



Overview of b-on Usage at INESC TEC

November 2025



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Introduction

The Online Knowledge Library (b-on) provides access to a wide range of scientific publications, playing an essential role in strengthening the capacity for research and innovation of Portuguese higher education and research institutions.

In 2024, INESC TEC formally joined b-on with the objective of broadening researchers' access to high-quality scientific literature, thereby enhancing the institution's scientific output, collaboration, and visibility. This membership marked an important step in consolidating research support infrastructures, in line with the strategy of promoting open science and scientific excellence.

The purpose of this report is to assess the use and impact of b-on at INESC TEC during the period from October 2024 to October 2025, identifying usage trends, access patterns, and researchers' perceptions regarding the usefulness and relevance of the service. It also aims to identify opportunities for improvement, namely in terms of institutional support, training, and internal communication, thus contributing to a more effective and strategic use of the available resources.

The analysis is based on two complementary sources of information:

- Data collected via the CELUS platform, which allow the characterisation of the volume and types of access to b-on;
 - The CELUS platform adopts the COUNTER methodology to ensure that the data are reliable, consistent, and comparable. COUNTER follows international standards for the collection of data on the use of scientific resources, ensuring that the information obtained is representative of access and consultation trends.
 - In the case of INESC TEC, coverage of COUNTER 5 reports stands between 84% and 85%, meaning that complete data are available for the vast majority of months within the analysis period. This ensures a representative and robust sample for analysis. For further details on this methodology, please consult <https://www.countermetrics.org/>.
- Data obtained through a feedback form completed by INESC TEC researchers, reflecting their experience and perception of the service.

Together, these elements provide a comprehensive picture of b-on usage at INESC TEC and support evidence-based decision-making regarding the future management of this resource.

Analysis of CELUS Data

The CELUS platform is a tool that makes it possible to monitor both the level of use and the type of content accessed through b-on, providing indicators on the consultation behaviour of INESC TEC users.

During the period under analysis (from October 2024 to September 2025), a total of 62,467 interactions were recorded (Figure 1), understood as actions of effective use - namely full-text article accesses, abstract views, content searches, and consultations of scientific databases. These records are distributed across 639 distinct days, resulting in a daily average of around 98 interactions, which demonstrates steady and consistent use of b-on by researchers.

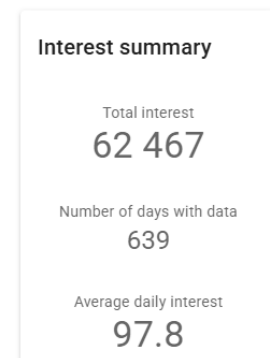
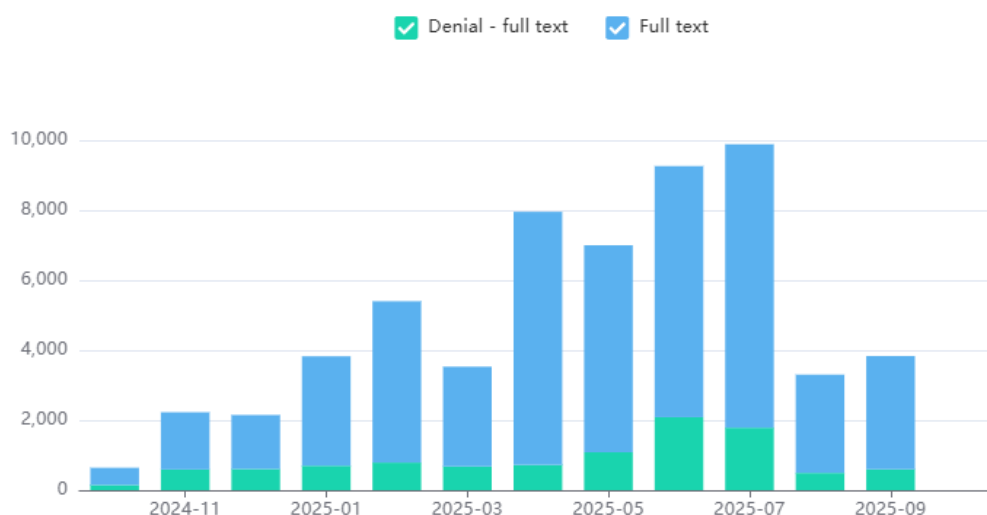


Figure 1 - Summary of b-on Usage at INESC TEC

The monthly trend illustrated in Graph 1 shows a marked increase in b-on usage between early 2025 and the summer of 2025, with peak activity periods in April, June, and July 2025. During these months, the number of accesses reached or exceeded 8,000 records per month, suggesting intensified demand for scientific information.

