INSTITUTO NACIONAL DE ESTADISTICA

Quality guidelines of the INE

Quality Unit
(Update version at 1 June 2015)

Index

1 Introduction[1]

The INE have performed in the the last decades plentiful efforts in the land of quality management and control of their products, in order to maintain a high degree of trust, which oficial statistical information enjoys. This document collects in a synthetic way the main components and criteria used in the INE in order to assure that products are compiled according with the adequate quality levels, comparable to the current ones in the international scope in other official statistics institutions.

The description is structured in six sections:

In section 2 is observed, as an introduction, a theorical and regulatory classification, which helps to understand the concept of quality used: this vision correspond with the European Statistics Code of Practice (CP), the reference classification of European Union countries.

The set of elements and the quality management administrative system of the INE are described in the next three sections: in section 3, the current organizative structure dedicated to quality management; in section 4, specific instruments and methods used in the INE for quality management of products; in section 5, a description of the production process model used in the INE (currently at a development stage), based in the international GSBPM classification .

In line with CP recommendations, apart from indicators and methods for controlling quality of products and the efficency in the processes, other general aspects that focus in overall quality management are included: relationships with those interviewed (section 6) and attention to users (section 7). In each case, policies and institutional interventions that influence on the previous aspects are included: dissemination, revision and confidentiality policies; the programmes of reducing burden on those interviewed, or the letter of services that regulate attention to users.

This guidelines' document is in many of its points a revision of the previous guidelines of the INE published in 2004[2] and based on the quality guidelines of Statistics Canadá (1998).

Some aspects remain valid as orienting system of the quality policy of the INE, although time elapsed and the existence of new methodologies and quality frameworks, particularly the CP, have made neccessary an update.

Other important aspect worth noting is the dynamic nature of these guidelines, which can not be considered as a fixed instrument in time, but have to be modify and adjust to tendencies and changes in quality criteria applied to official statistics.

[1]This document has been compiled by the Quality Unit, incorporating to the same contributions of other units, that have a significant role in the quality management system, specially in the units responsible of: methodology (regarding standards and metadata, production model); dissemination (dissemination policy, confidentiality policy, letter or services); planning (programmes for statistical burden reduction). We thank all of them for their contributions to the document.

[2]See INE (2004). (References at the end of the document).

In particular, aspects linked to Spain belonging to the European Union as the process Peer Review (see section 4 of this document), which is being carried out at the moment and the short- or long-term strategic plan known as "Vision 2020", mean changes in quality conception and management, that must be compiled in these guidelines implying changes in those.

In the case of the INE, and linked with the aforesaid, one of the scopes that will be subject of deep transformation is the definition of the process model of statistical production. As mentioned in other section of the document, a definition and implementation proyect of a production process model is currently ongoing, adaptation of the GSBPM international standar to the activity of the INE; this proyect ends on 2016, meaning the need of revising these guidelines in order to include the new production standard.

2 Basic principles: quality in the INE and European Statistics Code of Practice

2.1 The concept of quality in official statistics

Successful organisations and business know that the concept of quality as a continuous improvement process is vital for their survival. Improvement implies change and adapt to market conditions and environments increasingly competitive.

National Statistical Offices are not an exception and are forced to stablish quality strategies that assure reliability of society in the information produced. This trust is absolutely vital for credibility, image and authority of oficial statistics. If statistical information is to be questioned, credibility of the office or institute deteriorates and its reputation as independent and objective body, measurer of socioeconomic reality, is at stake. It is hard to acquire prestige to an institution, but relatively easy to lose it. Therefore, quality must be an important concern for the direction of any National Statistical Institute.

However, the concept of quality in a National Statistical Office is not easy to define. It is a concept that can cover different features of a product or service and any definition of quality can change with time as new features gain more importance.

In the context of statistical information, the concept of quality is not new and have mean, traditionally, the accuracy of the statistical product, understood as the grade of proximity of statistics to the reality wanted to measure and that is compiled in mean squared error.

