and employability of adults

Batch 2

Evaluation of the contribution of Portugal 2020 to the
increase in the qualifications and improvement in the quality
of jobs for employed adults

Executive Summary
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1. Goals, Scope and Evaluation Objectives

The present study aims to evaluate the contribution of Portugal 2020 (PT2020) to the qualification and employability of adults, focusing this Batch 2 on the evaluation on adults who are employed, self-employed or employees. The contribution to employability is, within the scope of this batch, understood as what ensures the maintenance of employment.

The operations being evaluated were financed by three thematic Operational Programmes (OP)- Human Capital Operational Programme (PO CH), Social Inclusion and Employment Operational Programme (PO ISE) and Competitiveness and Internationalization Operational Programme (PO CI) and by the seven Regional Operational Programmes- Regional Operational Programme of Norte (PO Norte), Regional Operational Programme of Centro (PO Centro), Regional Operational Programme of Lisboa (PO Lisboa), Regional Operational Programme of Alentejo (PO Alentejo), Regional Operational Programme of Algarve (PO Algarve), Regional Operational Programme of Açores (PO Açores) and Regional Operational Programme of Madeira (PO Madeira). The intervention was structured across two different Investment Priorities (IP), namely: IP 10.3 - *Improvement of equality in accessing lifelong learning to all gender groups, in formal and informal contexts, knowledge and skills update for workers and flexible learning processes* and 8.5 - *Adaptability of workers, companies and entrepreneurs before change*.

The support instruments (Types of Operation -TO) analysed within the scope of Batch 2 of the evaluation include the TO in the scope of improving the quality of access to lifelong learning (IP 10.3), Centres for Qualification and Vocational Education (CQEP /CQ) and Adult Education and Training courses (EFA), and, in the context of adapting workers, firms and entrepreneurs to change (IP 8.5), Action Training for SMEs (Formação Ação), Autonomous Training (Formação Autónoma), Modular Training for Employed and Unemployed (Formação Modular), Training for Business Innovation (Formação Inovação) and Qualification and Internationalization of individual SMEs (QI PME). These TO fall within two distinct intervention paths, namely the creation of training paths and offers that individuals can seek on their own initiative and the creation of incentives for employers to invest in the qualification and training of their human resources.

Between 2015 and 2019, a total of 7 994 applications were submitted to the TO under analysis, and by 31/12/2019 97.6% (7 806) had a decision. Of these, 52% were supported and only 0.6% were completed. The average approval rate of these TO was 52%, below the PT2020 average to date (63%).

The projects supported (approved or completed) up to 31/12/2019 involved a total approved ESF funding of 675 M€. Of this amount, the approved ESF attributable to training actions for employed adults (estimated through the number of participants) exceeded 452 M€.

Table 1. Amount of the ESF approved and participation - allocation to the employed adults | 31/12/2019

IP/TO	Approved Amount ESF (€, thousands)	% of total	Number of participations	% of total
IP 10.3 - Improvement of equality in accessing lifelong learning	78 798	17.4%	49 862	6.9%
CQEP´s/CQ	71 125	15.7%	48 572	6.7%
EFA	7 673	1.7%	1 290	0.2%
IP 8.5 - Adaptability before change	373 160	82.6%	675 093	93.1%
Formação Ação para PMEs	176 125	39.0%	41 997	5.8%
Formação Autónoma	12 184	2.7%	13 214	1.8%
Formação Modular	163 735	36.2%	567 844	78.3%
Formação Inovação	12 017	2.7%	32 677	4.5%
QI PMEs	9 098	2.0%	19 361	2.7%
Total	451 957	100%	724 955	100%

Source: EY-Parthenon based on data from PT2020 information system

Also noteworthy are the amounts allocated to the Formação Ação, Formação Modular and CQEP/CQ, which received around 39%, 36% and 16% of the approved ESF funding, respectively, while in the EFA the value corresponded to less than 2%. Of the total allocated to EFAs, only a small percentage of the approved funding was allocated to Batch 2 (5%). The region Norte concentrated 45% and the region Centro around 27% of the total approved ESF amount, while the region Alentejo received 9% and the Autonomous Region of Açores around 5%. The regions of Lisboa (1.4%), Algarve (0.9%) and the Autonomous Region of Madeira (0.8%) received a reduced percentage of funding.

