



Conference on  
**Remuneration  
Statistics**  
**eurostat** 

## Structure

- Title** Why Eurostat correction coefficients are considered to represent a “gold standard” in international cost-of-living comparisons : a preliminary quality assessment
- Author and Speaker** Ian DENNIS
- Expertise** Senior Expert, Team Leader remuneration statistics for administrative purposes, Eurostat (Statistical Office of the European Union)
- Conference session to which relates** 3
- Contacts** [ian.dennis@ec.europa.eu](mailto:ian.dennis@ec.europa.eu)
- Abstract** A preliminary assessment of the Eurostat work on remuneration statistics for administrative purposes, using the new 2019 quality assurance framework indicators, confirms the very high quality standard that is being achieved.
- Keywords** Quality Assurance Framework, Remuneration Statistics, Correction Coefficients, Gold Standard
- Disclaimer** The opinions expressed in this document represent the authors' points of view and are not necessarily shared by the European Commission (Eurostat).

**Luxembourg**

**9-10**

December 2019

European Convention Center  
Luxembourg

# 1. Introduction

The European Statistics Code of Practice was first adopted by the Statistical Programme Committee (SPC) in 2005. The Code was revised by the European Statistical System Committee (ESSC) in 2011 and 2017.

The 2019 edition (Version 2.0) of the Quality Assurance Framework of the European Statistical System (ESS QAF) follows and aligns with the 2017 revision of the European Statistics Code of Practice (ES CoP). Together with the general quality management principles, the ES CoP and the ESS QAF constitute the common quality framework of the ESS, based on which high-quality European Statistics are developed, produced and disseminated. This self-regulatory common quality framework complements the extensive legal framework of the ESS that is based on Regulation (EC) No 223/2009 on European Statistics<sup>2</sup> which itself derives from the Treaty on the Functioning of the European Union. High-quality European Statistics and services are therefore developed, produced and disseminated in a very robust legal and quality framework.

A formal quality audit of the Eurostat work to establish Remuneration Statistics is scheduled for 2021. The current document provides a preliminary quality assessment, focusing on the quality assurance framework indicators.

## 2. Preliminary quality assessment

***Appendix One*** applies the institutional environment indicators from the QAF.

***Appendix Two*** applies the statistical processes indicators from the QAF.

***Appendix Three*** applies the statistical outputs indicators from the QAF.

## 3. Conclusion

Readers are invited to take note of the high quality standards achieved for Eurostat Remuneration Statistics on the basis of this preliminary assessment.

## APPENDIX ONE : Preliminary quality assessment - institutional environment

No.	Target	Assessment
(A) INSTITUTIONAL ENVIRONMENT		
<p>Institutional and organisational factors have a significant influence on the effectiveness and credibility of a statistical authority developing, producing and disseminating European Statistics. The relevant Principles are professional independence, coordination and cooperation, mandate for data collection, adequacy of resources, quality commitment, statistical confidentiality, impartiality and objectivity.</p>		
<p><b>Principle 1: Professional Independence.</b> Professional independence of statistical authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, ensures the credibility of European Statistics.</p>		
<p><i>Indicator 1.1: The independence of the National Statistical Institutes and Eurostat from political and other external interference in developing, producing and disseminating statistics is specified in law and assured for other statistical authorities.</i></p>		
1.	Professional independence of the National Statistical Institutes and of Eurostat;	
2.	Professional independence of other statistical authorities;	
3.	Drafting of legislation;	
4.	Legislative advocacy;	
5.	Code of professional ethics;	
6.	Awareness of staff.	
<p><i>Indicator 1.2: The heads of the National Statistical Institutes and of Eurostat and, where appropriate, the heads of other statistical authorities have sufficiently high hierarchical standing to ensure senior level access to policy authorities and administrative public bodies. They are of the highest professional calibre.</i></p>		
1.	Hierarchical standing of the heads of the National Statistical Institutes and of Eurostat;	
2.	Status of the heads of the other statistical authorities;	
3.	Guidance on qualifications, knowledge and capacities;	
4.	Position of the National Statistical Institutes and Eurostat.	