But currently the term quality has a wider meaning to organizations, that has resulted in a conception known as "total quality". Regarding this approach, quality covers different elements: knowing and understanding the needs of clients (users); involve (motivate) employees in the decision processes associated with the compliance with those needs; a continuous revision of production processes looking for improving quality (reengineering)...

The essential aspect of this global quality conception is that products and services must adujst to the needs of users.

In the case of statistical offices, the orientation to the user implies that quality covers not just the statistical concept of accuracy, but the usefulness sense of information, that it can be use for a purpose, that it is available in the right moment to be useful, and that it can be understood by users too. In other words, accepting the needs of users as a starting point in order to define the quality of a statistical information.

Although this definition may not be operative, due to users may have different needs, it allows a systemathic approach to more important components or dimensions of quality that statistical operation must have. The most commonly accepted are the one compile in the European Statistics Code of Practice:

Relevance: reflects the degree in which statistical information satisfy the needs of users; in other words, the extent in which provides useful information for different purposes. In the current concept of quality, relevancy is one of the main purposes of statistics. Given that there are multiple types of users of information (governments, institutions, companies, researchers, general public...) and multiple purposes or uses of the said one, compiling relevant statistics constitute one of the most important challenges for statistical offices.

Accuracy: is the difference between the estimated value and the true value, in other words, this refers to the degree in which the statistical product describes correctly the fenomenon or features for which it was design. It is the traditional measure of statistical quality.

Timeliness: this refers to the range of time elapsed between reference date of information and date when it is available. Information would only be useful if it is available within the period of time in which it is still possible to make decisions.

Accessibility and Clarity[3]: this refers to to the degree of ease with which information is available and may be acquired by users. This also includes the different forms and means to disseminate information, and the availability of supplemental information (metadata) necessary for interpreting and using data in the appropiate manner.

Coherence and Comparability: reflects in which measure information coming from a concrete statistic may be combine with other statistical informations within an analitic frame wider in space and time. Often users use statistical information from different sources and in different moments and need comparable information. The use of common or, at least, comparable, concepts, variables, classifications and methodologies is essential in order to maintain data comparability and coherence.

For example, is crual in order to guarantee quality, related to the relationship between those interviewed and statistical institutes. Those interviewed are the providers of primary data, a specialy important group for the process of statistical production. The relationship with those interviewed may not be based exclusively in authoritiy principles (the laws that allow INE to ask for information), but must be ruled by reciprocity and respect principles too, stablishing strategist that encourage and motivate to colaborate.

[3]In other systems different to the CP, clarity is named "interpretability".

USERS AND QUALITY

The approach towards the user, however, does not imply that a product must adjust 100% to the needs of users, thus in the production process intervene other two important elements as cost and time: If in order to satisfy any marginal need in regards with overall objectives of a study, it is necessary to incur in high raises of costs or important delays in the final results, probably it would be better to focus in the important objectives and leave aside the marginal ones as important as they might be for some users. Thus, we arrive to the necessity of looking for some balance between what users wish and what can be provide in terms of quality and costs.

Traditionally, the main users of official statistics were governments, that needed statistical information for making decisions on their economic and social policies. The current composition of users is much more wider. Although statistical information is still being used as a important base when making decisions on public matters, statistics have also greater diversity and number of users in research sectors, companies, education, media and individual citizens. It can be said that any social entity uses statistical data in a larger or lesser extent as helping information when making decisions or just to be informed. Last information technologies provoke that even more users realise how valuable are official statistics as information source.

These different type of users may have different preferences and attend to different quality components. For some, speed on the results would be the most important thing, for others it would be comparability within time, or information refered to certain sub-population, etc. There would be users that have used official statistics for years, other would be experts on the information subject, other would be general public who wants to be informed. Few users, generally speaking, would be interested in such technic matters as filtering processes or adjustment methods for non-response. This heterogeneity of users tends to make more complex the communication of quality.

On the other hand, in agreement with the idea of quality oriented towards the user, is the user himself who evaluates the quality of the product. However, users of statistical information can seldom evaluate and even rarely verify information, thus, in general, there is no competetive product, leaving them with no other alternative that to trust in the reputation of the producer. This credibility becomes evn more necessary with the Internet and having indiscrimate access to a huge variety of information coming from a lot of different sources (public or private).

