



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



WELCOME.



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



CPS 02

Quality Management in Statistics Portugal – new challenges in a journey of a life-time

Mrs. Maria João Zilhão

Mrs. Magda Ribeiro

Mrs. Sofia Rodrigues

Statistics Portugal

Monday 17 July, 8:30 PM – 9:40 a.m.

Agenda

- Quality Management System framework and its various domains
- The National Data Infrastructure (NDI)
- The StatsLab – approach to innovation
- Current and future challenges

Quality Management framework - overview

- National and European legislative framework

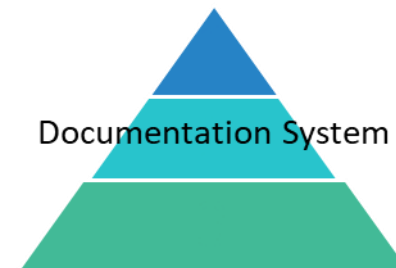
- ✓ NSS Law no. 22/2008, chapter II, Articles 4-9 (Quality Principle)
- ✓ Regulation (EC) No 223/2009 (as amended by Regulation 2015/759), Article 7

- European Statistics Code of Practice

- Statistics Portugal Quality Charter and related Policies and Procedures

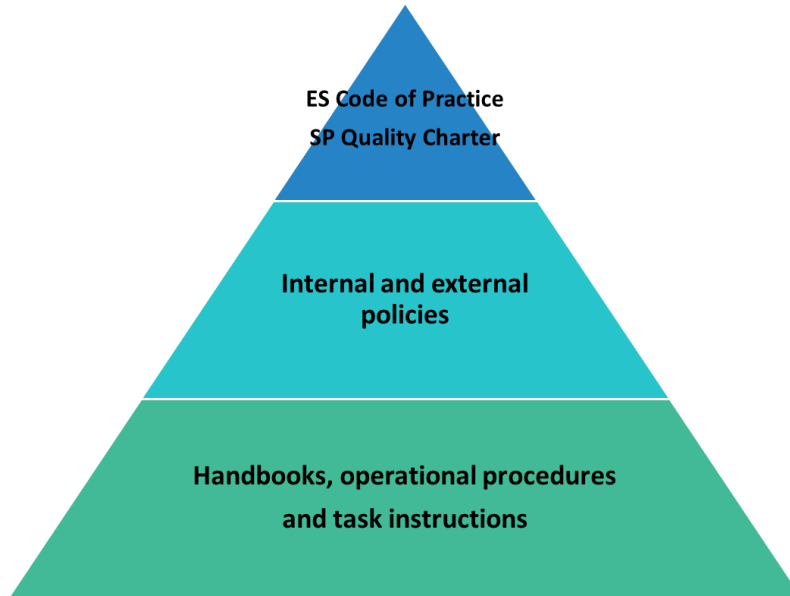
- ISO standards as a reference, e.g.

- ✓ 9001 - Implementation of quality management systems
- ✓ 27001 - Information security, and the 27701 extension – Privacy information management



