



**Expert Meeting on  
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**First analysis on reorganizing the data collection process of the business accounts survey**

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The Business Accounts Survey conducted by Istat underwent significant changes in its data collection process during 2021. Previously, the survey relied on two Excel questionnaires, one for the Large Enterprises (LE) census survey, targeting enterprises with 250 or more persons employed, and the other the Small and Medium-sized Enterprises (SME) survey, which sampled enterprises with less than 250 persons employed. Istat transitioned from this Excel-based data collection approach to a Computer-Assisted Web Interviewing (CAWI) method, utilizing a web-based questionnaire.

As a basic part of the process, the survey administrators, in collaboration with subject matter experts, reorganized the questionnaire items, in compliance with the internal user requirements and the relevant European regulations for structural business statistics. Specifically, the collaboration focused on the questions related to the income statement, the employment, personnel costs and investments, aiming to make the details of principal variables more consistent with the requirements. Previously unconsidered details were added, especially for the SME survey, and some definitions were modified. Furthermore, the content of the two questionnaires, LE and SME, was harmonized in terms of definitions, labels used, and coding structures. Indeed, this solution made it possible to use the same edit process for both surveys, eliminating the need for separate applications that operated on different systems. This resulted in significant time and resource savings. Additionally, the ability to implement the same rules symmetrically for both surveys further simplified the process.

Efforts were also made to define the underlying rules for questionnaire items, which was an innovative approach compared to the Excel questionnaire, where rules were applied only to collected data. This was achieved by introducing tool-tips to aid in understanding and completing the questionnaire on line, incorporating checking rules to identify and address blocking and non-blocking errors, and designing sections tailored to specific types of enterprises. In order to assist respondents during the survey completion process and enhance the user experience, 209 tooltips have been implemented. The questionnaire comprised a total of 76 coherence checks aimed at ensuring the consistency of the responses provided by the participating enterprises. Within this set

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of checks, 52 were implemented as blocking measures, meaning that the failure to meet the required criteria led to the interruption of the questionnaire completion process. The remaining 24 coherence checks were non-blocking, allowing respondents to continue with the questionnaire even if inconsistencies were detected. These checks provide a preliminary verification of the responses and may require further analysis and rectification. The LE survey, involving 3,991 enterprises for the reference year 2021, received back 3,418 questionnaires, out of which 531 had non-blocking errors. The SME survey, which sampled 77,604 enterprises in 2021, received back 33,613 questionnaires, out of which 5,855 had non-blocking errors.

Another example of improvement is the possibility to append the data from both surveys and use them together. In the past, with the old questionnaires, this procedure required a lot of work and was complex to carry out. However, thanks to the new organization of items and the uniformity of data collection, it has become possible to combine the data from both surveys more efficiently and seamlessly. For example, respondents to the SME survey with more than 250 persons employed (no longer within the scope of the SME survey) can be included in the dataset of respondents from the LE survey

Additionally, considerable emphasis was placed on efficiently managing support tickets, regularly updating Frequently Asked Questions (FAQs) to address technical issues and thematic inquiries.

The entire process not only ensured consistency in data treatment between the two surveys but also resulted in improved data quality.

To evaluate the effectiveness of the new data collection system and its impact on data quality, several indicators will be analysed. These indicators include accuracy, response rate, and the burden placed on respondents. By assessing these metrics, Istat aims to determine the overall performance of the revised data collection process and identify measures for further enhancing data quality.

**Keywords:** statistical data collection, monitoring data collection, data collection tools, data quality improvement measures