Graph 1 distinguishes between successful accesses to full text (Full text) and denied accesses (Denial).

Accesses classified as “Denial” correspond to attempts to consult content not included in the b-on subscription, or to accesses that could not be completed due to technical or authentication issues. The presence of these cases shows that the majority of searches lead to successful full-text access, confirming that the coverage and relevance of the resources available through b-on adequately meet the needs of INESC TEC researchers.



Graph 1 - Monthly Evolution of b-on Accesses, Based on CELUS Data

Note:

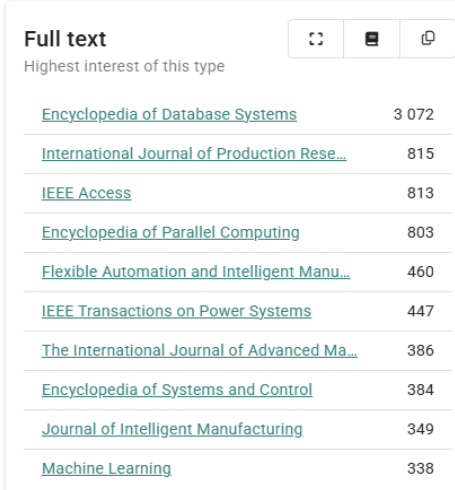
According to information provided by the b-on support team, there is no usage data prior to INESC TEC's subscription to b-on, which makes direct comparisons with earlier periods impossible. Nevertheless, based on the usage recorded since that date, the volume of accesses and denied attempts (denials) is consistent with what would be expected for institutions with a similar profile.

Additionally, b-on clarifies that some publications authored by INESC TEC researchers may have been recorded under other institutional affiliations, namely the University of Porto and the University of Minho, due to the dual affiliation of several researchers. This factor should therefore be taken into account when interpreting publication data and access metrics.

Among the most frequently consulted full-text publications (Figure 2) - which may correspond to scientific journals or to books and reference works - the following stand out:

- Encyclopedia of Database Systems (3 072 accesses);
- International Journal of Production Research (815);
- IEEE Access (813);
- Encyclopedia of Parallel Computing (803);
- Flexible Automation and Intelligent Manufacturing (460).

These results demonstrate a pattern of interest strongly aligned with the fields of engineering, computing, automation, and intelligent systems, reflecting INESC TEC's scientific profile.

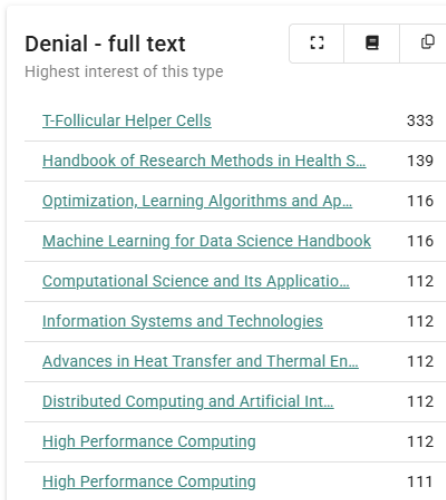


Full text	
Highest interest of this type	
Encyclopedia of Database Systems	3 072
International Journal of Production Rese...	815
IEEE Access	813
Encyclopedia of Parallel Computing	803
Flexible Automation and Intelligent Manu...	460
IEEE Transactions on Power Systems	447
The International Journal of Advanced Ma...	386
Encyclopedia of Systems and Control	384
Journal of Intelligent Manufacturing	349
Machine Learning	338

Figure 2 - Most Frequently Consulted Full-Text Publications

With regard to denied accesses (Denial – full text, Figure 3), these correspond to attempts to consult publications not included in the b-on subscription, or to situations where the access request could not be completed due to technical or authentication issues. Among the most requested items are titles of high scientific interest, such as:

- T-Follicular Helper Cells;
- Handbook of Research Methods in Health Social Sciences;
- Optimization, Learning Algorithms and Applications;
- Machine Learning for Data Science Handbook.



