Evaluation of e-Cohesion 2014-2020

In-depth case study – Balcão2020 Portuguese e-Cohesion system

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Glossary of terms

Portuguese Cohesion and Development Agency	Body responsible for e-Cohesion system development and maintenance
Base única de Promotores	Specific module in Balcão2020 implemented to detect double funding
IAPMEI	Agency for Competitiveness and Innovation

List of abbreviations

AA	Audit Authority
CA	Certifying Authority
CF	Cohesion Fund
CPR	Common Provisions Regulation
EAFRD	European Agricultural Fund for Rural Development
EMFF	European Maritime and Fisheries Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
GDPR	General Data Protection Regulations
IB	Intermediate Body
IRN	Institute of Registries and Notary
HTTPS	Hypertext Transfer Protocol Secure
MA	Managing Authority
MB	Megabyte
OP	Operational Programme
SFC	Structural Funds Management system
VAT	Value-added Tax
VPN	Virtual Private Network

1.   Introduction

Balcão2020 is the e-Cohesion system used to electronically exchange information between ESI Funds authorities and beneficiaries in Portugal. It was selected as a case study following our EU survey of programme authorities and beneficiaries, demonstrating that Balcão2020 is characterised by a high level of interoperability, standardisation of practices, and high user satisfaction. Therefore, from the experience of Balcão2020, it is possible to draw good practices which could be potentially transferred to the other Member States (MS). Apart from the mentioned EU-wide survey, this report is based on findings from desk research and in-depth interviews with representatives of the Portuguese Cohesion and Development Agency, a public institution whose mission is to coordinate regional development policy and ensure the coordination of the European Structural and Investment Funds (ESIF) across the country and is in charge of the development of Balcão2020. Interviews were also held with Managing Authorities (MAs), Intermediate Bodies (IBs), Audit Authority (AA), as well as beneficiaries (a complete list of interviewees is provided in Annex). The report is structured to present the key characteristics of the e-Cohesion system; discuss its development process; assess how it meets key requirements and contain key functionalities; examine the results that the use of electronic data exchange system brings; and provide good practice examples, as well as challenges and lessons learnt from the introduction of the e-Cohesion system.

Table 1. Introduction to Balcão2020

e-Cohesion system title	Balcão2020
Years of operation	7 years (2015-2022)
ESI funds	ERDF, CF, ESF, EMFF, EAFRD
Operational Programmes	
Competitiveness and Internationalisation OP (2014PT16M3OP001)	OP Technical Assistance (2014PL16CFTA001)
Regional OP Alentejo (2014PT16M2OP003)	Regional OP Algarve (2014PT16M2OP007)
Regional OP Azores (Autonomous Region) (2014PT16M2OP004)	Regional OP Centro (2014PT16M2OP002)
Regional OP Lisboa (2014PT16M2OP005)	Regional OP Madeira (Autonomous Region) 2014PT16M2OP006
Regional OP Norte (2014PT16M2OP001)	Sustainability and Resource Use Efficiency OP (2014PT16CFOP001)

Source: PPMI consortium

Portugal follows a **centralised** approach to the electronic exchange of information. Indeed, Balcão2020 is used by all 10 national/regional Operational Programmes (OPs) funded by ERDF and CF in Portugal, as well as six OPs from other ESI funds, including Rural Development OPs[1]. In total, Balcão2020 covers all ESIF and all national/regional OPs in Portugal. Since its launch in 2015, the system has been used by approximately 270,000 beneficiaries.

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[1] Additional OPs covered: Maritime and Fisheries OP (2014PT14MFOP001); Human Capital OP (2014PT05SFOP001); Social Inclusion and Employment OP (2014PT05M9OP001); Regional OP Madeira - Rural Development (No CCI); Regional OP Azores - Rural Development (No CCI); Regional OP Continental Portugal - Rural Development (No CCI).

Figure 1. Balcão2020 system architecture
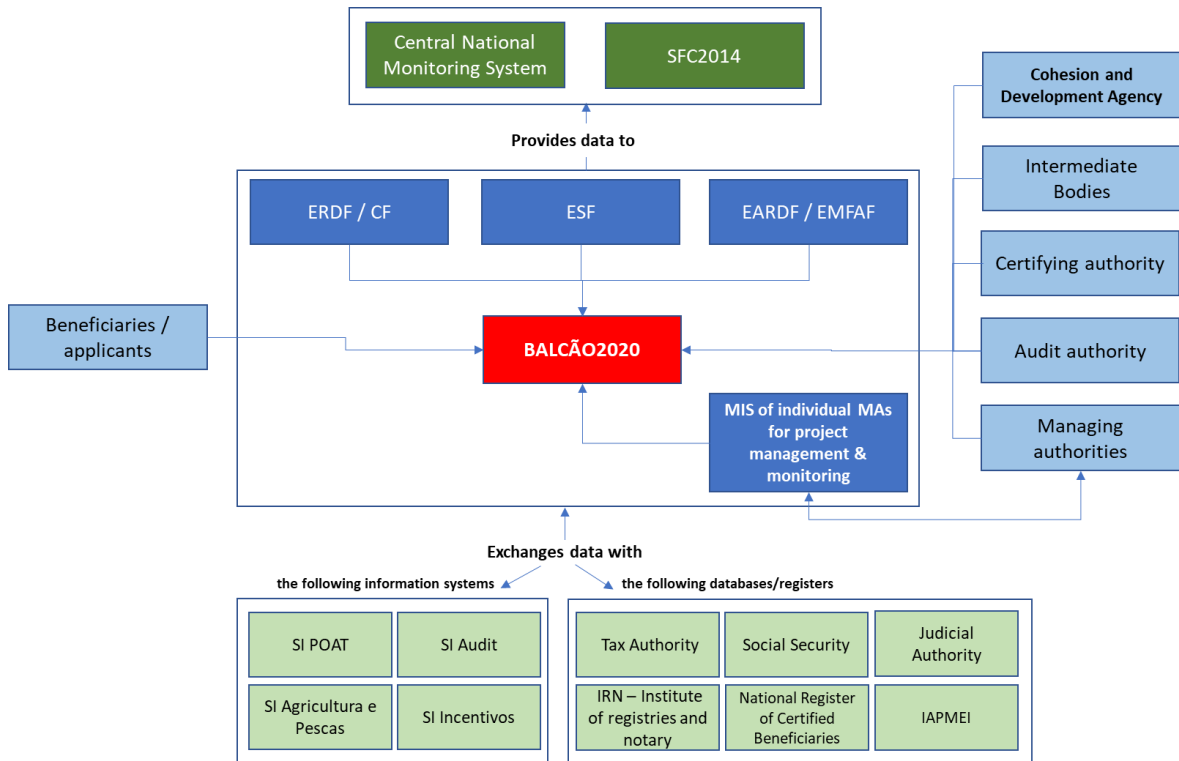
Source: Authors' representation based on information received from the Portuguese Cohesion and Development Agency