Quality Management framework – Documentation level

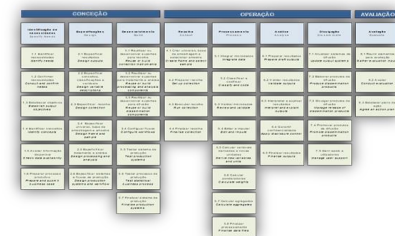
ISO Norms as reference



CONCEÇÃO			OPERAÇÃO			AVALIAÇÃO
Identificação de novas ideias Identify ideas	Desenvolvimento Design	Desseminação Dissemination	Processamento Processing	Avaliação Evaluation	Divulgação Dissemination	Avaliação Evaluation
1.1 Realizar levantamento de ideias 1.1 Conduct survey of ideas	2.1 Realizar levantamento de ideias 2.1 Conduct survey of ideas	3.1 Realizar levantamento de ideias 3.1 Conduct survey of ideas	4.1 Integrar resultados 4.1 Integrate results	5.1 Preparar resultados 5.1 Prepare results	6.1 Avaliar resultados 6.1 Evaluate results	7.1 Avaliar resultados 7.1 Evaluate results
1.2 Definir necessidades 1.2 Define needs	2.2 Definir necessidades 2.2 Define needs	3.2 Definir necessidades 3.2 Define needs	4.2 Preparar resultados 4.2 Prepare results	5.2 Preparar resultados 5.2 Prepare results	6.2 Avaliar resultados 6.2 Evaluate results	7.2 Avaliar resultados 7.2 Evaluate results
1.3 Definir necessidades 1.3 Define needs	2.3 Definir necessidades 2.3 Define needs	3.3 Definir necessidades 3.3 Define needs	4.3 Preparar resultados 4.3 Prepare results	5.3 Preparar resultados 5.3 Prepare results	6.3 Avaliar resultados 6.3 Evaluate results	7.3 Avaliar resultados 7.3 Evaluate results
1.4 Definir necessidades 1.4 Define needs	2.4 Definir necessidades 2.4 Define needs	3.4 Definir necessidades 3.4 Define needs	4.4 Preparar resultados 4.4 Prepare results	5.4 Preparar resultados 5.4 Prepare results	6.4 Avaliar resultados 6.4 Evaluate results	7.4 Avaliar resultados 7.4 Evaluate results
1.5 Definir necessidades 1.5 Define needs	2.5 Definir necessidades 2.5 Define needs	3.5 Definir necessidades 3.5 Define needs	4.5 Preparar resultados 4.5 Prepare results	5.5 Preparar resultados 5.5 Prepare results	6.5 Avaliar resultados 6.5 Evaluate results	7.5 Avaliar resultados 7.5 Evaluate results
1.6 Definir necessidades 1.6 Define needs	2.6 Definir necessidades 2.6 Define needs	3.6 Definir necessidades 3.6 Define needs	4.6 Preparar resultados 4.6 Prepare results	5.6 Preparar resultados 5.6 Prepare results	6.6 Avaliar resultados 6.6 Evaluate results	7.6 Avaliar resultados 7.6 Evaluate results
1.7 Definir necessidades 1.7 Define needs	2.7 Definir necessidades 2.7 Define needs	3.7 Definir necessidades 3.7 Define needs	4.7 Preparar resultados 4.7 Prepare results	5.7 Preparar resultados 5.7 Prepare results	6.7 Avaliar resultados 6.7 Evaluate results	7.7 Avaliar resultados 7.7 Evaluate results
1.8 Definir necessidades 1.8 Define needs	2.8 Definir necessidades 2.8 Define needs	3.8 Definir necessidades 3.8 Define needs	4.8 Preparar resultados 4.8 Prepare results	5.8 Preparar resultados 5.8 Prepare results	6.8 Avaliar resultados 6.8 Evaluate results	7.8 Avaliar resultados 7.8 Evaluate results
1.9 Definir necessidades 1.9 Define needs	2.9 Definir necessidades 2.9 Define needs	3.9 Definir necessidades 3.9 Define needs	4.9 Preparar resultados 4.9 Prepare results	5.9 Preparar resultados 5.9 Prepare results	6.9 Avaliar resultados 6.9 Evaluate results	7.9 Avaliar resultados 7.9 Evaluate results
1.10 Definir necessidades 1.10 Define needs	2.10 Definir necessidades 2.10 Define needs	3.10 Definir necessidades 3.10 Define needs	4.10 Preparar resultados 4.10 Prepare results	5.10 Preparar resultados 5.10 Prepare results	6.10 Avaliar resultados 6.10 Evaluate results	7.10 Avaliar resultados 7.10 Evaluate results