Denial - full text	
Highest interest of this type	
T-Follicular Helper Cells	333
Handbook of Research Methods in Health S...	139
Optimization, Learning Algorithms and Ap...	116
Machine Learning for Data Science Handbook	116
Computational Science and Its Applicatio...	112
Information Systems and Technologies	112
Advances in Heat Transfer and Thermal En...	112
Distributed Computing and Artificial Int...	112
High Performance Computing	112
High Performance Computing	111

Figure 3 - Most Requested Publications with Denied Access

The recurring presence of works related to machine learning, data science, computational engineering, and health sciences suggests that denied requests focus on areas of active research at INESC TEC, indicating a genuine need for resources that complement those already available through b-on.

Overall, it can be concluded that the CELUS platform constitutes a strategic tool for supporting the management of access to scientific information, enabling the quantification of b-on's impact, the identification of the most relevant sources, and the monitoring of trends in researchers' usage behaviour within the institution.

Researcher Feedback Collection Form

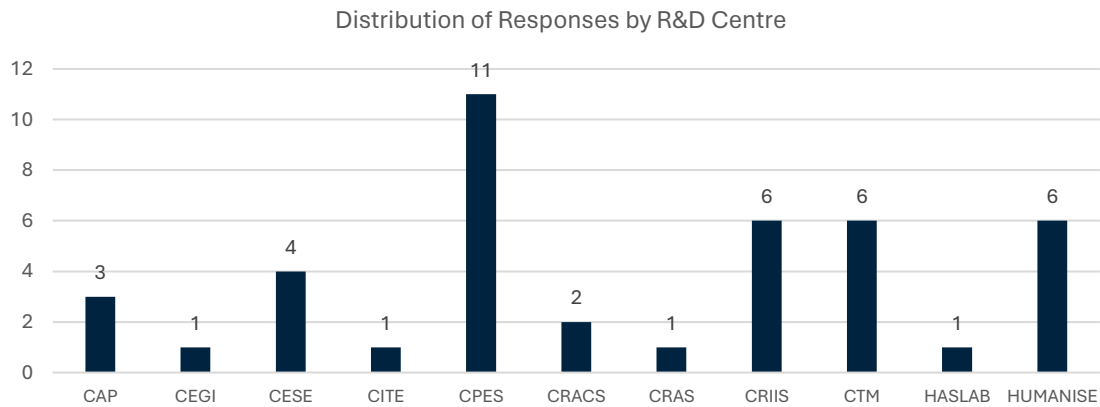
Form: <https://forms.cloud.microsoft/e/zQKK3dwXmG>

1. Sample

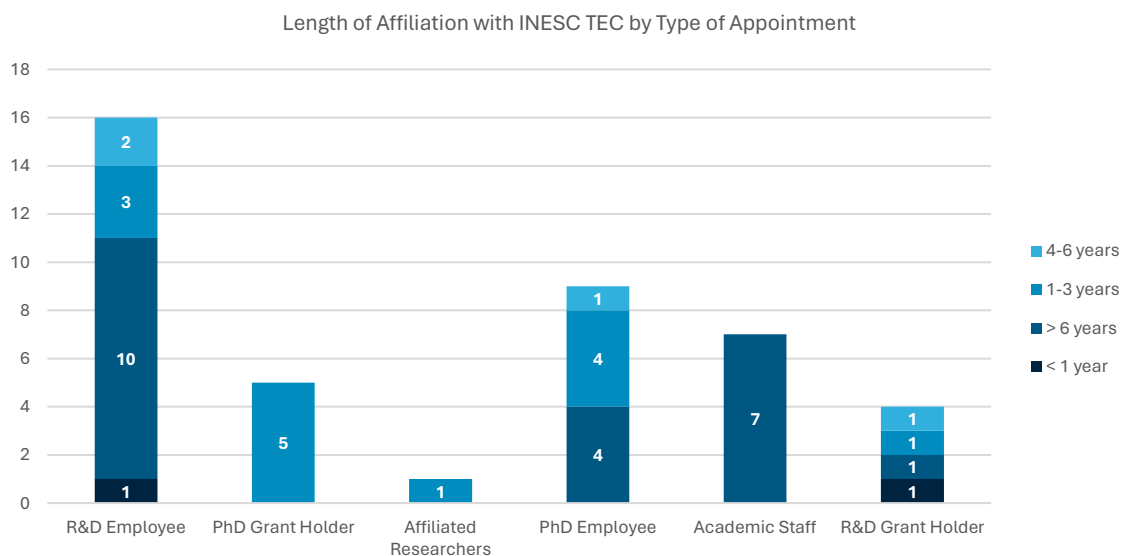
The survey on the use and impact of b-on at INESC TEC received 42 responses, representing contributions from 11 R&D centres (Graph 2).