The beneficiaries use Balcão2020 to exchange information and documents with the authorities at each project lifecycle stage. While **beneficiaries directly access the system through a website, authorities can access it either through the website or their own management and information system**, which is **interoperable with Balcão2020**. The information entered/uploaded by the beneficiaries on Balcão2020 is transmitted to the authorities' specific management and information systems. All the tasks carried out on these systems and the exchanges with beneficiaries are automatically transmitted to Balcão2020. The use of the system is mandatory for all ESI funds, except for the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). The beneficiaries can choose to apply through the funds' specific platforms or via Balcão2020.

2. Development and operation of Balcão2020

The Balcão2020 e-Cohesion system was launched in 2015 to address the requirements of the EU Regulation 1303/2013. It is the unique access point for applying and managing the projects financed by the ESI Funds in Portugal. It has been further developed during the years to integrate new functionalities aimed at simplifying the use of the system.

2.1. European and national legal framework

The setting up of Balcão2020 was closely linked to Articles 112, 122 and 125 of the EU Regulation 1303/2013. The development of the e-Cohesion system is mentioned in the Partnership Agreement. It was stated that the Portuguese Cohesion and Development Agency would be in charge of developing and managing a system to exchange information and documents between the beneficiaries and authorities of all the ESIF programmes.

2.2. Operational aspects in introducing and developing the system

The EU regulatory framework played a critical role in developing the Portuguese system as Balcão2020 was set up to respond to the EU Regulation 1303/2013 and was co-financed by EU funds. Following a public call for tenders, the system's development was commissioned to an external service provider who is also in charge of the maintenance and updates. Before setting up the system, **the Portuguese Cohesion and Development Agency consulted with the authorities of the different OPs to identify the users' needs and collect suggestions to develop the e-Cohesion system**. Furthermore, thematic networks of MAs were established in Portugal to enhance harmonisation of procedures and ensure "coherent monitoring and evaluation results for all OPs at National, Regional and Local level".[2] The work of these networks was fed into Balcão2020.

The initial version of Balcão2020 was the unique access point for beneficiaries and authorities to exchange information concerning ESI Funds. Balcão2020 was conceived and developed with "interoperability in mind". Indeed, interoperability with other national/regional registers/systems was, since the beginning, one of the main objectives. In its first version Balcão2020 **was interoperable with the IRN – Institute of Registries and Notary**,[3] which allowed accessing the information on the beneficiaries such as the fiscal number, location, initial capital, and economic activity. **The system's interoperability has been extended to several other systems/registers** throughout the years, including the social security register, the tax authority register (beneficiaries' financial situation and VAT), and IAPMEI (SME certification). Implementing links between Balcão2020 and other national/regional registers has simplified the work of beneficiaries and authorities. Still, it has been resource and time-intensive due to the need to comply with GDPR requirements and establish interoperability among different systems. Because the principle of **only once encoding** is not enforced at the national level, and because of privacy issues, interventions on national regulations became necessary to facilitate interoperability.

The survey results highlight that the beneficiaries are aware of the efforts of the Portuguese Cohesion and Development Agency to constantly improve the e-Cohesion system based on users' feedback. Indeed, 74% of the beneficiaries believe that the functionalities and overall functioning of the system are constantly improving, and 76% of the respondents answered that they could easily provide their feedback on the system's functioning (Figure 2). The system evolved in terms of features over the programming period. For example, the

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[2] OECD (2020). "Territorial Reviews Regional Policy for Greece Post-2020" Published on October 01, 2020.
[3] https://irn.justica.gov.pt/en-gb/

"Current Account" section was added to allow each beneficiary to keep track of the operations and payments of all the relevant projects, even if these are financed under different programmes. Several beneficiaries also highlighted that the system improved over the years in terms of user-friendliness, response time, and helpdesk services. Furthermore, beneficiaries report that the system has been updated to address some emerging issues, such as simplifying the information entry throughout the application phase or adding specific payment requests to adapt to specific financial instruments.[4]