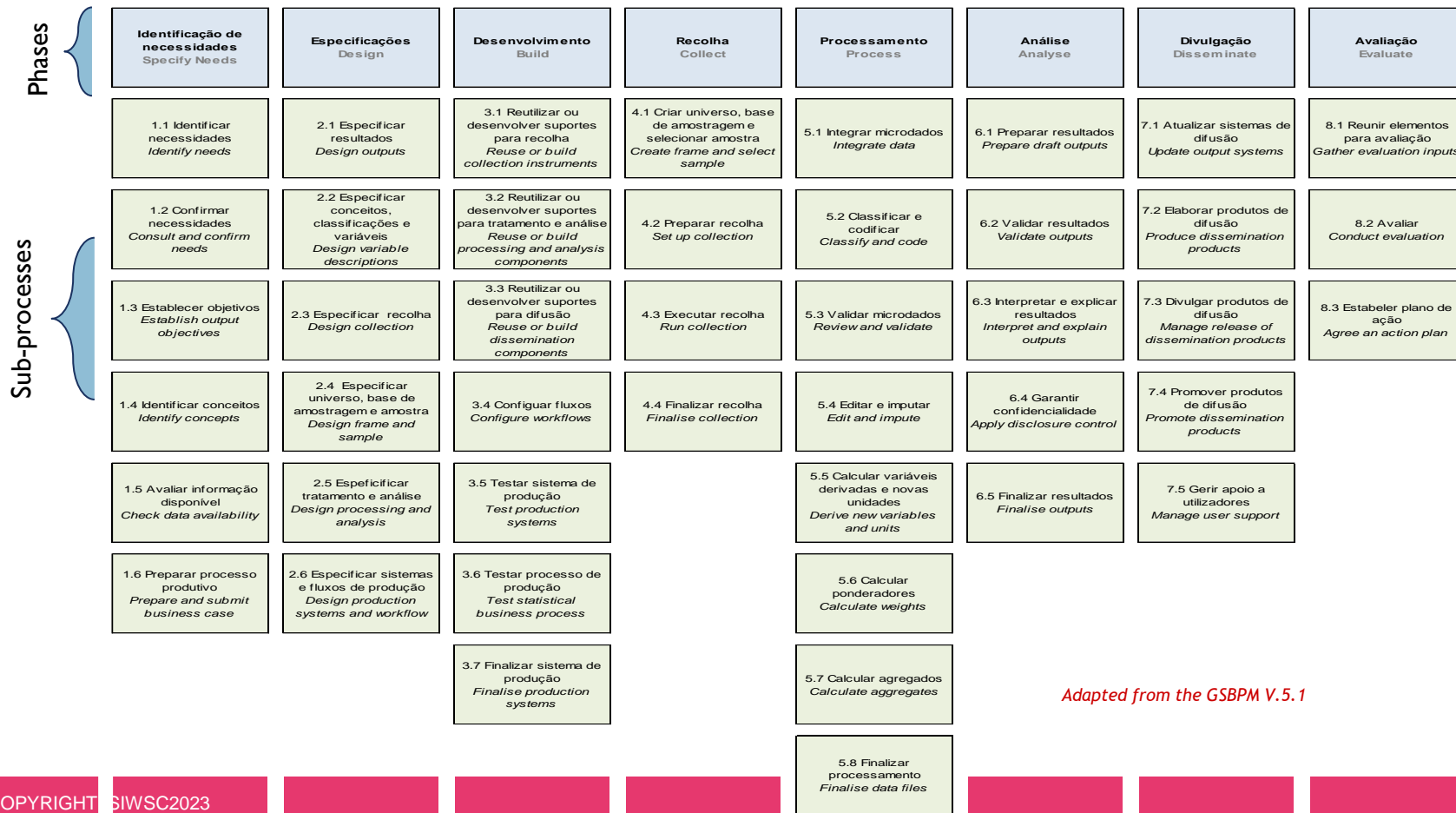
The conceptual model adopted by Statistics Portugal is aligned with the GSBPM (V. 5.1, 2019),

- UNECE, with the addition of one more layer in the **business process matrix**



Describing the Statistical Business Process Model (ii)

Phases and sub-processes



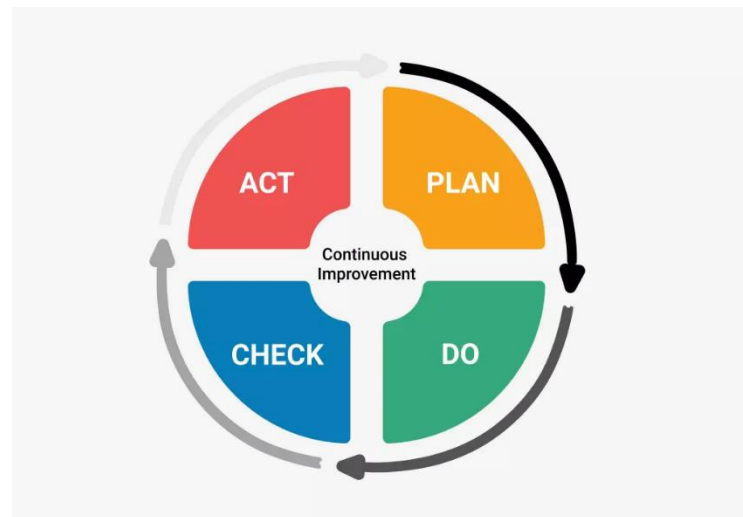
Adapted from the GSBPM V.5.1

- **Important, significant and imperative**

- The information managed by Statistics Portugal, its processes, systems, applications and networks are **valuable assets** for society
- The **guarantee of confidentiality, integrity and availability** of information ensures the **credibility** of the services provided by Statistics Portugal