In terms of physical implementation, 724 955 participations were registered in courses included in the TO object of evaluation and aimed at employed individuals, with 91% obtaining certification (partial or total). TO Formação Modular

simultaneously registered the largest number of courses and participations (exceeding 550,000 participations) in the period under analysis. Also noteworthy is the number of participations in TO aimed at obtaining skills in a business context - Formação Inovação, Formação Ação and QI PME - which together accounted for around 13% of the total participation.

The courses are mainly of short duration, with around 96% of the certified participations having lasted less than 6 months. Very short-term holdings (less than one month) were also quite significant, representing around 67% of certified participations. The certified participations in the actions being evaluated are characterized by being mostly of participants with a level of education at the 3rd cycle level of basic education, secondary or post-secondary education or higher education. Concerning the certification rate by educational attainment pre-training, the failure rate (non-certification) is the same at all levels of qualification.

2. Methodology

This evaluation resorts to two impact analysis methods, namely the Theory-Based Evaluation (TBE) and the Counterfactual Analysis (CA). In the scope of the TBE, the Theory of Change (ToC) was structured by the evaluation team and consented in the Focus Group in which the relevant stakeholders took part. Throughout the evaluation period, the ToC was empirically tested, resorting to the Contribution Analysis to evaluate the contribution of interventions (inputs) to outcomes and impacts created.

The usage of these two methods in the evaluation process required, on one side, both qualitative and quantitative techniques in what regards to the collection, treatment and analysis of information and, on the other, the active contribution of the relevant stakeholders along the evaluation process (through 27 interviews and 5 focus groups), enabling the triangulation of information.

The CA used in this evaluation resorted to matching methods that rely on the construction of a control group - composed of individuals who do not participate in the training initiatives - to match with the treatment group - composed of individuals who concluded their participation in the PT 2020 pieces of training. The matching was established according to observable characteristics (e.g. age, gender, employment situation, educational level, and place of residency) which allowed the definition of a certain degree of proximity between the individuals who integrate the different groups. Following this rationale, the usage of the CA requires a set of characteristics that reinforce the comparability between the two groups to be observable before the occurrence of the treatment. By considering the distribution of the frequency of the training occurring throughout the years, the dynamic matching method was used, which consists of a year-to-year pairing, according to which each treated individual can only be paired with individuals in the control group who displayed similar characteristics in the same period before the occurrence of the treatment.

The implementation of the CA required a wide range of databases. The characterization of the treated individuals resorted to the information available in the PT2020 Information System which regards the participants in the PT2020 training initiatives and was later complemented with data from the Integrated System of Information and Management of the Educational and Training (SIGO), which contains more detailed information on the individuals' identification and qualifications.

Once the treatment group had been identified, the aforementioned database was complemented with information regarding the individuals' employment and wage records, provided by the Institute of Informatics of Social Security which also identified individuals that could potentially integrate the control group - all the active individuals who had been registered in the Social Security between 2013 and 2019, which amount to 50 million registrations. The information on the educational attainment level of this group was collected from the payroll data (Quadros de Pessoal), through direct cooperation between the Institute of Computing and the Strategy and Planning Office of the Ministry of Work, Solidarity and Social Security (GEP). Both databases (i.e. the one regarding the treatment group and the one regarding the potential control group) were accessed through GEP's safe centre, where the Counterfactual Analysis was performed.

Once both groups had been identified (i.e. the treatment and the control group) the effects of the treatment were evaluated for a scope of three years succeeding to its completion, resorting to a set of variables related to employment. The evaluation of the treatment effect was conducted through econometric methods by comparing the two groups in each period.

When estimating the effects of the treatment, several variables were taken into consideration, namely the number of days worked, the dummy variables regarding the employment situation (i.e. having worked at least one day in the previous year and having worked during the full previous year), the monthly wage and the total annual wage. These variables were obtained through the Social Security database, in the second stage of data collection that took place following the identification of the two groups. Even though an analysis of the effects of the treatment on the quality

of the contractual relationships had been previously predicted, it was not possible to be conducted, provided that the entity holding the required data didn't provide the necessary information.