Figure 2. Feedback functionality in Balcão2020
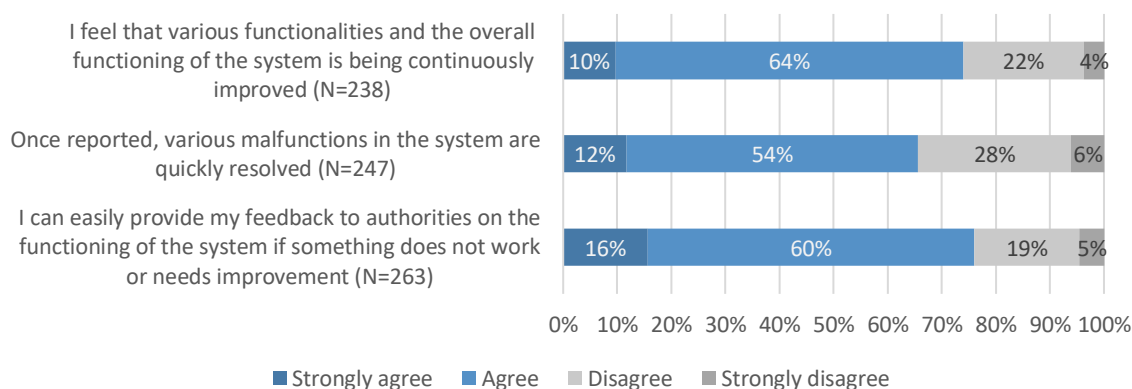
Source: PPMI Consortium – Beneficiary survey - Question 20: "Please assess the following statements on the collection of feedback by authorities and how it results in improvements of the electronic data exchange system:"

Despite **the considerable efforts required to set up the system** in terms of IT procurement, tendering process, and administrative costs, according to the interviews, the benefits generated by the introduction of Balcão2020 exceeded the costs, as it has significantly simplified the work of the MAs, the IBs and the beneficiaries.[5]

Figure 3. Benefits of the introduction of the system
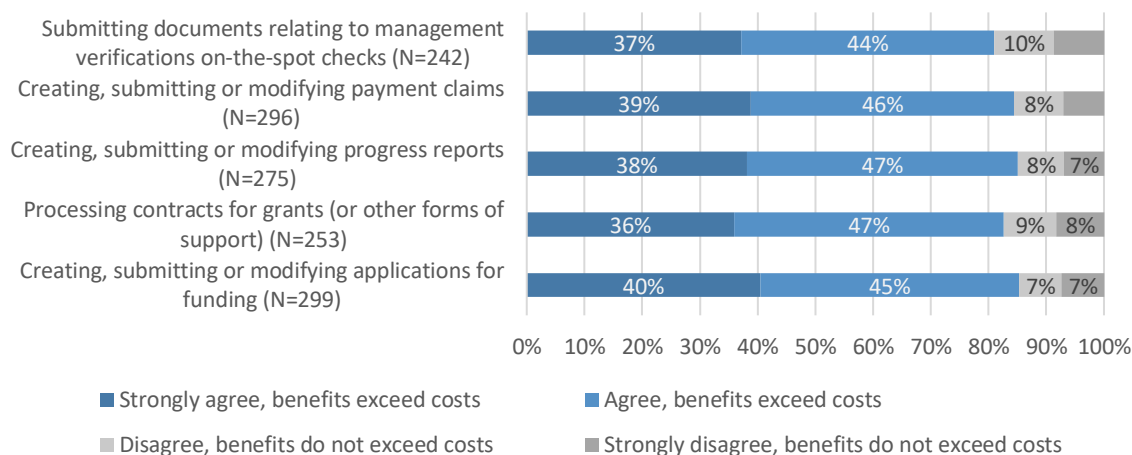
Source: PPMI Consortium – Beneficiary survey - Question 15: "Please assess the following statement: the benefits (e.g. reduced administrative burden, simplified procedures) of the introduction of the electronic data exchange system between beneficiaries and authorities exceeds the associated costs (e.g. the time and effort required to use it) for the following processes:"

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[4] Interviews with beneficiaries
[5] Survey and interviews with authorities

3.   Key features of Balcão2020

The analysis of key features of Balcão2020 is based on the standards and requirements set out in Article 122(3) of the 2014-2020 Common Provisions Regulation[6], the related Implementing Regulation[7], and various guidance documents[8]. This report section is structured in four sub-paragraphs: **principles, key processes, functionalities, and data security requirements** of the e-Cohesion system. All authorities and beneficiaries have access to the system. Table 2 summarises the main activities in the system by type of user.

Table 2. Main activity in Balcão2020 for each major user group

Type of user	Main activity in the system
Applicants / Beneficiaries	Applicants use Balcão2020 to apply for funding and manage each stage of the project lifecycle. The only exception is requests for information or document integration/clarification from the AA that are usually sent by email, as the system does not support this functionality. The beneficiary can retrieve all the information uploaded in earlier process stages or previous projects.
Intermediate Body	IB's use Balcão2020 directly to carry out their tasks as administrative users. They constitute beneficiaries' first point of contact and have similar access rights. Also, use the system to interact with the MA. e.g., to upload evidence of expenditure, etc.
Managing Authority (MA)	The MAs access the system through their own interoperable system with Balcão2020. They perform all their tasks in their system, and the data is automatically transmitted to Balcão2020. The communications between MA and beneficiaries occur through the system except for the requests for integration of additional or missing documents/information, which are sent by email to the beneficiaries.
Certifying Authority (CA)	The CA has access to the system and can visualise all the needed documents and information uploaded by the beneficiaries and MA that are needed to perform its tasks. Indeed, interim payment requests and accounts are uploaded and analysed within Balcão2020; annual reports from the Managing Authorities to the Certification Authority are visible in the system and, through the system, are subsequently submitted with the respective payment request to the European Commission through SFC2014.
Audit Authority (AA)	The AA can access the system and visualise all the information uploaded by the beneficiaries. The authority can access MAs' systems and other IT systems such as SIAudit (a system containing the control activities, such as audit reports and management verifications) to perform the necessary tasks. The AA communicates via email with beneficiaries if the integration of additional information/documentation and clarifications are necessary.