Credibility then, becomes a matter of survival for statistical offices. As Fellegi (1991) notes, apart from the afore mentioned elements (accuracy, relevance, etc.) there are other features that contribute to the credibility of an Agency.

In particular, it is worth noting an aspect that may be considered implicit in the principle "clarity" of the CP, which we emphasize now: clarity implies that the user is provided with adequate information on methods and definitions used; but Fellegi highlights a feature of this dimension that is worth noting: the user is provided with information about the very aspects of quality too. It is essential that

users of statistical information know that they do not need to speculate about the possible aspects of quality: they must trust that the statistical office performs continuous efforts in order to control and improve quality.

All this principles, essential on the performance of a statistical institute, inspired by achieving this quality, have been compiled in the conceptual framework by and for the European Union countries: European Statistics Code of Practice.

2.2 European Statistics Code of Practice (CP)

Although quality management and control activities of statistics have been present since the beginning of the process of European integration, the real starting point of a more systematic concern for quality may be fixed in the year 2000. In that year, european institution issued a Declaration of Quality of the European Statistical System (ESS). This event was followed in 2005 by adopting the CP.

These European iniciatives are part of a increasingly more globalised context in which official statistical institutions develope their functions; as leading to the grudual appereance of internationally acknowledged rules with the aim of guarantee statistical quality. In 1994, United Nations Statistical Commission adopted the so called "Fundamental principles of statistics"; in other words, principles ruling international statistical activities considered essential for a democratic society: statistical institutions must work based on professional concerns, including scientific and ethic principles. International Monetary Fund (IMF) and Organisation for Economic Co-operation and Economic Development (OECD) has also issued recomendations on statistical quality. And in 2005, the European Commission passed the CP.

Although it is based on those previous proposals, the European Code is more detailed and practical that its precessors. Besides, it adopted general classifications of quality management, mainly the "total quality" management principles already mentioned, and the ones compiled in the EFQM (European Foundation for Quality Management - See reference EFQM (2002)-).

The main purposes of the CP are:

– To establish a standar for development, production and dissemination of European statistics. It is based on a definition of quality of statistics common to the whole ESS and that affects all activity scopes, from institutional aspects (laws, organization, etc.)

– Ensure data quality and credibility. These principles make reference, among other aspects, to professional independency, confidentiality protection, results reliability, its accuracy, timeliness, accessibility, clarity, comparability and coherence.

The fifteen principles of the CP (chart 1) registered therefore quality requirements, are classified in three mentioned scopes:

– Quality of the statistical product (principles 11 to 15), that collects prevailing international tendencies of "adequacy of the product to the needs of the user" and covering the already mentioned features:

Chart 1. Principles of the CP, classified by the three scopes of quality management

Institutional seeting	Statistical processes	Statistical products
1. Professional independence	7. Solid methodology	11. Relevance
2. Mandate of data collecting	8. Adecuate statistical procedures	12. Accuracy and reliability
3. Adecuacy of resources	9. No excesive burden for those interviewed	13. Timeliness and punctuality
4. Commitment with quality	10. Relationship cost-effiency	14. Coherence and comparability
5. Statistical confidentiality		15. Accessibility and clarity
6. Impartiality and objectivity		

– Efficiency on statistical processes with which products are created (principles 7 ot 10): effiency on procedures, no excesive burden to those interviewed, relationship cost-efficiency...

– A institutional seeting that encourage the two previous principles (principles 1 to 6): laws, existence of enough resources, attention to those interviewed, quality management system...

A group of indicators of good practice for each one of the principles serves as reference when analysing the Code application.

At a later time (2011), due to the crisis in the statistical system that accompanied the economic crisis, a revision of said code was carried out. It was widen with more indicators and a complementary document of the same was compiled: the "Quality Assurance Framework", known by its acronym, QAF -[4]).

The content and scope of QAF is especially relevant because it identifies the possible activities and tools that may guide/prove the implementation of CP Indicators, in other words, that clear the path in order to put into practice those Indicators.