<i>Indicator 1.3: The heads of the National Statistical Institutes and of Eurostat and, where appropriate, the heads of other statistical authorities have responsibility for ensuring that statistics are developed, produced and disseminated in an independent manner.</i>		
1.	Responsibilities of the heads of the National Statistical Institute, and of Eurostat;	
2.	Responsibilities of the heads of other statistical authorities;	
3.	Drafting of legislation.	
<i>Indicator 1.4: The heads of the National Statistical Institutes and of Eurostat and, where appropriate, the heads of other statistical authorities have the sole responsibility for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases.</i>		
1.	Sole responsibility of the heads of the National Statistical Institutes and of Eurostat regarding statistical production;	
2.	Sole responsibility of the heads of the National Statistical Institutes and of Eurostat regarding timing and content of statistical releases;	
3.	Sole responsibility of the statistical heads of the other statistical authorities regarding statistical production;	
4.	Sole responsibility of the statistical heads of the other statistical authorities regarding timing and content of statistical releases;	
5.	Procedure for the development and implementation of statistical methodology;	
6.	Release calendar.	
<i>Indicator 1.5: The statistical work programmes are published and periodic reports describe progress made.</i>		
1.	Strategy;	
2.	Statistical work programme;	
3.	Compilation of the programme;	
4.	Reports on the implementation of the statistical work programme.	

*Indicator 1.6: Statistical releases are clearly distinguished and issued separately from political/policy statements.*

1.	Description of statistical outputs;	
2.	Training on how to communicate about statistics;	
3.	Identification of statistical releases;	
4.	Definition of the brand.	

*Indicator 1.7: The National Statistical Institute and Eurostat and, where appropriate, other statistical authorities, comment publicly on statistical issues, including criticisms and misuses of statistics as far as considered suitable.*

1.	Monitor the use of statistical products;	
2.	Communicate on the use;	
3.	Analysis of criticism/misuse;	
4.	Reactions to criticism/misuse.	

*Indicator 1.8: The procedures for the recruitment and appointment of the heads of the National Statistical Institutes and Eurostat and, where appropriate, the statistical heads of other statistical authorities, are transparent and based on professional criteria only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence.*

1.	Terms of recruitment and appointment of the heads of the National Statistical Institutes and Eurostat;	
2.	Terms of dismissal of the heads of the National Statistical Institutes and Eurostat;	
3.	Procedures for the appointment and dismissal of the statistical heads of other statistical authorities;	
4.	Legislative advocacy;	
5.	Guidelines;	
6.	Procedures for recruitment and appointment.	

**Principle 1bis: Coordination and cooperation.** National Statistical Institutes and Eurostat ensure the coordination of all activities for the development, production and dissemination of European Statistics at the level of the national statistical system and the European Statistical System, respectively. Statistical authorities actively cooperate within the partnership of the European Statistical System, so as to ensure the development, production and dissemination of European statistics

*Indicator 1bis.1: The National Statistical Institutes coordinate the statistical activities of all other national authorities that develop, produce and disseminate European Statistics. They act in this regard as the sole contact point for Eurostat on statistical matters. Legislation and well defined and established procedures are in place for implementing the coordination role at both national and European levels.*

1.	Legal basis for coordination role;	
2.	Criteria for other statistical authorities;	
3.	Inventory of other statistical authorities;	
4.	Governance body;	
5.	Coordination instruments;	
6.	Procedures on coordination (national level);	
7.	Commission Decision;	
8.	Instruments for sole contact point;	
9.	Written agreements with other statistical authorities;	
10.	Regular meetings to manage national coordination;	
11.	Coordinated training programme;	
12.	Information platform;	
13.	Domain coordination.	

<i>Indicator 1bis.2: National guidelines to ensure quality in the development, production and dissemination of European Statistics within the national statistical system are produced by the Heads of the National Statistical Institutes, where necessary; their implementation is monitored and reviewed.</i>		
1.	National quality guidelines;	
2.	Implementation of the national quality guidelines;	
3.	Meetings on quality with the other statistical authorities;	
4.	Quality assessment tools.	
<i>Indicator 1bis.3: Statistical authorities continuously maintain and develop cooperation at various levels with each other and with the advisory bodies of the European Statistical System, as well as with the members of the European System of Central Banks, academic institutions and other international bodies, as appropriate.</i>		
1.	Cooperation within the European Statistical System;	
2.	Policy on data sharing;	
3.	. Cooperation with the advisory bodies of the European Statistical System;	
4.	Cooperation with the central banks;	
5.	Cooperation with scientific institutions;	
6.	Cooperation with international bodies;	 MoU 2009, WRAP, ACPAQ
7.	Promotion and support of innovation;	
8.	Partnerships between statistical authorities.	

**Principle 2: Mandate for Data Collection and Access to Data.** Statistical authorities have a clear legal mandate to collect and access information from multiple data sources for European statistical purposes. Administrations, enterprises and households, and the public at large may be compelled by law to allow access to or deliver data for European statistical purposes at the request of statistical authorities.