Source: PPMI Consortium

3.1.   Key principles

The key two principles of the e-Cohesion initiative are **interoperability** and **only-once-encoding.** The former refers to the minimum requirement that all programme authorities

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[6] European Union (2013). Regulation (EU) No 1303/2013 Of the European Parliament and of the Council of 17 December 2013

[7] European Commission (2014). Commission Implementing Regulation (EU) No 1011/2014 of 22 September 2014 laying down detailed rules for implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council as regards the models for submission of certain information to the Commission and the detailed rules concerning the exchanges of information between beneficiaries and managing authorities, certifying authorities, audit authorities and intermediate bodies. OJ L 286, 30.9.2014

[8] European Commission (2017). Questions & Answers on e-Cohesion Programming period 2014-2020 (ERDF, Cohesion Fund and ESF), EGESIF_17-0006-00, 06/04/2017; Building Blocks for e-cohesion: good practices from Member States, regions and programmes.

have access rights to the system and share data among themselves. Balcão2020 fulfils the interoperability principle as it is interoperable with the management and information systems of the authorities of all the Portuguese ESI Funds Operational Programmes. **Interoperability is achieved beyond the programme level; the system is interconnected to the central national monitoring system and multiple national/regional registers, such as those used by the tax authority, the agency for social security, and the judicial authority. In extension, Balcão2020 showcases interoperability on the EU level, as it uses the automatic interface for interconnection with the SFC2014.** For each programme, the Cohesion and Development Agency creates in the system a reserved area where each MA can upload information for certification purposes. Once payment requests are checked they are submitted to the European Commission in the SFC2014 system.

Box 1. Interoperability

Enhancing interoperability with other national/regional systems/registers was a key objective when developing Balcão2020. Interoperability achieved beyond the programme level brings several advantages both to the authorities and beneficiaries:

- **It allows to automatically pre-fill some fields** with the beneficiaries' information included in the registers, saving users' time and resources;

- It simplifies authorities' work by **saving** a considerable amount of **time during the verification phase**;

- **It makes it possible to detect double founding applications** by projects applicants (see Box 2)

For example, the interoperability of Balcão2020 with the system of the Tax Authority allows to easily check the applicants' debt situation, facilitating the assessment of eligibility.

Source: PPMI Consortium

In this way, the **once encoding principle is closely related to the interoperability of Balcão2020** and its connection to other systems at the European, national, and regional levels**.** Only once encoding means that registry information can be entered only once, without having to submit the same information several times. This concerns not only beneficiaries but all users. According to their specific privileges, institutional users from the MA, CA, and AA have access to all relevant information submitted by beneficiaries. For beneficiaries the implementation of the only once encoding principle is not limited to the project level only but works at the level of the programme. Information previously inserted for previous projects is reused by the system where possible.

According to the survey results, most beneficiaries found pre-filling information based on information contained in national/regional registers very useful (67%). The beneficiaries also appreciated the functionality that pre-fills information based on information entered in previous steps (75%) and during project application (72%) (Figure 4).

Figure 4. Re-use and pre-filled information in Balcão2020

Pre-fills information based on information available from various national/regional registers (such as data on employment, companies and similar) (N=114): 67% | 25% | 8%

Pre-fills information based on what you entered in previous steps (N=210): 75% | 24% | 1%

Pre-fills information based on your project application (N=192): 72% | 26% | 2%

- It is very useful; it helps to save substantial time and resources
- It is fairly useful; it helps to save some time and resources
- It is not useful / its benefit is negligible

Source: PPMI Consortium – Beneficiary survey - Question 13: "Does the electronic data exchange system re-use (pre-fill) some information that you have submitted previously, or obtain such information from other sources?"

3.2. Key processes

Balcão2020 fulfils the minimum requirements for key processes as laid down for the e-Cohesion initiative. They provide all the necessary features to facilitate the exchange of information between beneficiaries and programme authorities regarding all the key processes of the project lifecycle: application, progress reports, modification requests, payment claims, exchange of information related to audits and management verifications.

During the application phase, all communications and exchange of data and information happen through **the e-Cohesion system**, which **automatically detects double-funding applications**, reducing the risk of fraud.

Box 2. Detecting double funding applications

Balcão2020 is characterised by a specific module, "Base única de Promotores", which helps the MA deal with the risk of double funding. To detect double funding applications, the module uses the information included in some database/registers interoperable with Balcão2020, such as those of:

- The Tax Authority;

- The Social Security;

- The Judicial Authority;

- The National Register of Certified Beneficiaries (IAPMEI)

If the system identifies a double funding application, the applicant is blocked and unable to submit another application through the system. [9]

Source: PPMI Consortium

The AA and CA access Balcão2020 directly, and through the system, they can access the specific MAs' management and information systems. In this way, they can visualise all the data and documents uploaded by the beneficiaries and relevant information stored in other interoperable systems/registers needed to perform audits and manage verifications. Despite the access to Balcão2020 and specific MAs' management and information systems,

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[9] EPRS (2021). Study on "Digitalisation of European reporting, monitoring and audit. European added value assessment". European Parliamentary Research Service. October 2021.

the AA still uses email and the telephone for additional requests and communication with beneficiaries concerning audit and management verifications.

Overall, applicants, beneficiaries, and programme authorities, in all roles, work with Balcão2020. **Between 75% and 100% of the exchange of information between applicants/beneficiaries and programme authorities occur within the system during project application and implementation phases, which significantly speeds up these processes and reduces** project management costs.[10] Furthermore, the use of Balcão2020 has simplified, according to the stakeholders interviewed and consulted through the survey, the work of both authorities and beneficiaries, especially for those beneficiaries that took part in more than one project over the 2014-2020 programming period. Indeed, the use of the system allowed for the standardisation of processes, considerably facilitating the work of all parties involved.[11] Finally, the e-Cohesion system allows monitoring the progress of the different OPs, which makes it possible to check the situation of each ESI-funded programme quickly and easily.

3.3.   Key functionalities

The third key requirement of e-Cohesion relates to **functionalities that enhance user-friendliness, usability, and accuracy of information exchange**. In this respect, Balcão2020 includes a broad range of functionalities that help the users carry out the project's different phases and improve user experience and satisfaction. Most beneficiaries judge these functionalities as very useful as they help save time and reduce errors (Figure 5).