Besides the Counterfactual Analysis of employed individuals, the Counterfactual Analysis of firms whose employees completed training actions supported by PT2020 was carried out. This analysis was based on data from the Integrated Business Accounts System (SCIE) of Statistics Portugal (INE), based on the list of employers of trainees identified by the Institute of Informatics and sent to INE. As in the counterfactual analysis of individuals, the counterfactual analysis of firms was based on the dynamic matching method, with the matching being carried out based on a set of business variables (size, location, sector, solvency). In estimating the treatment effects, the variables of labour productivity, export intensity, return of assets, return on equity and firm survival were considered.

3. Conclusions

Effectiveness

As of 2019, implementation levels were different among the different OP and TO. The PO CI had levels of achievement and positive results that were aligned with the targets set for 2023 after its reprogramming, while the majority of results from regional OP were still below these targets, even in cases where they had been revised downwards through a reprogramming. As regards the forms of intervention based on training in the business context, **difficulties in terms of demand are recognised.**

The reduced value attributed by the beneficiaries (companies) and recipients (workers of the applicant companies or workers who attend the training actions by their initiative) to the benefits of training in the face of the opportunity cost of the investment inherent to it is one of the main explanatory factors of the low demand for training actions in the business context. In addition, the influence of other factors such as lack of knowledge of the possibility of adhering to such support, the administrative burden associated with specific ESF procedures, or the level of incentive allocated to this component (in the sense that it follows the same rules as overall investment, including those relating to State aid).

The results of the Contrafactual Analysis reveal a strong cause-effect relationship between participation in supported actions and increased employability in workers, provided that **the individuals who completed their training showed, on average, a probability of maintaining their job in the year following the completion of training four times higher than that of the control group.** This is an effect that, being valid for both men and women (although slightly higher in the former), remains significant, despite decreasing in time, until at least three years after treatment.

The results are qualitatively similar between the different regions of the Continent, and the results for the Autonomous Regions tend to be non-significant, due to their small sample size. By TO, the effects are distinct in terms of their magnitude and perennity, with the TO Formação para a Inovação Empresarial, QI PME and Formação Autónoma having superior effects in the short-term, but more ephemeral and Formação Ação having more persistent effects over time.

The effects of the participation of individuals in PT2020 actions also extend to employers, with **a positive impact on labour productivity (+3%) and asset profitability (+3 p.p.) in the year following the participation.**

The analysis at the level of salaries did not allow the identification of a significant cause-effect relationship between participation in PT2020 actions and changes in the salaries of certified participants compared to those recorded in the control group.

Efficiency

The duration of the training is a critical determinant of the unitary cost of the intervention produced. Analysing the costs associated with the universe of actions developed by TO, it is concluded that the average unit cost is 144 € per participant. The largest investment per trainee occurs in longer duration courses (EFA and Formação Ação para PME). In shorter duration training, costs range from €49 (Formação Autónoma) to €88 (Formação Modular). The average daily cost per participation metric allows partial control of the bias associated with the duration of courses. As a result, there is a greater balance between TO, with the courses Formação Ação recording the highest daily cost (€4.72).

The cost per certificate depends heavily on the cost of the training action, but introduces an adjustment that depends on the withdrawal, non-approval and completion after the expected time. In the training initiatives in the scope of IP 8.5, certification rates are close to 100% so the cost per certified participant is identical to the cost per participant. In EFA Courses, in which part of the trainees withdraws, the cost of certification increases by 49% compared to the cost of participation.

Certificates are heterogeneous and are associated with different qualifications. EFA courses and Formação Modular are the types of training that generate the most certifications with higher qualifications (as a percentage) and therefore those in which the cost per certificate for the 3rd cycle of basic education and secondary education increases the least compared to the cost per certificate.

Insufficient demand from adults who do not hold secondary education to obtain support and guidance from the CQ or to integrate longer training programs such as the EFA Courses is positioned as a first obstacle. On the other hand, the financial implementation of TO promoting training in the business context is modest. In this sense, changes in the allocation of resources could prove to be neutral in terms of results. Among the programs that integrate IP 10.3 (CQ and EFA Courses), there is a very limited trade-off, with its nature and form of intervention presenting very different contours, so substitutability should not be considered between them.

