

# A QUALITY ASSURANCE FRAMEWORK FOR EUROSTAT

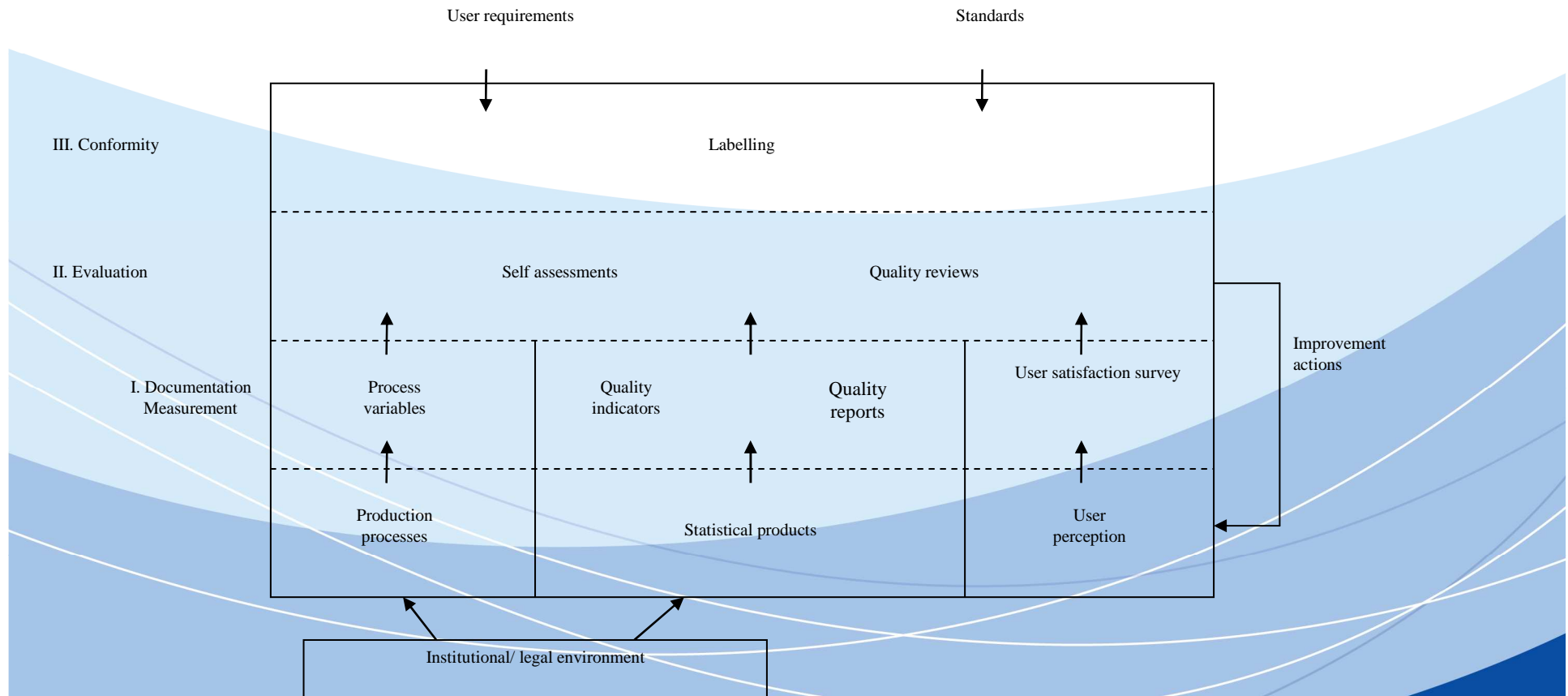
**CCSA MEETING  
Madrid  
10-11 September 2007**