Figure 5. Functionalities of Balcão2020
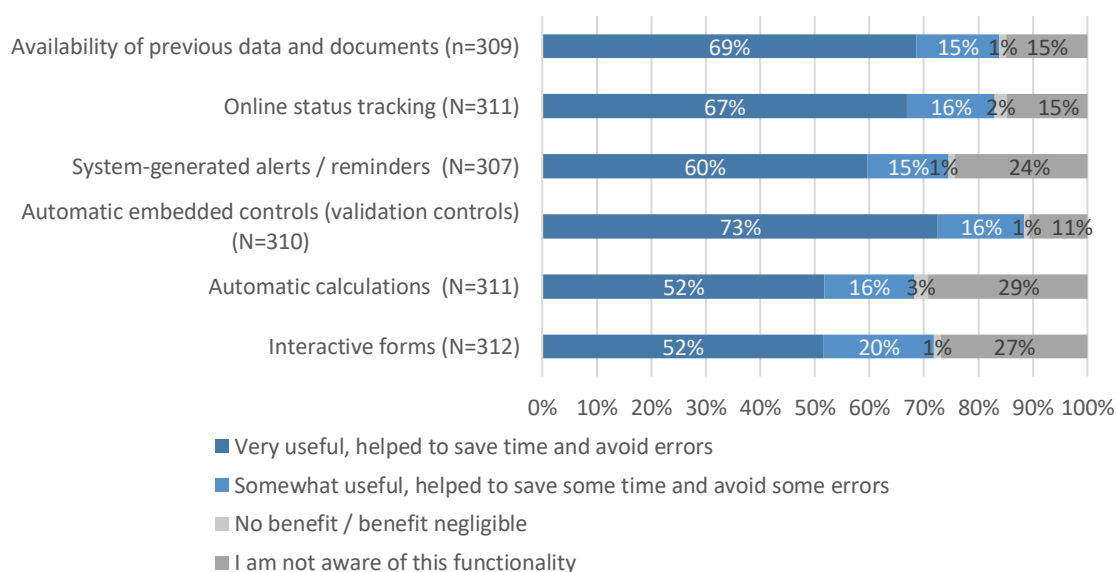
Source: PPMI Consortium – Beneficiary survey - Question 16: "How useful (or not) are the following functionalities of the electronic data exchange system you indicated above?"

For example, the system provides **automatic embedded controls** and **automatic calculation of costs,** which helps prevent the beneficiaries from entering incorrect data. The stakeholders interviewed and consulted through the survey highlight that these functionalities helped save considerable time for beneficiaries and authorities, reducing verification and correction processes. The survey data shows that **most beneficiary respondents consider automatic embedded controls particularly useful.**

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[10] Survey to the authorities

[11] Survey and interviews with authorities and beneficiaries

Some other functionalities highlighted by beneficiaries include the possibility to retrieve the documents and information submitted in other projects and previous steps of the projects at any time; the notification that certain actions took place or need to take place; the possibility to monitor the progress status of a project; and the summary dashboard. These are considered key elements that simplified their project management activities and increased transparency and clarity of the different processes.

3.4.   Key data security requirements

The data security requirements of an e-Cohesion system are defined in Article 9 (1) of the Implementing Regulation. This refers to data availability, integrity, and confidentiality of information. Balcão2020 employs role-based access control (authorisation) using Single Sign-On authentication based on the national fiscal number, which grants each user group different rights in the system to ensure data confidentiality. Balcão2020 is based on Microsoft Azure technology, and data integrity is ensured using VPN secured channels and recurrent daily backups. It also employs encryption through Hypertext Transfer Protocol Secure (HTTPS). The system is always available during office hours and operates 24 hours a day, seven days a week, allowing to access all the needed information whenever needed. In case of technical issues, defined incident management is in place.

4.   Usefulness and performance of Balcão2020

This section provides a concise overview of the usefulness and performance of Balcão2020. Furthermore, we discuss potential improvements of the system and aspects related to user-friendliness and help-desk services. Both authorities and beneficiaries highlighted that the use of Balcão2020 **simplified their work by improving communication and transparency, re-using information contained in other national/regional registers, reducing errors, speeding up processes and promoting their standardisation.** In some cases, **the interviewed beneficiaries also reported that the use of the system encouraged them to apply for EU funding**.

4.1.   Overall usefulness and performance

One of the most relevant aspects pointed out both by authorities and beneficiaries is that **Balcão2020 allowed for a centralised and standardised approach to the implementation and management of ESIFs**. This is particularly valuable for beneficiaries who work on projects across different OPs. In this way, they do not have to learn a new tool and become familiar with new practices. For authorities, this is useful because it can retrieve necessary documents from a unique access point, which considerably speeds up their decision-making process. **Another feature particularly appreciated by the beneficiaries is the dashboard summarising the projects' key information and progress**. Furthermore, it is **very useful for beneficiaries to follow the status of payment requests** and be constantly up to date concerning the percentage of payment execution.

4.2.   Drawbacks to usefulness and performance

Despite the beneficiaries' and authorities' consensus that Balcão2020 has simplified and sped up the management and implementation of the ESI Funds programmes, some beneficiaries flagged drawbacks of the system. For example, **although Balcão2020 accepts e-signed documents, it does not have an embedded e-signature feature. However, this service is under implementation and is expected to become available in February 2022.** Another weakness of the system raised during interviews with some of the beneficiaries is that it does not allow larger files to be uploaded (maximum file size of uploaded documents is 10 MB), so these must be sent by email. This limitation only affects a minority of the interviewed beneficiaries, depending on their sector and the nature of their financed projects.