In terms of institutional affiliation, 36% of respondents are R&D contracted staff, 21% are PhD-level R&D staff, and 17% are higher education teaching staff. The remaining respondents include PhD fellows, research fellows, affiliated researchers, among others (Graph 3).

Regarding length of affiliation with INESC TEC, 52% of participants reported being at the institution for more than six years, while 48% have been at INESC TEC for less than six years (Graph 3).



Graph 2 - Distribution of Responses by R&D Centre



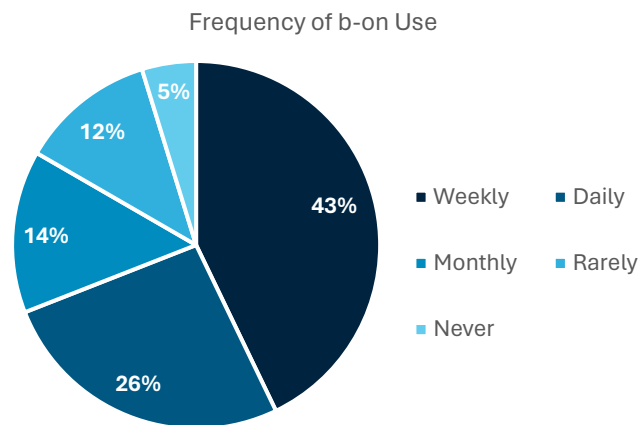
Graph 3 - Length of Affiliation with INESC TEC by Type of Appointment

2. b-on Usage Patterns

The responses collected make it possible to identify the main patterns of b-on usage at INESC TEC, both in terms of frequency of access and the purposes associated with its use in the context of scientific research.

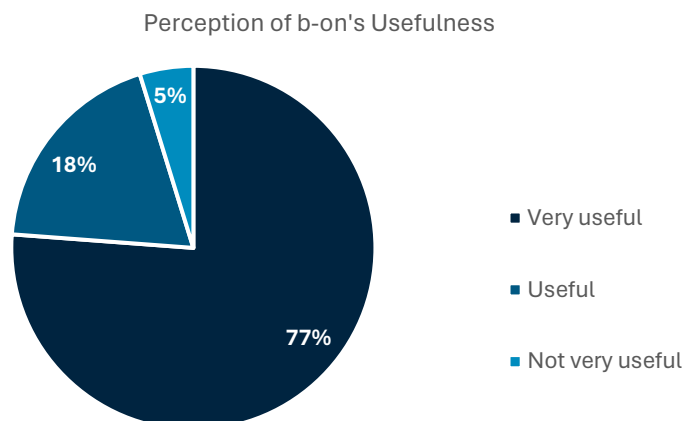
▪ Frequency of Use and Perception of b-on's Usefulness

The analysis of the responses shows that b-on is a resource used by the majority of researchers in the sample. Around 70% of respondents access the platform weekly or daily. 26% report accessing it monthly or rarely, and 5% indicate that they do not use b-on (Graph 4).



Graph 4 - Frequency of b-on Use

When asked about the usefulness of b-on in the development of their research work, the responses are predominantly positive. The vast majority of participants (77%) consider b-on to be “very useful”, while 18% classify it as “useful” and 5% consider it “of little use” (Graph 5).



Graph 5 - Perception of b-on's Usefulness

- **Purposes of Use and b-on Coverage**

The responses to the following questions provide a more detailed understanding of the types of content accessed by researchers through b-on, the purposes for which they use the platform, the publishers most frequently consulted, and the extent to which b-on meets their needs for access to scientific information.

- **Type of Content Accessed**

The analysis of the responses shows that the most frequently accessed content through b-on consists of scientific articles, followed by e-books, journals, book chapters, and specialised databases.

- **Purposes of Use**

Regarding the purposes of use, the responses indicate that b-on is used primarily for bibliographic research in support of publications and for literature or state-of-the-art reviews. Respondents also mentioned accessing recommended articles, supporting teaching activities, supervising students, preparing project proposals and presentations, as well as conducting research more broadly.

Overall, b-on is regarded as an essential working tool that supports the development of scientific activity.