**Antonio Baigorri  
Eurostat**

## Background

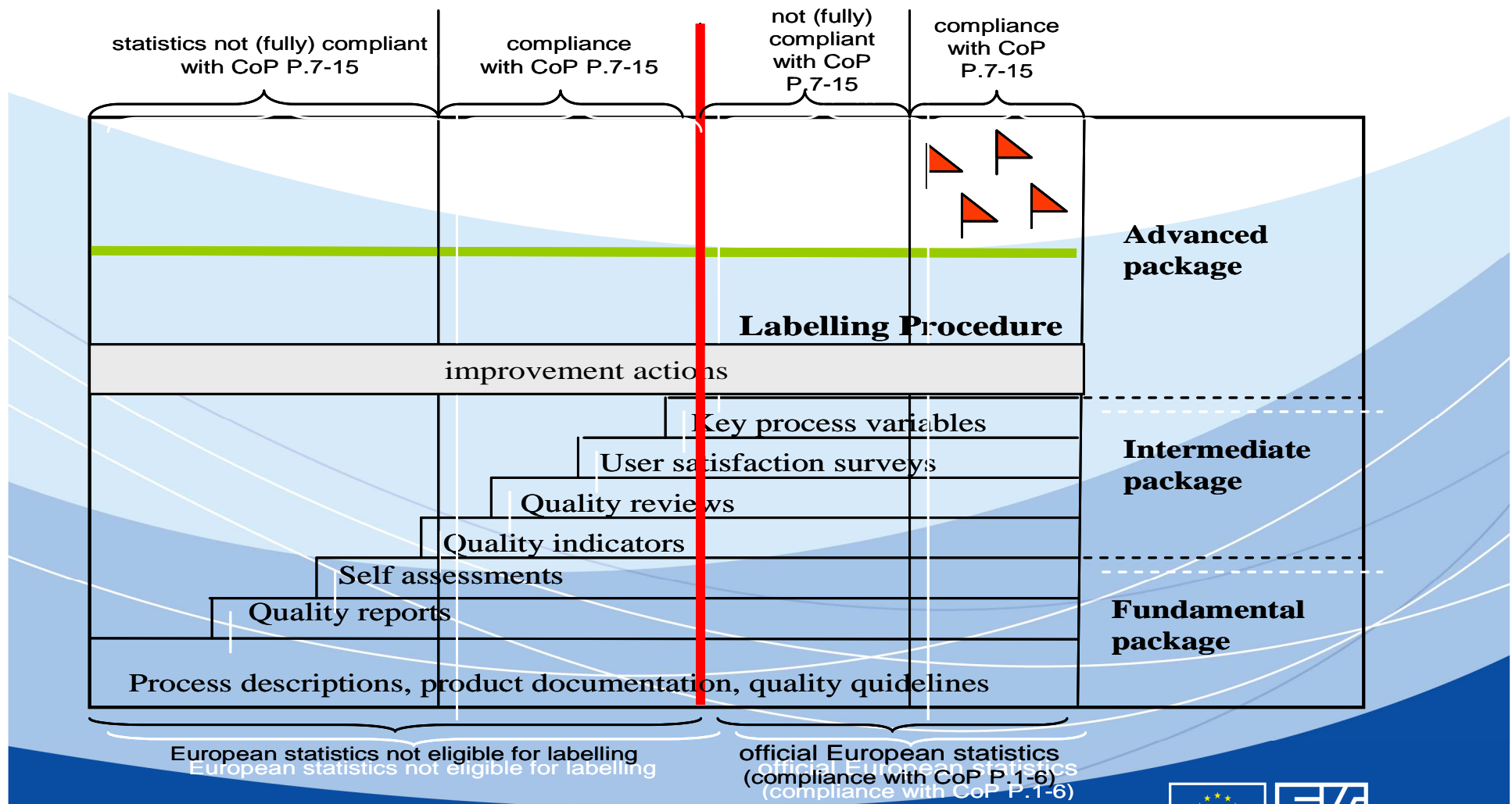
- The European Statistics Code of Practice (CoP)
  - Was adopted to enhance the Independence, integrity and accountability of the ESS
  - It covers principles on the Institutional environment, statistical process and statistical outputs
  - The principles on the institutional environment (1-6, 15) are tackled with peer reviews
  - The principles on individual statistical process and outputs (7, 14) are monitored by QAFs
  
- QAFs establish a system of coordinated methods and tools guarantying
  - the adherence to minimum quality requirements for statistical process and outputs
  - some kind of assessments in the form of quality reviews
  - Focusing on individual statistic rather than the quality of the system as a whole.

# A structure for tools and methods for assessment of statistics production systems



N.B. Figure derived from draft Handbook on Data Quality Assessment Methods and Tools (DatQAM).

# Packages of Eurostat quality assurance activities



N.B. Figure derived from draft Handbook on Data Quality Assessment Methods and Tools (DatQAM)

## The assessment tools and methods in Eurostat

### ■ Documentation and measurement

- Process descriptions (identification, documentation, and analyses of processes) based on the Eurostat process improvement methodology.
- Standard Quality Reports for harmonisation of quality reporting across the European Statistical System.
- Quality profiles for user-oriented summaries of the main quality features of statistical indicators.
- User satisfaction surveys to key users and the public as done for the free dissemination of statistics and the Eurostat user satisfaction survey.

## The assessment tools and methods in Eurostat

### ■ Evaluation

- Self assessments for internal review of statistical production processes (DESAP checklist for the identification of strengths and weaknesses).
- Quality reviews in the form of assessment assisted by the quality team, assessments incorporating external expertise (either from Eurostat or INSs) and rolling reviews of selected statistical production domains conducted by external contractors.