The need for choice is mainly at the level of IP 8.5, particularly among less expensive TO such as Formação Modular and typologies such as Formação Ação para PME which are longer and more customized but with much higher costs. Despite the evident increase in benefits concerning the employability of trainees, it is clear that the increase in costs requires reflection in the face of the benefits captured.

Impact

In the period 2014 and 2019, the actions of PT 2020 played a relevant role in lifelong learning by representing 15% of the participation in training actions for employees registered in SIGO, to which more than 100,000 participations in training initiatives that were not included in the Catálogo Nacional de Qualificações CNQ add to. This contribution proved particularly relevant in 2018 and 2019, due to the delay in the implementation of OP and some TO for employed adults. Among segments of the employed population, **the actions of PT 2020 assumed special relevance among individuals holding qualifications of 1st and 2nd cycles of basic education, in the age groups above 55 years, in women and in convergence regions.**

Regarding the contribution to the increase in the qualifications of adults integrating the labour market, the actions of PT 2020 proved to be less significant, and the direct contribution assumed a lower relevance (only 0.1% of the overall increase in the level of education of the population employed in Portugal, corresponding to 500 people) than the indirect contribution - estimated by the possibility that certifications for Short-Term Training Units (UFCD) of level equivalent to secondary education completed by individuals with schooling up to the 3rd cycle of basic education (2% of the total) may manifest themselves in the effective increase in the level of education).

In terms of the impact on employability, **the actions contributed to the safeguarding of jobs and the increase in the number of days worked** and, consequently, to the reduction of the unemployment and underemployment rate in the period 2014-2016, thus **enhancing the achievement of Europe 2020 Strategy (EE 2020) target of the employment rate in 2019** (76.1% in 2019, above the target 75%).

Despite the positive impact on the treated entities, the low incidence of actions on the universe of companies and workers (<1% of companies or workers in Portugal) does not allow for the attribution of a relevant contribution of the PT 2020 actions to the increase in the wages of workers in Portugal. The same applies in relation to the productivity and profitability of companies in Portugal.

European Added Value

Approximately 15% of the total participation of employed adults registered in SIGO benefited from the support of PT 2020, **producing a critical scale effect for the approximation to the European goal of increasing the participation of the adult population in lifelong learning actions.** These actions also contributed, although indirectly, to the achievement of the target set in the National Reform Plan (Plano Nacional de Reformas) of 75% of the employment rate for individuals aged between 20 and 64 years.

It is recognised that the implementation of an effective policy to promote the qualifications of the population and combat the structural challenge of low qualifications would have been hampered if Portugal had not been able to use the ESIF, as it would have encountered greater difficulties in continuously mobilising the volume of investment needed, and it is expected that, in a scenario of scarce resources, the approaches directed at the unemployed would be set as a priority, which would compromise the support allocated to employed adults and the segment of low-skilled adults.

There is also an additional effect of the funds - although much less intense in the face of the observed support - which have enhanced the mobilisation of companies for the training of their workers, in particular in smaller companies.

Finally, there is also added value resulting from the influence of European regulatory and strategic frameworks (transposed to the regulatory plan of the ESIF support) in the framework of the national EFA policy, with emphasis on

the adoption of more flexible training models and progressively more aligned with the needs of the labour market and the specificities of the territory.

Operative efficiency

The **operationalization mechanisms enhanced the efficiency of the actions** supported by PT2020 in the context of training for adults, despite the existence of increased challenges, including the evolution of sectoral policies during the programming period, the change of context, the need for greater efficiency associated with greater decentralization in the management of the support provided, or the ability to engage local and regional actors and the establishment of effective partnerships.

The instruments of articulation existing between the MA of the OP and the between the MA and the entities responsible for the implementation or regulation of the actions supported proved to be adequate and effective, which is attributable to the structure according to which they operate and the work they have been developing in this direction over the past years.