- **Management**

- 360º application
- Not specific to a business unit, process or timeframe. It's for everyone, everything and every time
- Continuous Improvement with PDCA cycle
- ISO 27001 certification



Quality Management System

The path to ISO 9001 certification

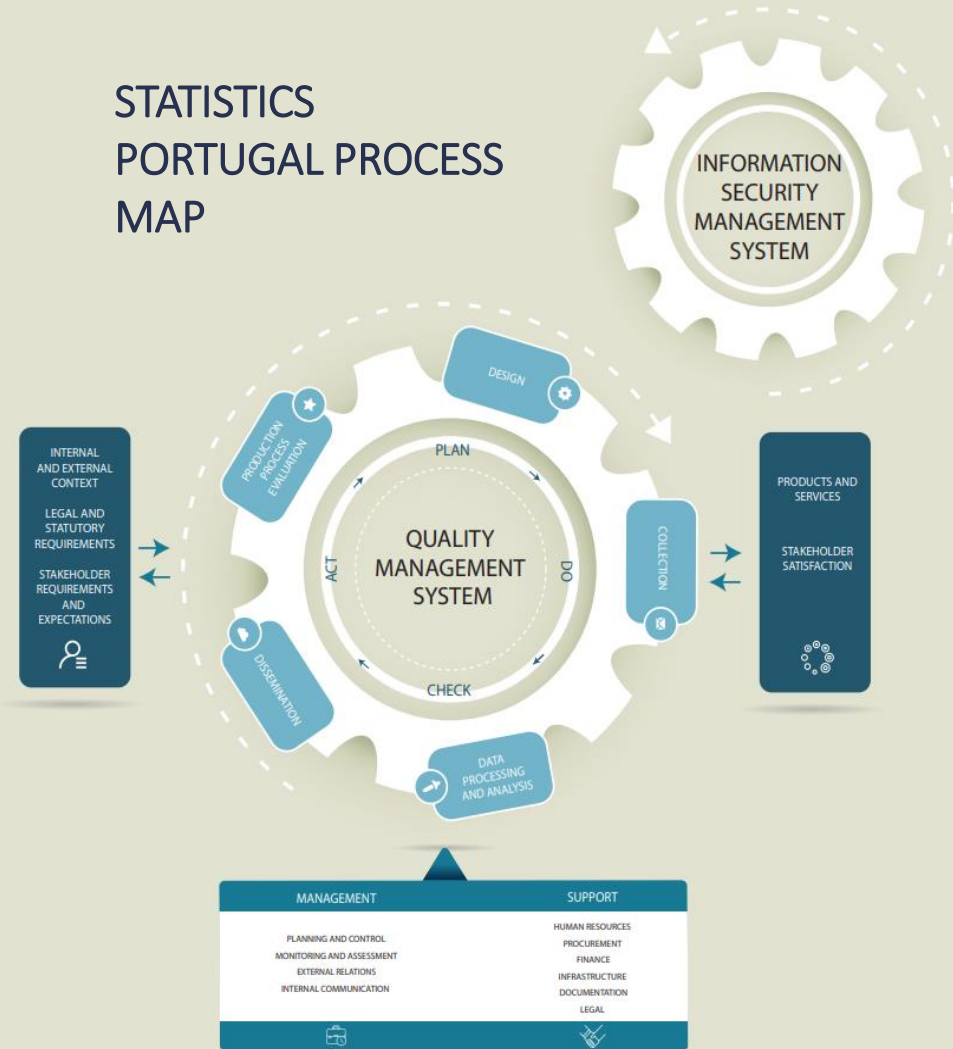
Main tasks:

- Based on the solid experience in using ISO 9000 family norms
- Scope definition and process map
- Systematization of the documentation
- IT documentation system
- Integrated with ISMS
- Internal audit (beginning 2023) and external audit (end 2023)

Basic conditions:

- Strong leadership support
- Involvement of the organisation

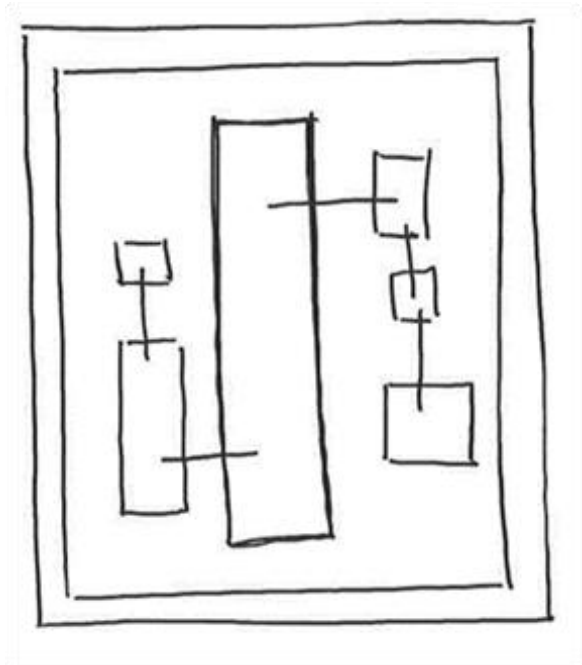
STATISTICS PORTUGAL PROCESS MAP



Specific Training Course for the integration of statisticians in Statistics Portugal special (in accordance with the Annex to Ordinance no. 355/2015, of 14 October)

- The contents of the training course programme are completely aligned with the Statistical Production Process Handbook
- The Statistical Production Process Handbook accompanies each course session so that participants can better understand the process throughout the training
- During the course participants are required to elaborate a work task and make presentations on specific topics, addressing them in the context of the handbook
- One-morning session is organised, where practical work is presented by each participant in connection with the Statistical Production Process Handbook
- On-job training





The Innovation Strategy from 2018
onwards that has been
transforming Statistics Portugal

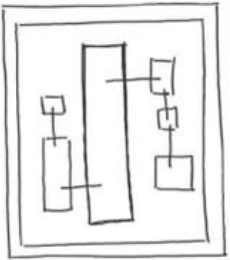


Data driven perspective

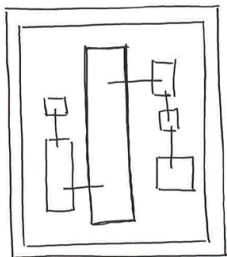


Single dataset, multiple uses

The National Data Infrastructure (iii)

Appropriation and use of administrative data and other sources	Partnerships	New roles
Data integration		Information security and data protection
Innovation	Integrate and share platforms, algorithms, knowledge, ...	Increase the economic and social value of the public good: statistical information

The National Data Infrastructure (iv)



more intensive
and integrated
use of data

substantial
enlargement of
the covered
areas

gain resources,
space
to scale up
innovation

take advantage of
the entire
production chain

CONSUMPTION		PRODUCTION					ENVIRONMENT
Product	Value	Unit	Product	Value	Unit	Product	Value
Food	1234	€	Food	1234	€	Food	1234
Alcohol	567	€	Alcohol	567	€	Alcohol	567
Tobacco	890	€	Tobacco	890	€	Tobacco	890
Non-durable goods	2345	€	Non-durable goods	2345	€	Non-durable goods	2345
Durable goods	678	€	Durable goods	678	€	Durable goods	678
Services	901	€	Services	901	€	Services	901
Government	345	€	Government	345	€	Government	345
Private	789	€	Private	789	€	Private	789
Exports	112	€	Exports	112	€	Exports	112
Imports	333	€	Imports	333	€	Imports	333

intensify the
appropriation and
use of
administrative
data and other
sources

use of new data
extraction
techniques

Increase the
benefits
to society



StatsLab – Statistics under Development, is an area available at Statistics Portugal's website where new statistical products are presented before being finalized, aiming at taking advantage of new data sources and new methodologies

- “Quality label”
- Same statistical process
- Innovative products
- High credibility – trust
- Communication

Quality Management System – current and future challenges

- Quality Management System, aiming at an **ISO 9001 certification**
- Updating the documentation systems - the **statistical business process description** – key for innovation
- Building **partnerships** is a long game – partners for life. Co-responsibility - reciprocity
- Awareness of utility of data
- Sustainability of new conceptual frameworks – new data sources and methodologies
- **Business Strategy**
- Improving quality through **innovation**
- **User perspective**
- Resources
- **Quality as a driver for a culture of change**



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



THANK YOU.