- **Most Frequently Consulted Publishers and Databases**

Among the publishers and databases most frequently mentioned, the most prominent are Elsevier, Springer, IEEE, Wiley, and Taylor & Francis, which are also those most relevant to the INESC TEC scientific community. These platforms concentrate a substantial share of the content of interest to the institution's areas of activity.



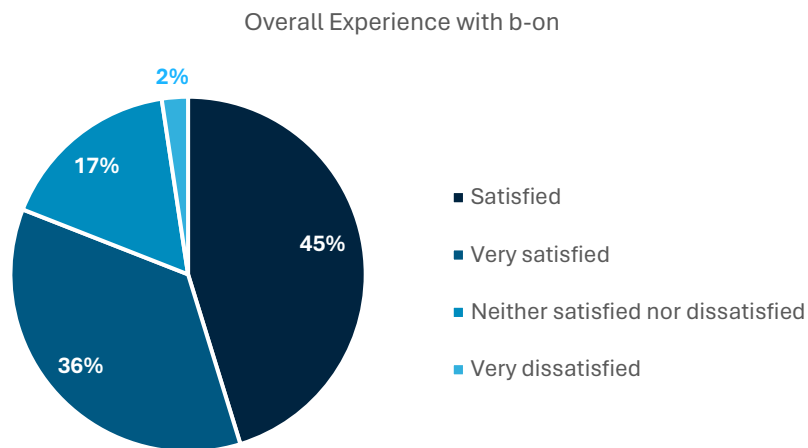
- **Coverage of Researchers' Access Needs**

When asked whether b-on covers the journals and publishers required for their work, most researchers consider the coverage to be adequate or almost complete, although five participants reported the absence of certain journals, namely *Nature*, *Emerald*, *Cell Press*, and *MIT Sloan Review*.

- **Overall Experience with b-on**

Regarding the overall experience with b-on, the perception is broadly positive. 45% of respondents state that they are “satisfied” and 36% “very satisfied”, amounting to more than 80% positive responses. 17% indicate a neutral evaluation, and 2% report being very dissatisfied (Graph 6).

However, it is worth noting that the respondent who indicated being very dissatisfied with the overall experience nevertheless expressed a consistently positive perception of the service throughout the questionnaire, reporting satisfaction with its usefulness and relevance in supporting research.



Graph 6 - Overall Experience with b-on

Overall, the data show that b-on meets the majority of researchers' scientific information needs, contributing consistently to the development of scientific research.

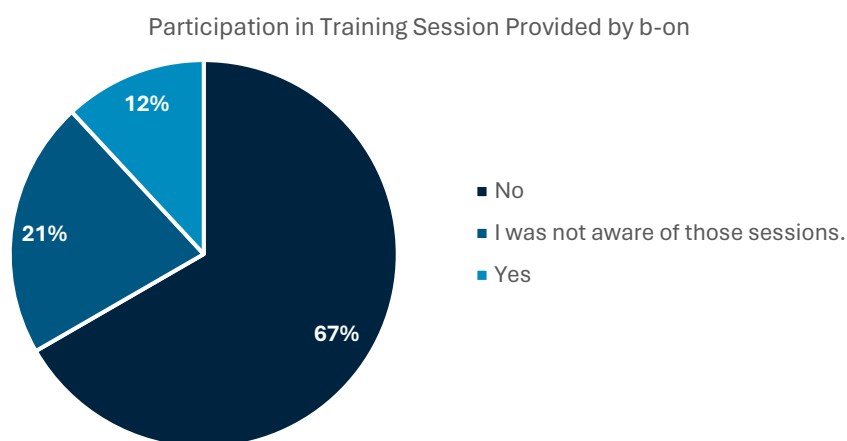
3. Support and Mediation Provided by INESC TEC

- **Need for Technical Support and Information about b-on**

Regarding the need for technical support or information about b-on, 93% of respondents indicated that they had not required any assistance. The remaining 7% mentioned occasional situations related to clarifications on the processing of open access articles covered by INESC TEC’s institutional agreement, accessing articles, and obtaining information on journals with publication costs covered by b-on and the available funding allowance - all of which were resolved.

- **Participation in and Relevance of Training Sessions Provided by b-on**

With respect to participation in the training sessions organised by b-on and disseminated by INESC TEC, 67% of respondents indicated that they had not participated, while 21% reported not being aware of these sessions. Only 12% stated that they had attended training sessions promoted within the scope of b-on.