In general, there is an alignment and coherence between the rules and guidelines made available in the tender opening notices (AAC) with the generality of the objectives, priorities and targets defined, as well as an alignment with the specificities of the companies, sectors and territories (enhanced by the fact that the criteria are aligned with RIS3 in the various regions). **When training is incorporated into business investment projects there is a complete alignment with the needs of companies.**

They are identifiable constraints at the demand level. In the case of companies, they reside mainly in the reduced value attributed to training and continuous learning, motivated by the undervaluation of their importance for the maintenance and improvement of indicators with competitiveness or productivity, by strongly rooted cultural factors and by the low level of qualification of many entrepreneurs. **In the case of employed adults**, the constraints on demand are mostly the result of the difficulty in conciliating their personal, family and professional life and the devaluation of lifelong learning by the employer and the national labour market. Consequently, it is found that workers and employers often perceive training as having a neutral or negative impact in the face of the "investment" (or opportunity cost) it requires; the availability and/or motivation of the employer tends to be observed in situations where it recognizes in training benefits, in the short and medium-term, significant for a productivity increase.

The SANQ, being a strategic instrument relevant to the country in terms of anticipating and managing qualification needs, presents persistent constraints that need to be taken into account, in particular: at the level of effective participation of the business fabric and its representatives in identifying current needs and the most relevant constraints regarding skills and competence needs; limited capacity for rapid adaptation to context transformations, provided its difficulty in keeping up with the main changes in progress and areas of potential growth.

Finally, the non-framing of a significant number of training actions approved in the scope of the TO under evaluation in the **CNQ** is identified. Hence, the **need for a continuous update of SANQ** in articulation with the aforementioned actors is recognized. There is also a limited supply of training aligned to the news of the companies in some regions, particularly in Madeira and the Açores.

In terms of communicating and disseminating the support to potential target audiences, some limitations challenge the mobilization of demand and rely, in part, on the fact that some entities do not present a policy of autonomous diffusion of the available support.

4. Recommendations

R1 Mitigating constraints to the mobilization of demand

The explanation for the lack of adherence to training by beneficiaries and recipients is multidimensional but lies fundamentally in the reduced value attributed to the benefits of training in the face of the opportunity cost of investing in lifelong learning by employers and employees. To promote the demand, it is recommended to:

- ▶ Simplify the application and the payment requests procedures in the training component, in the case of business investment projects supported by incentive systems.
- ▶ Consider attractive mark-ups in the case of presentation of business projects with a training component.
- ▶ Support the legal and normative revision that ensures the continued career progression and wage appreciation of workers who make investments in lifelong learning (this recommendation is mainly addressed to the social partners).
- ▶ Create comprehensive incentives near the business fabric for the investment in training strongly articulated with the business project and to be carried out during working hours.
- ▶ Focus, whenever possible, on less conventional approaches in training, valuing training in the work context, using new technologies, and valuing emerging skills.
- ▶ Update the CNQ to the real needs of companies and establish an upgrade methodology that allows its rapid development.

R2. Review the contours of longer formations such as EFA courses to increase their demand

The weak adherence of employed adults to EFA courses reflects the need to rethink the longer training initiatives directed to the segment of the employed population. The compatibilization of this type of long training with the professional dimension is currently a challenge that can be mitigated by increasing the proportion of training that occurs through platforms suitable for distanced learning and the adjustment of their duration and time.

In addition to recommendations 1 and 3, the following specific initiatives are recommended:

- ▶ Review the contours of EFA courses, focusing on less conventional approaches in training, the use of new technologies, and the valorization of emergency skills, which are seen as fundamental for workers of the future.
- ▶ Organize the training initiatives starting from the positioning of adults in relation to the training framework for a response more adapted to their needs, in a logic of approximation of a more personalized character to the needs of each adult or group of adults.
- ▶ Invest in processes leading to a continuous improvement of the action of Professional Training and Education (EFP) operators.

R3. Enhancing the demonstration effects and visibility of the positive results emerging from workers' training and qualification

The efforts employed by MAs and relevant public agencies in raising awareness of the positive results of training and qualification of workers are strategic to enhance the value attributed to the benefits of training.

It is recommended the dissemination of the results and benefits of training among the groups of beneficiaries, with a special focus on companies. This awareness should be articulated with the social partners and decentralized in territorial terms, using the appropriate means and forms of communication for the target audience.