*Indicator 2.1: The mandate of the statistical authorities to collect and access information from multiple data sources for the development, production and dissemination of European Statistics is specified in law.*

1.	Mandate of statistical authorities;	
2.	Availability of legislation;	
3.	Justification of statistical needs;	
4.	Procedures for data collection and access to data;	
5.	Procedures for exploring data sources.	

*Indicator 2.2: The statistical authorities are allowed by law to access administrative data, promptly and free of charge, and use them for statistical purposes. They are involved from the beginning in the design, development and discontinuation of administrative records, in order to make them more suitable for statistical purposes.*

1.	Right to access administrative data;	
2.	Obligation for administrative data holders;	
3.	Legislation of administrative data holders;	
4.	Monitoring of legislation regarding administrative data;	
5.	Agreements between statistical authorities and administrative data holders;	
6.	Consultation;	
7.	Cooperation;	
8.	Awareness raising;	

9.	Delivery procedures;	
10.	Standardised metadata;	
11.	Access management.	

*Indicator 2.3: On the basis of a legal act, the statistical authorities may compel response to statistical surveys.*

1.	Legal basis;	
2.	Information to respondents;	
3.	Proactive measures;	
4.	Sanctions;	
5.	Measures to encourage response.	

*Indicator 2.4: Access for statistical purposes to other data, such as privately held data, is facilitated, while ensuring statistical confidentiality and data protection.*

1.	Agreements;	
2.	Partnerships;	
3.	Awareness raising;	
4.	Engagement;	
5.	Guidelines;	
6.	Data scouting;	

7.	Access procedures;	
8.	Free of charge access;	
9.	Compensation for access;	
10.	Data protection procedures;	
11.	Access management;	
12.	Technical capacity.	

**Principle 3: Adequacy of Resources.** The resources available to statistical authorities are sufficient to meet European Statistics requirements.

*Indicator 3.1: Human, financial and technical resources, adequate both in magnitude and in quality, are available to meet statistical needs.*

1.	Strategic planning;	
2.	Human resource policy;	
3.	Financial policy;	
4.	IT policy;	
5.	Engagement of governance bodies;	
6.	Flexibility in allocation of resources;	
7.	Monitoring of use of resources;	
8.	Evaluation of adequacy of resources;	

9.	Risk management;	
10.	Job descriptions;	
11.	Provision of training.	
<i>Indicator 3.2: The scope, detail and cost of statistics are commensurate with needs.</i>		
1.	Policy on adjustment of scope, detail and cost of statistics to needs;	
2.	Cooperation with stakeholders;	
3.	Planning procedures;	
4.	Cost awareness;	
5.	Scope, detail and costs of statistics;	
6.	Monitoring of user needs and feedback;	
7.	Cost accounting;	
<i>Indicator 3.3: Procedures exist to assess and justify demands for new statistics against their cost.</i>		
1.	Assessment of new demands against costs;	
2.	Definition of priorities;	
3.	Costing of statistical output.	

*Indicator 3.4: Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued or curtailed to free up resources.*

1.	Review procedures;	
2.	User consultations;	
3.	Planning and priority setting process.	

**Principle 4: Commitment to Quality.** Statistical authorities are committed to quality. They systematically and regularly identify strengths and weaknesses to continuously improve process and output quality.

*Indicator 4.1: Quality policy is defined and made available to the public. An organisational structure and tools are in place to deal with quality management.*

1.	A quality policy / commitment statement;	
2.	An organisational structure for managing quality;	
3.	Quality guidelines;	
4.	Availability of quality guidelines;	
5.	An infrastructure for documentation;	
6.	Quality culture;	
7.	Risk management;	
8.	Risk and quality management;	
9.	Availability of the European Statistics Code of Practice;	
10.	References to the European Statistics Code of Practice.	

<i>Indicator 4.2: Procedures are in place to plan, monitor and improve the quality of the statistical processes, including the integration of data from multiple data sources.</i>		
1.	Methodological and technical support and general tools;	
2.	A culture of continuous improvement;	
3.	Evaluating process quality;	
4.	A quality assurance and improvement plan;	
5.	Improve process quality.	
<i>Indicator 4.3: Output quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for European Statistics.</i>		
1.	Monitoring output quality;	
2.	Assessing output quality;	
3.	User satisfaction surveys;	
4.	User-oriented quality reports;	
5.	Producer-oriented quality reports.	
<i>Indicator 4.4: There is a regular and thorough review of the key statistical outputs using also external experts where appropriate.</i>		
1.	A plan for implementing quality reviews;	
2.	Methodology for quality reviews;	
3.	Organisational structure for quality reviews;	