As shown from Figure 6 below, just over half of the beneficiaries agreed that the system allows the user to carry out their tasks flexibly with their preferred workflow. Similar results were found in terms of adequate response time and stability of the system (also during times of high traffic, e.g., call for tender deadlines). These results are low compared to the results of the other statements in this survey question. However, some beneficiaries stated that over the years, they witnessed an improvement of Balcão2020 in the latter respect and reported that it has become faster and more agile.

4.3.   User-friendliness and user satisfaction

Most users described Balcão2020 as easy to use. Most of the beneficiary survey respondents agreed that the user interface is easy to operate (78%), that the system is clear and self-explanatory (81% of respondents), and that it helps users understand which step to follow to complete their tasks. However, almost all beneficiaries (94%) stated that they needed some time to get familiar with the tool, but they learned how to carry out their task increasingly more efficiently with practice. In any case, the detailed user manuals and FAQs are considered very useful for learning. Some of the interviewed beneficiaries also

highlighted that the difficulties they faced when first approaching the system were partly due to the burdensome procedures required by the funding instruments rather than to the system itself.

Figure 6. Balcão2020 user-friendliness
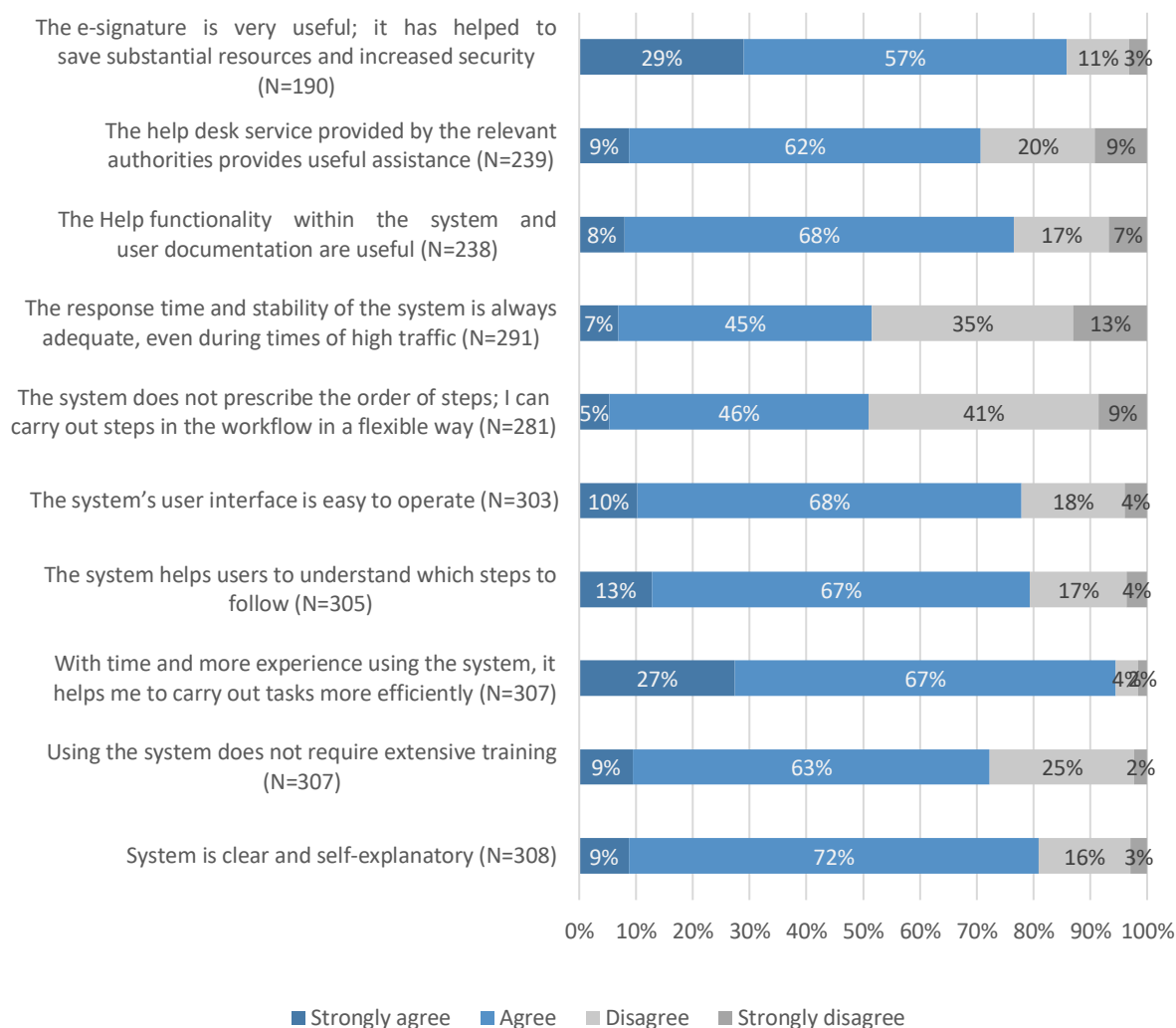
Source: PPMI Consortium – Beneficiary survey - Question 18: "Do you agree or disagree with the following statements describing the user-friendliness and effectiveness of the indicated electronic data exchange system you used:"

4.4. Help-desk organisation and functionality

The system has a dedicated section where beneficiaries can flag issues or ask for help/clarifications. According to interviewed beneficiaries, this section is very easy to use, with little additional information to be entered as part of the request. When filling in the contact form, the user must indicate the type of request to identify the nature of the specific need and request and be automatically redirected to the right office/authority (e.g., IT Team for solving technical issues, MAs for issues concerning the project). The helpdesk functionality is considered useful by the interviewed beneficiaries, who highlighted that this feature improved the communication between them and the authorities since they can keep track of the progress of their requests and receive the requested support.