Moreover, European Statistical System Committee make the compromise of respecting the fifteen principles stablished in the CP, as well as revising periodically its application using the corresponding good practice Indicators.

[4]Revised and widen in 2015. Eurostat (2015)

2.3 Quality as a strategic objective of the INE: the commitment of applying the CP

Strictly speaking, the CP was conceived in order to be apply to European statistics, in other words, the intended to Eurostat and the European Central Bank. The INE, however, passed a policy of expanding its application in order to cover all official statistics, including the ones produced for national use only .

Therefore, the INE (and the rest of official statistics services) try to progressively adjust all statistical production in order to comply with the Code.

This Code have been adopted as its own by the INE (Art 8), commiting to its compliance when establishing general principles that rule statistical production for national ends. Hereof, the strategical decision of compliance of the Code is a oportunity to contrast the existing measures with a given frame of reference. On the other hand, the adoption and follow-up of guidelines and recomendations on quality generated by the European statistics authority, encourage the comparability and convergence of the countries of the ESS.

But moreover, the INE has engage the rest of institutions that form the statistical system on this approach. The application commitment by the responsible statistical services of the compilation of the Official Statistics, has a legal support: article 8 of the Royal Decree draft approving the National Statistical Plan 2013-2016 establishes the firm commitment to implant the CP in all statistical production, the same included and the statistical services performed by the State Administration.

High Council on Statistics, in its plenary session of 26 July 2012, ruled favourable the draft of this Plan highlighting positively this iniciative, counting with the fovourable reports of the Interministerial Statistics Commission. Similarly, the Interterritorial Statistics Committee (the body that coordinates national and territorial services), in its plenary session of 19 April 2012, issued by majority a reccomendation related with the CP acceptance by the producer services of statistics represented in this Committee.

In a more general level, it is worth noting that this conception has been translated in a concern towards quality too, inspired in the CP, as strategic objective of the insititution.

This is how it has been capture in the last version of the “mission”and “vision” of the INE. (The particular content may be access in the INE website.)

On the one hand, the mission of the INE is expressed in *collecting, producing and disseminating high-quality statistical information (...) in order to attend the needs of the users*" (...).

And, in the case of the Vision, it is highlighted that the INE *in order to continue to be the national and international referent of official Spanish statistical production* [must] (...) *reinforce the quality management system of the INE until create a consistent frame of quality assurance (....), attend to the needs of statistical information of users* (...) *improve continuously the processes of statistical*

production of the INE , (..) *guarantee, as main principle, data confidentiality* (..) *further the reduction of burden of those interviewed (..) promote statistical culture (..)*.

Ultimately, the CP inspires the basic philosophy and criteria of action of the INE and its qualtiy conception and management.

3 Quality management system (I): Administrative structure of quality management

Besides quality indicators of products and process of production, it must be included other aspects of overall quality management, as the existing organizative structure for quality management. In this section is described in detail that structure, composed by a specific Unit dedicated to Quality management, and an interdepartamental body, the Quality Commitee.

3.1 Quality Unit

The quality unit is the specific unit devoted to the INE quality management in all its dimensions. Its main objectives are as follows:

– Promotion of a culture of quality in the organization.

– Systematic monitoring of the quality of the results and the processes, identification and validation of methodologies needed to guarantee this quality and improvement of temporal or spatial coverage of the results.

– Promotion and coordination of the innovations needed in order to optimize the quality and efficiency of statistical products and processes, specially to reduce costs and response burden on those interviewed.

The compliance of these objectives entails additional functions: developing User Satisfaction Surveys; representing the INE in meetings and working groups concerning statistical quality; acting as an interlocutor before national and international Organisms in issues concerning statistical quality and services.

3.2 Quality Commitee

The Quality Committee is the collegiate participation body of the INE units on the development of quality corporate policies. The Committee works according to the specific missions and mandates assigned by the Board of Directors of the INE.

It is made up of:

– A representative from each Subdirectorate General and from the Population Register Unit.

– The Head of the Provincial Delegations Coordination Unit.

– A representative of the Provincial Delegates.

– The members of the Quality Unit, which act as secretariat. The manager of the Quality Unit coordinates the Committee's tasks.