### ■ Conformity

- Process for labelling of European aggregates to inform users, in a clear and simple way, on statistics complying with the CoP

## Application of the assessment methods

### Identification of the relevance of the statistical process

	UNIT	Perio dicity	Legal B.	Type S	Proc. Des	Q Repo rt	Q Revi ew	FTE Staff	Main Oup	%NSI Prod	EST AT Int
<b>Labour Force Survey (LFS):</b>	F2	Q	L	S	Y	2006	Y	6	IND	H	H
<b>Harmonised unemployment rates</b>	F2	M	M	M	Y	2006	N	1.5	IND	M	H
<b>Labour cost index</b>	F2	Q	L	S	Y	2005	N	1.5	IND	H	H
<b>Labour cost survey</b>	F2	4Y	L	S	N	2004	N	2	SIF	H	H
<b>Structure of earnings survey</b>	F2	4Y	L	S	N	2002	N	2	SIF	H	H
<b>Other earnings data (Gentlemen agreement)</b>	F2	Y	G	M	N	N	N	1.5	SIF	M	MM
<b>Time use surveys</b>	F2	7Y	G	S	N	N	N	1	SIF	H	ME
<b>LMP</b>	F2	Y	N	A	Y	N	N	1	SIF	L	LE

Periodic: (M=Monthly, Q=Quarterly, Y= Yearly)

Legal base: (L= Council/EP Reg, M= Mixed, G= Gentlemen Agreement)

Type: (S=Survey, M= Mixed, A=Administrative)

Process Description, (C= Critical, Y, otherwise N)

Quality report: (If yes year, otherwise N)

FTE staff: (Number of full time equivalent staff during the year)

Main output: (IND= Euro Ind/Struc Ind/Sust/Ind/Laken Ind/ Othe Ind/rep Com/Council; Regular PR, SIFor publication; NC= New Cronos or other)

% Producer ( NSI or NCB): (H>75%, 75%>M>25%, L<25%)

ESTAT Intervention in data validation: (H= High, ME= Medium extern. MM= Medium mailbox, LE=Low extern. LM=Low mailbox)

## Application of the assessment methods

### Characterisation of the quality assessments

The assessment Checklist is the common tool used to collect the quality information.

- Outputs from the compilation of the checklist are:
  - The strengths and weaknesses of the process/outputs
  - The list of improvement actions
  - The quality diagram.
- Types of assessments
  - Self-assessments
  - Quality reviews
    - Assessments supported by the quality team
    - Assessments with external interventions
    - Rolling reviews
- Quality reports are a precondition. An exception could be self-assessments where a basic data quality information may be sufficient

## Application of the assessment methods Characterisation of the quality assessments

### ■ Self-assessments

- The process manager fills in the Checklist based on the available quality information,
- The quality team provides support on request.
- The process manager compiles the outputs.

### ■ Assessments supported by the quality team

- The quality team pre-fills the assessment Checklist.
- A first meeting between the process manager and the quality team takes place.
- The quality team draft a first version of the strengths and weaknesses and the list of improvement actions and the quality diagram.
- In a second meeting, the outcome from the assessment are further

## Application of the assessment methods Characterisation of the quality assessments

### ■ Assessments with external interventions

Similar procedure as for the supported assessments incorporating an external element

- To provide technical expertise in the domain being assessed
- To further support the objectivity and validate the results of the review

### ■ Rolling reviews

- Quality reviews of more intensity where the external intervention is essential.
- External contractors monitored by Eurostat.
- User's surveys and contacts with producers.
- Includes cost/benefit analysis.

## Application of the assessment methods

### Mapping of statistical processes with types of quality assessments

- For processes with low periodicity, no legal regulation and low visibility outputs:
  - self-assessments seems to be suitable.
  - the availability of limited quality reports, might be enough,
- For processes involving important financial and human resources, with short-term or yearly periodicity, legal acts and high visibility outputs:
  - Rolling reviews
- For other processes:
  - quality assessments (with external interventions or not)
  - flexibility allowed for the specificities of the process and the opinions/demands of the process owners.

## The work ahead

### Further development and integration of existing methods and tools

- Guidelines for data quality reporting in Community statistical legislation
- Adaptation of the DESAP checklist for international organisations.
- Establishing methods and procedures to be used for quality assessments
- Setting a plan for quality assessments
- Analysing the results of the Eurostat user's survey
- Revision of the guidelines for quality reporting.
- Approach for labelling of European aggregates.

## The work ahead

### Implementation of office wide management tools

#### ■ Performance scoreboard for Eurostat statistical products and services

- The 2006/2007 Performance scoreboard has been released in July 2007.
- Contains new and more detailed information in relation to the 2005 version.
- Information on data quality now integrated in the Quality Barometer.
- Provides analysis of the result indicators and the targets set in the AMP.

#### ■ Quality Barometer summarising the quality of the statistics produced in the ESS

- The Quality Barometer was released in May 2007.
- Provides detailed information about the quality of the outputs produced in the ESS.
- Pilot exercise due to the limited quality information on quality reports.
- A Eurostat internal Task Force will analyze several aspects such as the structure, content and how to present quality information for the ESS.
- The internal Task Force will produce recommendations for future improvements to be incorporated in the Quality Barometer to be drafted in 2008.