5.   Good practices, challenges and lessons learnt

This section presents a synthesis of the good practices and lessons learnt of the Portuguese e-Cohesion system that have been uncovered through this case study. The aim is to provide effective solutions for the other Member States, as well as identify the pitfalls and mistakes that may occur when implementing e-Cohesion systems; in this way, we facilitate policy learning and knowledge sharing, which can inform and underpin efforts to set up and/or improve e-Cohesion systems in the 2021-2027 programming period.

5.1.   Good practices

One of the main strengths of Balcão2020 is that it is used across funds and programmes and hence provides a unique access point for the exchange of information and documents between most public authorities and beneficiaries. This makes it possible to have harmonised and standardised procedures across OPs. The effects of such standardisation and the procedural simplification stemming from the introduction of the system are considered very positive. This is especially true for beneficiaries who highlighted that the introduction of the system encouraged them to apply for EU funding. Portuguese beneficiaries learn to use a single tool to apply for any ESI fund. Thanks to learning by doing, this generates important economies of scale and time savings.

A centralised system such as Balcão2020 is successful if it is built following a participatory approach, involving the authorities in the "embryonic" development phases, to ensure that all the different needs are considered, that best practices and the specific management and information systems (used by each MA) can be smoothly harmonised within the central e-Cohesion system. **Having a dedicated body, such as the Portuguese Cohesion and Development Agency in this specific case, to oversee the development of the e-Cohesion system is certainly an influential factor.**

Balcão2020 is generally described as user-friendly and easy to use, allowing the beneficiaries to keep track of the progress of any step of the project life cycle clearly and intuitively. Having a clear view of the development of the projects and payments' status and the possibility of retrieving the previously entered information reduces excessive communication between authorities and beneficiaries. It also makes it possible to increase the security and availability of data. Furthermore, **automatic calculation and automatic embedded controls in the system reduce errors and save time, preventing mistakes that would otherwise result in lengthy and burdensome procedures**. Whilst these functionalities are part of the minimum requirements of the e-Cohesion initiative; they constitute good practices. They have the merit to increase the user-friendliness of the tools significantly while reducing redundant communication and errors, with consequential important gains in terms of time saved, both from beneficiaries and authorities. **To have a system with these characteristics, it is vital to consider authorities' and beneficiaries' needs and feedback systematically, early on during the system development phase and during the actual use. Integration of user feedback in system development is a good practice example that enables the efficient design and implementation of necessary functionalities.**

The experience of the 2014-2020 programming period suggests that user-friendliness is a key element of a successful e-Cohesion system. Therefore, in the next programming period, the Portuguese Cohesion and Development Agency will update Balcão2020, starting from users' needs, making it even more agile, intuitive, and introducing new technologies. **They will further develop the system based on the concept of "user journey", a technique that consists in mapping the users' experience in every step of their interaction with the system to highlight bottlenecks and weaknesses and, consequentially, update the tool to enhance the users' experience even more**. Therefore, this system

development/update approach is another good practice that could be easily transferred to other contexts.

The interoperability with a wide set of national/regional systems and registers represents another key strength of Balcão2020. It makes it possible to pre-fill information based on the data contained in other documents/repositories. It facilitates the work of the authorities, e.g., in the verification of the information provided. This results in less time spent managing the projects and reducing the risk of fraud. Establishing interoperability with other systems can be legally and technologically complex since legal and technical limitations of other systems could constrain or even prevent interoperability. A strategy at the national level that enforces the once encoding principle and, more in general, digitalisation of the Public Administration are key factors that highly encourage and simplify this process. The interoperability with SFC2014 saves the institutional users time and reduces administrative burden as the relevant information is submitted automatically.

5.2. Barriers, challenges, and lessons learnt

Balcão2020 will be used for the upcoming programming period 2021-2027. The interviewed authorities highlighted that the system would be further developed to comply with the new requirements set out in the new CPR. Furthermore, the system will undergo other updates to improve its user-friendliness, mostly based on user feedback. Despite the interoperability with other systems/registers being already quite extensive, in the next years, the Portuguese Cohesion and Development Agency will further extend the interoperability of Balcão2020 to ensure that all the information needed to further minimise the risk of fraud is available in the e-Cohesion system.

Based on the results of the authority survey and the interviews with institutional users and authority representatives, **the main challenges for further strengthening the interoperability of Balcão2020 are related to a lack of a legal framework that enforces the principle of only once encoding at the national level. Interoperability with other systems/databases often implies the exchange of sensitive information and, in some cases, the GDPR requirements represent an obstacle. Consequently, the interviewed authorities highlighted that burdensome regulatory adaptation procedures were necessary, and these may slow down the implementation of e-Cohesion.** Despite the mentioned challenges, it is worth highlighting again that the Portuguese Cohesion and Development Agency has already managed to promote interoperability with a wide range of existing systems/registers. This has significantly simplified the work of both authorities and beneficiaries.

In the next few months, other features to simplify the use of the system will be introduced. For example, **the e-signature functionality will be made available in February 2022. In April, a call centre will be set up to strengthen the helpdesk service further and reduce the response time to users' requests.**

5.3. Summary

In the 2014-2020 programming period, the Portuguese Cohesion and Development Agency was successfully set up. It developed a centralised e-Cohesion system that allows a smooth exchange of information between public authorities and beneficiaries. The system, Balcão2020, facilitates the access to, management and implementation of the ESI Funds by promoting the standardisation of procedures. **The analysis of Balcão2020 presented in this report has highlighted several key elements that can be considered good practices in developing and improving an e-Cohesion system.**