4.	Training of internal auditors;	
5.	Reference documentation;	
6.	Action plans;	
7.	Feedback from users;	
8.	Deployment of external experts;	
9.	Benchmarking.	
<p><b>Principle 5 – Statistical Confidentiality and Data Protection.</b> The privacy of data providers, the confidentiality of the information they provide, its use only for statistical purposes and the security of data are absolutely guaranteed.</p>		
<p><i>Indicator 5.1 – Statistical confidentiality is guaranteed in law.</i></p>		
1.	Legal provisions.	
<p><i>Indicator 5.2 – Staff sign legal confidentiality commitments on appointment.</i></p>		
1.	Mandatory confidentiality commitments.	
<p><i>Indicator 5.3 – Penalties are prescribed for any wilful breaches of statistical confidentiality.</i></p>		
1.	Legal provisions;	
2.	Provisions on sanctions publicly available.	
<p><i>Indicator 5.4 – Guidelines and instructions are provided to staff on the protection of statistical confidentiality throughout the statistical processes. The confidentiality policy is made known to the public.</i></p>		
1.	Statistical confidentiality policy;	
2.	Organisational structure on the protection of statistical confidentiality.	
3.	Guidance to staff;	

4.	Methods for ensuring confidentiality;	
5.	Information to respondents regarding commitments to confidentiality;	 DPO notification
6.	Information to users regarding commitments to confidentiality;	
7.	Statistical disclosure control methods;	
8.	Output checking.	

*Indicator 5.5 – The necessary regulatory, administrative, technical and organisational measures are in place to protect the security and integrity of statistical data and their transmission, in accordance with best practices, international standards, as well as European and national legislation.*

1.	Information security policy;	
2.	Security processes and measures (GDPR);	
3.	Information security audits;	
4.	Secured storage of data;	
5.	Monitoring access to data;	
6.	Treatment of identifiers;	
7.	Information risk assessment;	
8.	Information security officer;	
9.	Data protection impact assessment.	

*Indicator 5.6 – Strict protocols apply to external users accessing statistical microdata for research purposes.*

1.	Conditions for access to microdata for scientific purposes;	 ECP
2.	Confidentiality declaration;	
3.	Safeguards for researcher access to microdata for scientific purposes;	
4.	Control over microdata;	
5.	Secure environment;	
6.	Monitoring use of microdata.	

**Principle 6 – Impartiality and Objectivity.** Statistical authorities develop, produce and disseminate European Statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

*Indicator 6.1 – Statistics are compiled on an objective basis determined by statistical considerations.*

1.	Guidelines on impartiality and objectivity;	
2.	Objectivity of selection of external partners;	
3.	Methodological objectivity and best practices.	

*Indicator 6.2 – Choices of data sources and statistical methods as well as decisions about the dissemination of statistics are based on statistical considerations.*

1.	Procedures on selection of data sources;	
2.	Criteria for selection of data sources and methodology;	
3.	Information on data sources and methodology;	
4.	Assessment of selection of data sources and methodologies;	

5.	Decisions on dissemination;	
6.	Statistical considerations for non-disclosure of data	 Analytical categories
7.	Replacement of data sources.	
<i>Indicator 6.3 – Errors discovered in published statistics are corrected at the earliest possible date and publicised.</i>		
1.	Error treatment policy;	
2.	Error declaration;	
3.	Announcement and correction of substantial errors.	
<i>Indicator 6.4 – Information on data sources, methods and procedures used is publicly available.</i>		
1.	Methodological notes and metadata;	 Free Data Tables
2.	Transparency of processes.	 Dedicated Section
<i>Indicator 6.5 – Statistical release dates and times are pre-announced.</i>		
1.	Availability of the release calendar;	
2.	Stability of the release calendar.	
<i>Indicator 6.6 – Advance notice is given on major revisions or changes in methodologies.</i>		
1.	Announcement of revisions;	
2.	Communication of information on revisions;	
3.	Revision practice.	

*Indicator 6.7 – Statistical authorities independently decide on the time and content of statistical releases, while taking into account the goal of providing complete and timely statistical information. All users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited, well-justified, controlled and publicised. In case of breach, pre-release arrangements are reviewed so as to ensure impartiality.*

1.	Formal provisions;	
2.	Equal access;	
3.	Pre-release accesses;	 Workflow agreement, MoU
4.	Procedures to prevent and handle leaks;	
5.	Procedures to prevent the misuse of data under embargo;	
6.	Decision on time and content of statistical releases.	

*Indicator 6.8 – Statistical releases and statements made in press conferences are objective and non-partisan.*

1.	Objectivity in statements;	
2.	Guidelines for press releases;	
3.	Guidelines for press conferences;	
4.	Independent nature of press conferences.	