The Committee meets every six months, although meetings may be held more frequently when the issues falling within their competence so require. Persons with knowledge of specific subjects the Committee deals with might be summon

to the meetings, so they can assist the Committee in the development of its functions.

The continuous tasks of evaluation and improvement of the Quality management sistem of the INE analised via this Committee are the following:

– *Calculation of priority indicators of the quality barometer (Priority Quality Indicators) for the statistics of the INE*.

Annually, all Producing Units of statistics compile and provide to the Quality Unit this reduced set of indicators, that allow a overall vision of the quality standards of the statistical products. Since its incorporation to the IME (see section 4.2.1), the Unit of Quality collects them from that source, compiles general charts and presents them for analysis and observations to the Quality Committee.

– *Compilation of quality reports passed by the Producing Units to Eurostat.*

Given that, according to the different european regulations, the corresponding units of the INE compulsory carry out and send to Eurostat, with different periodicities, specific quality reports on different surveys, the Quality Unit collects these reports in order to build a global documentation base of the quality system (see section 4.2.2).

– *Dissemination of good practices*

The Quality Unit compiles annually good practices (according to the European Code) with the information received from the different units. This compilation is presented and analysed by the Quality Committee. The objective is to promote homogeneous dissemination and use thereof by the entire organisation. Said practices are revised in the Quality Committee in order to implement them in all relevant operations.

– *Standards compliance.*

The fundamental objective of statistical standardisation is to contribute to the creation of a coherent statistical system, with concepts, variables and classifications harmonised on a national and international level. Thus, reliable and comparable information in relation to the different sector fields and relevant topics for statistical analysis is assured.

Within this standarization, the need that statistics are accompanied with information on methodology, quality, etc., is also include. That is, what is usually known as metadata. Also in this case, the purpose is that metadata structures are common to all statistics, which allows its comparison and uniformity.

Other basic aspect is the approval of standards on work procedures, in order that all statistics apply tha same technics, based on the same core hypothesis.

In the year 2010, The Board of Management of the INE approved a Protocol for determinating standards, that is, rules that cover all previous fields, in the different scopes of the statistical process. In said Protocol, a procedure for presentation, discusion and approval of relevant standards common to all INE operation was established. This also includes to guarantee that all affected units by each standard

could comment before its approval. The standards approved by the Board of Management, are forced to compliance with by all the statistical operations, and publish a specific place of INE's website

http://www.ine.es/ss/Satellite?c=Page&p=1254735839296&pagename=MetodologiaYEstandares%2FINELayout&cid=1254735839296&L=1

Ultimately, quality principles of CP, refered specificaly to the coherence and the comparison of statistics, but also to accesibility and clarity access, are acquired this way.

The Quality Commitee of the INE, in order to promote the implementation and the compliance with the approved standards, revise in its meeting how they are used by the different units. With that end, the Quality Unit carries out a follow-up of the degree of adjustment of units of the INE to the standards approved by the Board of Management and presents an annual follow-up report in the meetings of the commitee.

Within the set of standars, the following are include:

- On the one hand, statistical classifications.
- Standard lists approved por the INE
- Standard for correction of calendar and seasonal effects in short-term series
- Standard on methodological information for web dissemination
- Standar on documentation of processes of production of statistical operations of the INE.

In all approved standards, the last two, refered to metadata systems and observed in section 4.2.1 and chapter 5, are of special importance due to its effects on the management system and follow-up of the quality of the INE.

The "Standard on methodological information for web dissemination" refers to the adoption by the INE as standard for reference metadata, of the ESMS European classification, which has become compulsory for all operations of the INE. As analysed in 4.2.1, these reports, apart from presenting a detailed and homogeneous description of the methodology of all statistical publications, include a quality report oriented to the user, compiled in the fields 11 to 19 of said classification.

The standard for the documentation of processes is observed in section 5. It has a great relevance, because on the same element it may and must be build a system of quality evaluation of the different stages of the processes of statistical production.

4. Quality management systema (II): Instruments and methods of quality evaluation

A quality assessment and monitoring system made up of a series of instruments and methods that allow to measure the quality of statistical work.