Box 3. Summary of good practices

> **Good practice examples showcased by Balcão2020:**
>
> - Balcão2020 is **focused on user experience; it is agile, user-friendly, and simple**. To have a system with these characteristics, it is vital to take into consideration authorities and beneficiaries' needs and feedbacks systematically, early on during the system development phase as well as during the actual use;
>
> - A **centralised system like Balcão2020 promotes the standardisation of procedures across MAs and OPs**, simplifying the management and implementation of the projects and saving time and costs;
>
> - **Interoperability with other national/regional systems and registers is essential**. It makes it possible to pre-fill information based on the data contained in other documents/repositories. It facilitates the work of the authorities, e.g., in the verification of the information provided or in detecting double funding applications. All these results not only in less time spent on the management of the projects but also reduces the risk of fraud;
>
> - **Interoperability with SFC saves time and reduces administrative burden** thanks to the automatic transmission of information.
>
> - Functionalities such as **automated calculations make it possible to minimise mistakes** when entering information into the system. This saves both authorities and beneficiaries' time;
>
> **Making sure that each user can easily consult the information uploaded** in the system and **keep track of the progress of the projects and payment requests** is one of the most appreciated features of Balcão2020, which is certainly a good practice that could be transferred to other e-Cohesion systems.

Annex

List of interviewees

No.	Institution	Type of interview	Date of the interview
1	Portuguese Cohesion and Development Agency	Policy Perspective / Technical	21 December 2021
2	Portuguese Cohesion and Development Agency	Policy Perspective / Technical	21 December 2021
3	Portuguese Cohesion and Development Agency	Policy Perspective / Technical	21 December 2021
4	Audit Authority	Institutional Perspective	22 December 2021
5	Managing Authorities	Institutional Perspective	9 December 2021
6	Delox	Beneficiary Perspective	3 December 2021
7	Association of Municipalities Quadrilátero Urbano (Associação de Municípios de Fins Específicos Quadrilátero Urbano)	Beneficiary Perspective	3 December 2021
8	Municipalities of Chaves	Beneficiary Perspective	8 December 2021
9	ERASE (AGRUPAMENTO PARA A REGENERAÇÃO AMBIENTAL DOS SOLOS DE ESTARREJA, A.C.E)	Beneficiary Perspective	6 December 2021
10	Institute of Forests and Nature Conservation, IP-RAM	Beneficiary Perspective	6 December 2021
11	Municipality of Sernancelhe	Beneficiary Perspective	6 December 2021
12	EDIA - Development and Infrastructure Company of Alqueva	Beneficiary Perspective	7 December 2021
13	Aps	Beneficiary Perspective	7 December
14	Management Structure of the Financial Instrument for Urban Rehabilitation and Revitalization - IFRRU 2020	Beneficiary Perspective	9 December 2021

No.	Institution	Type of interview	Date of the interview
15	APICCAPS – Portuguese Footwear, Components and Leather Goods Manufacturers' Association	Beneficiary Perspective	9 December 2021
16	Unbabel	Beneficiary Perspective	9 December 2021
17	Coimbra's Municipal Urban Transport Services	Beneficiary Perspective	9 December 2021
18	REN - National Electricity Network	Beneficiary Perspective	9 December 2021
19	Association of Municipalities Parque das Serras do Porto	Beneficiary Perspective	10 December 2021
20	Municipality of Peniche	Beneficiary Perspective	10 December 2021
21	Escola Superior de Enfermagem de Coimbra	Beneficiary Perspective	10 December 2021
22	CIMAC – Intermunicipal Community of Central Alentejo	Beneficiary Perspective	13 December 2021
23	National Laboratory of Energy and Geology	Beneficiary Perspective	13 December 2021
24	Varisom	Beneficiary Perspective	16 December 2021
26	EGF – Environmental Global Facilities	Beneficiary Perspective	10 December 2021
27	Cycloid	Beneficiary Perspective	10 December 2021

Various literature and other sources

Azores Region, 2016. Guia de apoio ao preenchimento do formulário de candidatura. Aviso nº 01/rait/2016 / aviso nº 02/rait/2016 regime de apoio a infraestruturas de transportes (região autónoma dos açores) eixo iv – compete 2020. Available at: https://www.compete2020.gov.pt/concursos/detalhe/Aviso-01RAIT2016

EPRS, 2021. Study on "Digitalisation of European reporting, monitoring and audit. European added value assessment". European Parliamentary Research Service. October. Available   at: https://www.europarl.europa.eu/RegData/etudes/STUD/2021/694229/EPRS_STU(2021)6 94229_EN.pdf

Ernst & Young, 2019. Background study for the Preparation of the Implementation Structure for the 2021+ Period. Available at: https://dotaceeu.cz/getmedia/7fc9a367-c69d-49b2-b0b0-601f9de82ba6/2021-_Final-Report.pdf.aspx?ext=.pdf

European Commission, 2014. Commission Implementing Regulation (EU) No 1011/2014 of 22 September 2014 laying down detailed rules for implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council as regards the models for submission of certain information to the Commission and the detailed rules concerning the exchanges of information between beneficiaries and managing authorities, certifying authorities, audit authorities and intermediate bodies. OJ L 286, 30.9.2014

European Commission. 2017. Questions & Answers on e-Cohesion Programming period 2014-2020 (ERDF, Cohesion Fund and ESF), EGESIF_17-0006-00, 06/04/2017

European Parliament and Council, 2013. REGULATION (EU) No 1303/2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund. December.

European Union, 2021. Regulation (EU) 2021/1060 of the European Parliament and of the Council of 24 June 2021 laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy.

OECD, 2020. Territorial Reviews, Regional Policy for Greece Post-2020, Published on October 1. Available at: https://www.oecd.org/cfe/regional-policy-for-greece-post-2020-cedf09a5-en.htm

Portuguese Government, 2014. Partnership Agreement 2014-2020, available online at: https://ec.europa.eu/info/publications/partnership-agreement-portugal-2014-20_it

Vila do Conde, 2020. BALCÃO2020 - QUESTÕES DE APOIO, VILA DO CONDE available online at: https://www.viladoconde2020.pt/balcao-2020-questoes-de-apoio/