APPENDIX TWO : Preliminary quality assessment - statistical processes

No.	Target	Assessment
(B) STATISTICAL PROCESSES		
<p>European and other international standards, guidelines and good practices are fully observed in the statistical processes used by the statistical authorities to develop, produce and disseminate European Statistics, while constantly striving for innovation. The credibility of the statistics is enhanced by a reputation for good management and efficiency. The relevant Principles are sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness.</p>		
<p><b>Principle 7: Sound Methodology.</b> Sound Methodology underpins quality statistics. This requires adequate tools, procedures and expertise.</p>		
<p><i>Indicator 7.1: The overall methodological framework used for European Statistics follows European and other international standards, guidelines, and good practices, while constantly striving for innovation.</i></p>		
1.	A summary methodological document;	 <p>Doc.A6465// role of WG;            Doc.A6465// rev JBLI;            Doc.A6465// rev Intra-EU;            Doc.A4645// rev Extra-EU;            ECP manual;            HICP manual;            Doc.A6465// rev SI and CI;            Country A65 manuals.</p>
2.	Availability of methodological guidelines, handbooks;	 <p>CIRCABC public - history;            Dedicated section (since 2015) - current version;            Free Data Tables metadata - current version.</p>
3.	Explanation of divergence from international recommendations;	
4.	Striving for innovation;	 <p>Research programme</p>

5.	Innovative methods for collecting and processing data;	
6.	Statistical Services;	
7.	Adoption of innovative methods	
<i>Indicator 7.2: Procedures are in place to ensure that standard concepts, definitions, classifications and other types of standards are consistently applied throughout the statistical authority.</i>		
1.	Concepts, definitions, classifications and other types of standards;	
2.	A methodological organisational structure;	
3.	Views of experts and users;	
4.	Methodological documentation.	
<i>Indicator 7.3: The registers and frames used for European Statistics are regularly evaluated and adjusted if necessary in order to ensure high quality.</i>		
1.	Update of registers and frames;	
2.	Quality assessment of registers and frames;	
3.	Feedback from surveys;	
4.	Changes in administrative data sources;	
5.	Update of privately held data.	

<i>Indicator 7.4: Detailed concordance exists between national classifications systems and the corresponding European systems.</i>		
1.	Consistency of national classifications;	
2.	Correspondence tables;	
3.	Update of classifications.	
<i>Indicator 7.5: Graduates in the relevant academic disciplines are recruited.</i>		
1.	Recruitment of staff;	
2.	Cooperation with universities;	
3.	Qualifications for posts.	
<i>Indicator 7.6: Statistical authorities implement a policy of continuous vocational training for their staff.</i>		
1.	A policy for the training of staff;	
2.	Continuous vocational training;	
3.	Updating of staff skills and fields of study;	
4.	Attendance of staff at courses;	
5.	Planning of training.	

<i>Indicator 7.7: Statistical authorities maintain and develop cooperation with the scientific community to improve methodology, the effectiveness of the methods implemented and to promote better tools when feasible.</i>		
1.	Collaboration with the scientific community;	
2.	Comparative methodological studies;	
3.	Collaboration with colleagues at international level;	
4.	Participation and presentations at conferences;	
5.	Organisation of conferences;	 1 <sup>st</sup> CRS 2019
6.	External evaluation of methodology.	
<b>Principle 8: Appropriate Statistical Procedures.</b> Appropriate statistical procedures implemented throughout the statistical processes, underpin quality statistics.		
<i>Indicator 8.1: When European Statistics are based on administrative and other data, the definitions and concepts used for non-statistical purposes are a good approximation to those required for statistical purposes.</i>		
1.	Responsibility for statistical processing of administrative and other data;	
2.	Distinction between statistical data, administrative data and other data processing;	
3.	Approximations of definitions and concepts;	
4.	Processing of administrative or other data for statistical purposes;	
5.	Documentation of statistical, administrative and other data production processes;	

6.	Differences in concepts;	
7.	Measures to deal with differences in concepts.	
<i>Indicator 8.2: In the case of statistical surveys, questionnaires are systematically tested prior to the data collection.</i>		
1.	Procedures for the development of questionnaires;	 ECP; A64 FBS, SHS, EARS, schools; A65 SRQ
2.	Testing of questionnaires;	
3.	Use of test results.	
<i>Indicator 8.3: Statistical processes are routinely monitored and revised as required.</i>		
1.	Organisational structure for guidelines, methodologies and examination of methods;	
2.	Reporting on methods to the public;	
3.	Promotion and sharing of standards and best practices;	
4.	Metadata-driven;	
5.	Design of statistical processes;	
6.	Renewal of sample designs;	
7.	Procedures for designing, testing and updating questionnaires;	
8.	Measurement of non-sampling errors;	

9.	Assessment of sampling and estimation methods;	
10.	Assessment of data collection methods;	
11.	Provision of documents to respondents;	
12.	Support to respondents;	
13.	Training of interviewers;	
14.	A procedure to monitor data collection;	
15.	Procedures to follow-up non-response;	
16.	Documentation and sharing of data coding methods;	
17.	Compliance of editing;	
18.	Data integration;	
19.	Use of statistical models;	
20.	Automated methods;	
21.	Process quality indicators;	
22.	Process descriptions.	