- Quality indicators.
- Quality reports of the different statistical products of the INE.
- User surveys.
- Evaluation systems: including the external evaluations Peer Review.
- Other instruments: INE website.

4.1 Quality indicators

For the progressively introduction of this system based on the CP, in 2011 began the estimations for all INE statistics, the Priority Quality Indicators, also known as Barometer and in 2013 the compilation of quality reports oriented towards the user were introduced.

Quality indicators are summary-measures of the main quality components, applicable to most statistical products and/or procedures developed following the criteria established by Eurostat, (Eurostat (2014-b).

Chart 2. Priority quality indicators.

R1 Rate of available statistical data	TP2 Time between the reference period and the publication date of the final results
A1 Coefficient of variation	TP3 Punctuality
A4 Non-response rate	CC2 Comparable length for time series
A5 Non-response rate by concept	
A6 Average size of revisions	

Source: Eurostat (2014-a)

Part of these indicators is available to users, as they have been integrated into the Standardised Methodological Report which is published for each statistical operation of the INE. (see section 4.2).

The Quality Unit of the INE performs an annual monitoring of said indicators for the different statistical operations; the results are analysed and presented in the periodical meetings of the Quality Committe (see section 3.2).

4.2 Quality reports on statistics

4.2.1 QUALITY REPORTS ORIENTED TOWARDS THE USER

The second type of instruments for quality management, are the so-called quality reports: summary documents that synthesize all relevant information in order to evaluate the degree of compliance with the quality levels required for a statistical operation.

Here we can find different types of reports.

In the first place, in 2013 an important project finished meaning the existence for all statistical operations of the INE of a so-called Quality Reports of Products "Oriented towards the User", that also follow a common methodology and structure.

These reports are included in a metadata file, the so-called "Standarised Methodological Report", that is publised with each statistical operation of the INE since 2013. It consists in one application of the ESMS European classification (Euro-SDMX Metadata Structure), that contains reference metadata of each statistical operation.

In agreement with the Recommendation of the Comission of 23 June 2009 on reference metadata for the European Statistical System, the ESMS is intended to create a common structure in order to disseminate metadata reference of European statistics and encourage the exchange of information of the ESS. It is being deployed progressively in the national statistical institutes, being the INE in this case the most advaned, having accomplished the application in all statistics that they compile.

The recorded 21 concepts are presented schematically in chart 3. The complete structure, including the breakdowns in different sub-concepts have bieen compilled in anex 1.

As it may be seen in chart 3, statistical metadata are included on quality matters(punctuality, relevance, accuracy, coherence and clarity are defined and measured through a set of metadata). As a matter of fact, areas 11 to 19 of that classification are considered to be a Quality report of the product "oriented towards the users"; orientation towards the users is justify due to the information required, although rather complex, is mainly qualitative and with a rather synthetic nature.

Chart 3. Structure of the "Standardised Methodological Report" (ESMS).

1. Contact	12. Quality management
2. Metadata update	13. Relevance
3. Statistical presentation	14. Accuracy and reliability
4. Unit of measure	15. Actuality and timeliness
5. Reference period	16. Comparability
6. Institutional mandate	17. Coherence
7. Confidentiality	18. Costs and burden
8. Dissemination policy	19. Data revision
9. Dissemination frequency	20. Statistical processing
10. Dissemination format	21. Observations
11. Accessibility to documentation	

Source: See annex 1.

Given that according to the agreements adopted by the Board of the INE all statistical operation published in the website of the INE must be accompanied with the correspondent "Standiresed Methodological Report", currently a quality report for all statistical operations is compiled. Similarly, in order to widen its scope, Priority Quality Indicators have been incorporated.

4.2.2 QUALITY REPORTS ORIENTED TOWARDS THE PRODUCER

Quality reports "oriented towards the producer" have a higher degree of requirement: they collect quality aspects and indicators, with a higher degree of detail and technical rigour, in general linked to process descriptions, and because of their nature they are mainly oriented towards the needs of information and documentation of statistical producers.

