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Applications of Statistical Methods and

(Inter)national Standardization

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> Standardization is an activity that, in an organized and recognized way, makes it possible to draw up standard documents, intending to increase the levels of quality, safety, efficiency, and interoperability of processes.

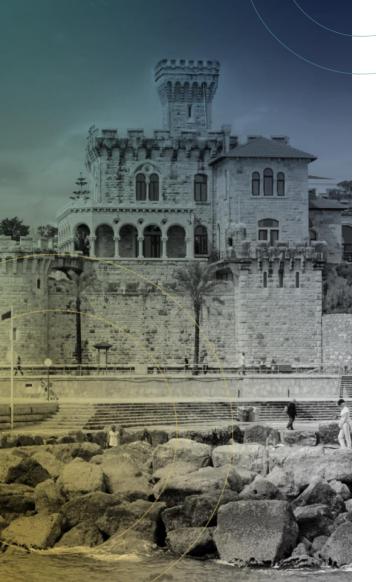
> > ISO

Instituto Português da **O**ualidade









Benefits of using standard documents to reach high quality in Official Statistics

- Resulting from a consensus between experts;
- Based on consolidated results of science, technology, and experience;
- Establish guidelines to guarantee the quality, safety, and efficiency of processes;
- Promote the improvement of systems, reduction of errors, and optimization of resources;
- Promote credibility and trust;
- Approved by a recognised international, regional, and national standardisation body.

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International Standardization Structure of ISO/TC 69

← Technical Committees

Published ISO standards * of which 18 under the direct responsibility of ISO/TC 69

ISO standards under

development *

Participating members

J Observing member

Applications of statistical methods

Reference Title Type ISO/TC 69/SC4 Subcommittee Applications of statistical methods in product and process managment ISO/TC 69/SC5 Acceptance sampling Subcommittee ISO/TC 69/SC6 Measurement methods and results Subcommittee Applications of statistical and related techniques for the implementation of Six Sigma ISO/TC 69/SC7 Subcommittee ISO/TC 69/SC8 Application of statistical and related methodology for new technology and product development Subcommittee ISO/TC 69/CAG Chair's Advisory Group Working group **Bayesian methods Coordination Group** ISO/TC 69/CG1 Working group ISO/TC 69/WG3 Statistical interpretation of data Working group ISO/TC 69/WG12 Big data analytics Working group ISO/TC 69/WG13 Terminology and symbols Working group









National Standardization Structure of IPQ/CT 225

IPQ/CT 225

Aplicação de métodos estatísticos

Referência	Título	Тіро
IPQ/CT 225/GT 04	Aplicações de métodos estatísticos na gestão de processos e produto	Grupo Trabalho
IPQ/CT 225/GT 05	Amostragem de aceitação	Grupo Trabalho
IPQ/CT 225/GT 06	Métodos de medição e resultados	Grupo Trabalho
IPQ/CT 225/GT 07	Ferramentas estatísticas para a implementação da metodologia Seis Sigma	Grupo Trabalho
IPQ/CT 225/GT 12	Big data	Grupo Trabalho
IPQ/CT 225/GT 13	Terminologia e símbolos	Grupo Trabalho









Participations in new projects at ISO level

<u>ISO/TC 69/SC 8</u>

Application of statistical and related methodology for new technology and product development ISO/NP 24108-1 - Grid Square Statistics and their Applications – Part 1: Fundamental Principle of Grid Square Statistics

ISO/TC 69/WG 3

Statistical interpretation of data ISO/NP 24592 – Rules for rounding of numerical values









Projects under development at national level

<u>Project</u>

- GT 04 aNP-ISO 7870-1:2019 Control charts - Part 1: General guidelines
- GT 05 Draft national standard document on "Sampling plans for survey"
- GT 13 aNP-ISO 3534-1:2006

Statistics - Vocabulary and symbols - Part 1: General statistical terms and terms used in probability

aNP-ISO 3534-2:2006

Statistics - Vocabulary and symbols - Part 2: Applied statistics









Conclusions

Standard documents

- Supports innovation approaches for getting quality data;
- Supports new challenges for quality in statistical processes;
- Supports the process to improve the quality of official statistics.