<i>Indicator 8.4: Metadata related to statistical processes are managed throughout the statistical processes and disseminated, as appropriate.</i>		
1.	Management of metadata;	
2.	Procedures to disseminate metadata;	
3.	Training courses for staff on metadata standards and quality reports;	
4.	Metadata on statistical processes.	
<i>Indicator 8.5: Revisions follow standard, well-established and transparent procedures.</i>		
1.	Revision policy;	
2.	Guidelines and tools related to revisions;	
3.	Calendar of revisions;	
4.	Explanation of revisions and their publication.	
<i>Indicator 8.6: Agreements are made with holders of administrative and other data which set out their shared commitment to the use of these data for statistical purposes.</i>		
1.	Agreements with holders of administrative and other data;	
2.	Guidance on new data sources;	
3.	Capabilities;	
4.	Documentation of administrative and other data.	

*Indicator 8.7: Statistical authorities co-operate with holders of administrative and other data in assuring data quality.*

1.	Informing the administrative or other data holder;	
2.	Quality requirements;	
3.	Data correction policy;	
4.	Cooperation;	
5.	Continuous improvement.	

**Principle 9: Non-excessive Burden on Respondents.** The response burden is proportionate to the needs of the users and is not excessive for respondents. The statistical authorities monitor the response burden and sets targets for its reduction over time.

*Indicator 9.1: The range and detail of European Statistics demands is limited to what is absolutely necessary.*

1.	Priorities for European Statistics;	 Specific action in duty stations which are not capital cities; IPA programme.
2.	Verification of the response burden and level of details;	
3.	Assessment of the statistical work programme;	
4.	Analysis of the needs for statistical information.	

*Indicator 9.2: The response burden is spread as widely as possible over survey populations and monitored by the statistical authority.*

1.	Balancing the burden between respondents;	
2.	Measurement of response burden;	

3.	Review of response burden;	
4.	Reduction of response burden;	
5.	Action plans for simplification/modernisation of data collection.	
<i>Indicator 9.3: The data sought from businesses is, as far as possible, readily available from their accounts and electronic means are used where possible to facilitate its return.</i>		
1.	Procedures and technical tools;	
2.	Data extraction from business accounting systems;	
3.	Cooperation with the business community;	
4.	Informing the businesses of the survey results.	
<i>Indicator 9.4: Administrative and other data sources are used whenever possible to avoid duplicating requests for data.</i>		
1.	Collaboration to increase the use of administrative and other data sources;	
2.	Consideration of alternative data sources;	
3.	Guidance on data sources;	
4.	IT tools for the collection of administrative and other data.	
<i>Indicator 9.5: Data sharing and data integration, while adhering to confidentiality and data protection requirements, are promoted to minimise response burden.</i>		
1.	Agreements and tools for data sharing;	 MoU 2009
2.	Methods and tools for data integration;	

3.	Sharing of data archives;	
4.	Promoting register-based national statistical systems;	
5.	Key variables to be shared.	

*Indicator 9.6: Statistical authorities promote measures that enable the linking of data sources in order to minimise response burden.*

1.	1. Guidelines, methods and tools for linking data;	
2.	Key variables to be linked;	
3.	Assessment of quality of the linkage.	

**Principle 10: Cost effectiveness.** Resources are used effectively.

*Indicator 10.1: Internal and independent external measures monitor the statistical authority's use of resources.*

1.	Monitoring and reporting indicators on resources;	
2.	Costs of statistical production;	 MoU 2009
3.	Allocation of resources to statistical processes;	
4.	Evaluation of staff;	
5.	Staff opinion/satisfaction surveys;	
6.	Reviews of IT infrastructure;	
7.	Procedures to calculate costs.	

*Indicator 10.2: The productivity potential of information and communications technology is being optimised for the statistical processes.*

1.	Pooling of resources, investments and the identification of innovation/modernisation potential;	
2.	IT architecture and strategy;	
3.	Promote automated techniques;	
4.	Automated processing techniques.	