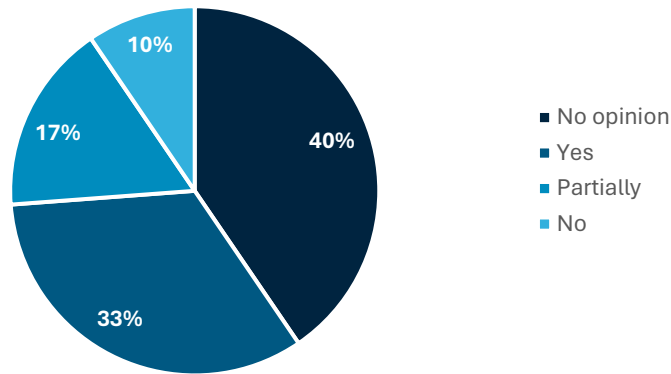
Graph 7 - Participation in Training Sessions Provided by b-on

Among those who participated, the evaluation was positive, with all respondents rating the training sessions as either “very relevant” or “relevant”. These results highlight the need to strengthen internal communication so that a greater number of researchers are aware of and able to benefit from these capacity-building opportunities.

- **Perception of INESC TEC’s Role and Suggestions for Improvement**

Regarding INESC TEC’s role in disseminating and supporting the use of b-on, 33% of respondents consider the support to be adequate, while 17% indicate that it is only partial and 10% believe it has not been adequate. It is also noteworthy that 40% of participants chose not to express an opinion, which may indicate a lack of awareness of the institutional actions related to the promotion and support of b-on.

Has INESC TEC's role in disseminating and supporting the use of b-on been adequate?



Graph 8 - Adequacy of INESC TEC's Role in Disseminating and Supporting the Use of b-on

In the open-ended responses, the comments reinforce an overall positive perception of the service and of INESC TEC's role, highlighting the value attributed to b-on as an essential resource for accessing scientific output. Among the most frequent remarks were expressions of appreciation for the relevance of the service - "This service is highly commendable, as b-on is fundamental for accessing scientific knowledge bases" - and acknowledgements of its importance for the development of research and innovation.

Suggestions for improvement were also mentioned, namely the need to periodically clarify publication quotas and agreements (APCs), strengthen the dissemination of access conditions, and improve the integration of b-on with remote access through INESC TEC's VPN. Some respondents also mentioned being unaware of the service or using it only occasionally, which highlights opportunities to reinforce internal communication and promote greater engagement from the scientific community.

Overall, the results indicate that INESC TEC plays an important role in mediating and supporting the use of b-on, a role that is widely recognised by researchers, although there remains room to increase the visibility and clarity of the information associated with the service.

Conclusions

The analysis carried out indicates that b-on is a relevant resource for use at INESC TEC, although there is still room for internal consolidation and greater valorisation.

Data from the CELUS platform show regular and increasing usage, with peak activity periods. However, access distribution is uneven, and not all researchers appear to use b-on systematically in their work. Although most interactions correspond to successful full-text access, the number of denied access attempts demonstrates demand for content beyond current coverage, particularly in the areas of engineering, data science, and health. This suggests the need to adjust and reassess the subscriptions available.

The survey responses confirm an overall positive perception of b-on's usefulness but also reveal some lack of awareness about the service. While 77% of respondents consider b-on "very useful" and 18% "useful", a portion of researchers acknowledge not fully knowing its potential or not using the service frequently. These results point to differences in information literacy and the need to strengthen communication and training, especially for new users or research groups less familiar with the available resources.

The assessment of institutional support indicates that INESC TEC's role is generally recognised, although still insufficiently visible. Most respondents consider the support "adequate", although uncertainty remains regarding dissemination activities, the existence of training sessions, and the conditions for publication with costs covered by b-on (APCs). This highlights the importance of improving internal communication and establishing clear mechanisms for monitoring and mediation, making the service more accessible and comprehensible for the entire scientific community.

In summary, the use of b-on at INESC TEC is positive but uneven, reflecting both the relevance of the resource and the need for a more proactive institutional strategy of awareness-raising, capacity-building, and monitoring. Strengthening INESC TEC's role as a mediating and promoting entity for access to scientific information will be essential to increase equity in the use of the service and to maximise its contribution to the quality and visibility of the research carried out within the institution.

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