R4. Ensure that the system monitoring the TO targeting adult training produces timely information to support management decisions

Continuous monitoring of TO on adult training is essential to support MA's decisions regarding the management of interventions. The existence of autonomous information systems for the different MA and a more global PT2020 system, more centralized in AD&C, does not guarantee the necessary and timely articulation for the production of standardized management support information from a *supra*-OP perspective.

It is therefore recognized the importance of structuring a monitoring system that addresses the indicators and variables necessary for the monitoring (physical and financial) of the TO and allows reasoned management decisions

to be made by the financing OP in cross-cutting matters of action in this area. Ideally, this system should be the subject of a systematic update. The monitoring system should support the dissemination, internally and externally, of information on the implementation and results of the interventions supported. Its design should conciliate the needs of information production with a moderate cost of development and maintenance, which can be ensured through a simplification effort and computing automated processes.

R5. Develop a monitoring framework, with indicators based on a process-outcome approach to quantify and characterize the direct effects of training

The quantification of the effects produced is heavily dependent on the quality and breadth of the information available. Although some OP include a small number of outcome indicators on the participant after completion of training, few take into account the outcomes of companies. It is therefore important that the monitoring system to be developed includes for each of the TO a set of indicators to monitor the trainee's journey in the period following the involvement in training and the effects on companies.

The implementation of this system would naturally involve at least the entities that have the identification of trainees and the updated benchmark of their situation following the completion of training, the entities that have the updated information on individuals' participation in the labour market, and the companies (which would report to the financing OP or the Intermediate Bodies - IB - their result indicators). The following initiatives are recommended:

- ▶ Develop a monitoring framework for the outcomes of training based on a (limited) set of key indicators.
- ▶ Develop complementary indicators to the base system, between objective and subjective variables, directed to longer-term programs.
- ▶ Promote greater articulation between the entities that hold the information and those responsible for the management of the ESIF. Preferably this articulation should rely on protocols that clearly establish, at least, the scope of collaboration, the form and periodicity of the provision of data, and the applicable data protection rules for the data transmitted between public administration entities. The adoption of regular meetings between these entities will also be important to monitor the implementation of protocols.

R6. Deepen the work conducted in the scope of harmonization of procedures and Exchange of good practices in the operationalization of the OP and TO, involving the relevant stakeholders

Past experiences and different models of operation generate evidence that should be discussed and shared to ensure greater effectiveness and efficiency in promoting employment, improving productivity and competitiveness of enterprises, and contributing to regional development. The continuous improvement of education and training systems can benefit greatly from these sharing processes. In this sense, it is important to promote collaborative practices between entities at various levels, deepening the work previously carried out by the Rede para a Educação e Qualificação (Network for the Education and Qualification), involving the holding of a meeting with a six-month periodicity with the aim of promoting an open and participated discussion among all relevant entities on good practices and bottleneck factors that are emerging in the operationalization of the TO.

R7. Mitigate or eliminate constraints in the operationalization mechanisms to improve the efficiency of actions supported by PT2020 in adult training

To mitigate or eliminate the constraints in the operationalization mechanisms to enhance the efficiency of the actions supported by the PT2020 in the context of adult training, it is important to:

- ▶ Ensure greater territorial decentralization capacity in regard to the management of the grants, without compromising the efficiency generated by the mobilization of tender opening notices (AAC) that are common to the different OP, provided the importance of articulating sector-oriented policies at the regional level.
- ▶ Ensure the establishment of more effective, targeted, simplified and tailored processes for disseminating the support to the potential target audiences, ensuring that the information that is received by the beneficiaries is effectively understood.
- ▶ Simplify the processes of adhering to the training provided, so that they do not constitute an obstacle to the mobilization of the adult population employed.
- ▶ Mitigate the constraints identified in the SANQ associated with the need for a continuous update to respond to changes in the context of the labour market. This adaptation of the SANQ should involve continuous concertation of efforts, ensuring the effective participation of companies and their representatives, the QC and the IEFPP.

- ▶ Carry out a national census of training companies, at the regional level, with qualifications to provide the type of training that companies need, to ensure a continuous adjustment between supply and demand for qualifications, aligned with regional and business specificities and dynamics.