*Indicator 10.3: Proactive efforts are made to improve the statistical potential of administrative and other data sources and to limit recourse to direct surveys.*

1.	Meetings with holders of administrative and other data;	
2.	Assessment of possible administrative and other data sources;	
3.	Investigating the statistical potential of new data sources;	
4.	Data linking and integration methods;	
5.	Quality indicators.	

*Indicator 10.4: Statistical authorities promote, share and implement standardised solutions that increase effectiveness and efficiency.*

1.	Standardisation programmes and procedures for statistical processes;	
2.	Strategy to adopt or develop standards;	
3.	Sharing standardised solutions;	
4.	Standardisation.	

APPENDIX THREE : Preliminary quality assessment - statistical output

No.	Target	Assessment
(C) STATISTICAL OUTPUT		
Available statistics meet users' needs. Statistics comply with the European quality standards and serve the needs of European institutions, governments, research institutions, business concerns and the public generally. Output quality is measured by the extent to which the statistics are relevant, accurate and reliable, timely, coherent, comparable across regions and countries, and readily accessible by users, i.e. the Principles of Statistical Output.		
<b>Principle 11: Relevance.</b> European Statistics meet the needs of users.		
<i>Indicator 11.1: Procedures are in place to consult users, to monitor the relevance and value of existing statistics in meeting their needs, and to consider and anticipate their emerging needs and priorities. Innovation is pursued to continuously improve statistical output.</i>		
1.	Legislation on user consultation;	
2.	Aim of user consultation;	
3.	User consultation procedures;	
4.	Analysis of the use of statistics;	
5.	Relevance of statistical output;	
6.	Innovation;	
7.	Key users;	
8.	Classification and user profiling;	
9.	Quality indicator(s);	
10.	Analysis and assessment of relevance.	

<i>Indicator 11.2: Priority needs are being met and reflected in the work programme.</i>		
1.	Statistical work programme priorities;	
2.	Strategic goals and programmes;	
3.	Agreements with key users;	
4.	Evaluation of the statistical work programme.	
<i>Indicator 11.3: User satisfaction is monitored on a regular basis and is systematically followed up.</i>		
1.	User satisfaction measurement;	
2.	Dissemination of user satisfaction measurement;	
3.	Follow-up of user satisfaction measurement;	
4.	Satisfaction of key users with specific outputs.	
<b>Principle 12: Accuracy and Reliability.</b> European Statistics accurately and reliably portray reality.		
<i>Indicator 12.1: Source data, integrated data, intermediate results and statistical outputs are regularly assessed and validated.</i>		
1.	Assessment and validation systems;	
2.	Assessment and validation guidelines;	
3.	Assessment and validation procedures;	
4.	Comparison of intermediate results and outputs.	

<i>Indicator 12.2: Sampling errors and non-sampling errors are measured and systematically documented according to the European standards</i>		
1.	Guidelines and methods to measure and reduce errors;	
2.	Quality indicator(s);	
3.	Analysis and assessment of accuracy and reliability;	
4.	Procedures for preventing and reducing errors;	
5.	Methods for improving accuracy.	
<i>Indicator 12.3: Revisions are regularly analysed in order to improve source data, statistical processes and outputs.</i>		
1.	Procedures on analysis of revisions;	
2.	Analysis of revisions;	
3.	Quality indicators on revisions.	
<b>Principle 13: Timeliness and Punctuality.</b> European Statistics are released in a timely and punctual manner.		
<i>Indicator 13.1: Timeliness meets European and other international release standards.</i>		
1.	Compliance with European and international standards;	
2.	Publication of a release calendar;	
3.	Divergences from timeliness targets;	
4.	Quality indicator(s);	
5.	Analysis and assessment of timeliness.	

<i>Indicator 13.2: A standard daily time for the release of European Statistics is made public.</i>		
1.	Release policy;	
2.	Publication at a standard daily time .	
<i>Indicator 13.3: The periodicity of statistics takes into account user requirements as much as possible.</i>		
1.	Consultation of users on periodicity.	
<i>Indicator 13.4: Divergence from the dissemination time schedule is publicised in advance, explained and a new release date set.</i>		
1.	Publication of a release calendar;	
2.	Monitor and assess punctuality;	
3.	Divergences from the pre-announced release time;	
4.	Quality indicator(s);	
5.	Analysis and assessment of punctuality.	
<i>Indicator 13.5: Preliminary results of acceptable aggregate accuracy and reliability can be released when considered useful.</i>		
1.	Dissemination of preliminary results;	
2.	Quality of preliminary results;	
3.	Policy for scheduled revisions.	

<b>Principle 14: Coherence and Comparability.</b> European Statistics are consistent internally, over time and comparable between regions and countries; it is possible to combine and make joint use of related data from different data sources.		
<i>Indicator 14.1: Statistics are internally coherent and consistent (i.e. arithmetic and accounting identities observed).</i>		
1.	Procedures and guidelines to monitor internal coherence;	
2.	Procedures and guidelines to combine outputs from complementary data sources;	
3.	Quality indicator(s);	
4.	Analysis and assessment of coherence.	
<i>Indicator 14.2: Statistics are comparable over a reasonable period of time.</i>		
1.	Identification of changes to concepts;	
2.	Identification and measurement of changes in methods;	
3.	Publication and explanation of breaks in time series;	
4.	Quality indicator(s);	
5.	Analysis and assessment of comparability.	
<i>Indicator 14.3: Statistics are compiled on the basis of common standards with respect to scope, definitions, units and classifications in the different surveys and data sources.</i>		
1.	A mechanism to promote coherence and consistency;	
2.	Assessment of compliance with standards;	
3.	Explanation of deviations from standards.	

*Indicator 14.4: Statistics from different data sources and with different periodicity are compared and reconciled.*

1.	Comparison of statistical output with related data;	
2.	Identification and explanation of divergences;	
3.	Reconciliation of statistical outputs. Statistical outputs are reconciled whenever possible.	

*Indicator 14.5: Cross-national comparability of the data is ensured within the European Statistical System through periodical exchanges between the European Statistical System and other statistical systems. Methodological studies are carried out in close co-operation between the Member States and Eurostat.*

1.	Institutionalisation of assessments of comparability;	
2.	Collaboration in methodological studies;	
3.	Assessment by Eurostat on the comparability of data;	
4.	Analysis of asymmetries;	
5.	Analysis of mirror statistics.	

**Principle 15: Accessibility and Clarity.** European Statistics are presented in a clear and understandable form, released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance.

*Indicator 15.1: Statistics and the corresponding metadata are presented, and archived, in a form that facilitates proper interpretation and meaningful comparisons.*

1.	Dissemination policy;	
2.	Policy for archiving statistics and metadata;	
3.	Availability of policies;	
4.	Dissemination and archiving guidelines;	

5.	Training courses;	
6.	Review of practices;	
7.	User consultation on dissemination;	
8.	Comparisons in publications.	

*Indicator 15.2: Dissemination services use modern information and communication technology, methods, platforms and open data standards.*

1.	Modern means of dissemination and communication;	
2.	Conformity with universal guidelines;	
3.	Website, statistical databases and self-tabulation;	 Free Data Tables; Dedicated Section
4.	Information service/call centre service;	
5.	Facilitating re-dissemination;	
6.	Appropriate forms and channels;	
7.	Publication catalogue.	

*Indicator 15.3: Custom-designed analyses are provided when feasible and the public is informed.*

1.	Policy on custom-designed analysis;	 Subject to resource constraints
2.	Publication of custom-designed analysis;	

3.	Service for requesting custom-designed analyses;	 ESTAT USER SUPPORT; ESTAT MEDIA SUPPORT
4.	Tools for placing on-line orders;	
5.	Provision of custom-designed outputs.	
<i>Indicator 15.4: Access to microdata is allowed for research purposes and is subject to specific rules or protocols.</i>		
1.	Rules or protocols to access microdata;	 (same as ECP)
2.	Availability of rules or protocols;	
3.	Access conditions to micro-data;	
4.	Individual approach;	
5.	Scope and appropriateness of accessible microdata;	
6.	Protection of confidentiality;	
7.	Secure environment;	
8.	Remote access facilities;	
9.	Consultation of researchers.	

<i>Indicator 15.5: Metadata related to outputs are managed and disseminated by the statistical authority according to the European standards.</i>		
1.	Accordance of metadata with European Standards;	
2.	Procedures to update and publish metadata;	
3.	Quality assurance for metadata;	
4.	Training courses for staff on metadata;	
5.	Dissemination of metadata.	
<i>Indicator 15.6: Users are kept informed about the methodology of statistical processes including the use and integration of administrative and other data.</i>		
1.	Planning of the production of quality reports and methodological documents;	
2.	Methodology of statistical processes;	
3.	Publication of methodology.	 CIRCABC; FDT metadata; Dedicated Section
<i>Indicator 15.7: Users are kept informed about the quality of statistical outputs with respect to the quality criteria for European Statistics.</i>		
1.	ESS standards on quality reporting;	
2.	Central monitoring of publication of quality reports;	
3.	Availability of quality reports;	
4.	Publication of quality reports.	