The INE, as a member of ESS, participates in the manufacture of European Statistics under the corresponding regulations. They stablish the work methodology, and in its case, the quality reports on said statistics. Currently, Eurostat is progressively introducing the ESQRS classification (ESS Standard for Quality Reports Structure - Eurostat (2014-b)-), a standard precisely design for quality reports oriented towards the producer.

This additonal standar has surge because, even though some of the quality concepts are already included in the ESMS, it has appear the need of a more detailed structure for the compilation and dissemination of quality reports (oriented towards the producer) and that it was a standard, a common classification, thus there is no homogeneity among the structures used for quality reports in different statistical scopes. Therefore, this ESQRS standar has been designed for quality reports "oriented towards the producer" of European Statistics.

ESQRS is progressively deployed in order to compile national quality reports of the National Statistical Institutes, included the INE in Spain.

All statistics fo the INE that compile quality reports for European institution, -being or not in ESQRS format-, provide a copy to the Quality Unit for their archive and its use in monitoring plans and quality improvement.

4.3 User Satisfaction Surveys

User Satisfaction Surveys are periodically carried out in the INE (every three years since 2007). The last one was the one refering to the year 2013.

The objective of theses surveys is to know their opinion and degree of satisfaction with statistics, as well as to detect new information needs.

A notable feature of these surveys is that they have been used (among other objectives) as a base and orientation in the process of strategic planning of the INE. For example, the 2010 survey was one of the references for the 2013-2016 National Statistical Plan and the most recent 2013 survey serves as input to the development of the next 2017-2020 Plan. Thus, one of the main principles of the quality systems and the European Statistics Code of Practice is complied with: Taking care of users as a basic element of the statistical system.

The results of these surveys may be query in the website of the INE, in the section dedicated to Quality. As a updated example, the most recent survey, the one corresponding to 2013, it is going to be summarised.

On chart 4, the structure of the questionnaire has been syntethised. As it may be seen, along with the questions that allow to define users (statistics used; using purpose; frequency of use); the questionnaire tries to cover the different principles of the CP, as well as to obtain information on general perceptions on quality and reliability on statistics, and information on news of information.

Chart 4. Structure of the 2013ESU questionnaire by blocks of questions

Blocks	Principles of the CP more linked to the questions	Detail of the questions in the questionnaire
1.	quality	- Group of statistics used. - Purpose. - Frequency of use.
2. Quality of products	- Relevance. - Accuracy. - Timeliness - Coherence and comparability	- Specific questions for each principle and each group of statistics
3. Dissemination	- Accessibility, clarity	- Assessment of the calendar. - Other aspects: means and products used; opinion on the website; on further information
4. Quality and degree of reliability: General perception	----	- Question on general quality - Question on degree of reliability
5. Needs not covered	Relevance	- Open question on statistical needs

Thus, there is a block of question that asks on concrete indicators about quality of the statistics. In this sense, quality criteria of the "statistical product" have been followed, as define by the CP (relevance, accuracy and reliability, timeliness, coherence and comparability) and specific questions have been assigned to each criteria:

On the other hand, research have been conducted on satisfaction with disseminetion aspects of products; in other words, all that has to do with the way in which statistical information arrives to the user: ways of information access, valoration of the website - main mean of access to INE information -, valoration of the further information or metadata (definitions, classifications, methodological descriptions), stadistics publishing calendar usefulness.

In the questionnaire are also included questions of general nature, intended to capture the global perception of users about production quality of the INE as a whole and the "degree of reliability" offered by statistics. In both cases a users are asked to justify their answers, if the want, with an additional comment. They are thus question with "open" answer options in which the user can express freely his or her comments and opinions.

Finally, in a "open" question, those interviewed are asked to indicate specifical statistics (or variables/parcial aspects of the same) that are not covered currently by the INE and that they considered that should be deployed in the future.

Although it is a purpose for all surveys in general, it is worth noting that this question of "not covered needs" is a very useful element in the planification of future works of the INE, and the design of "Plans" and action programmes.

Also it is worth noting that this survey 2013 was conducted exclusively via on-line systems, entailing a series of advantages, as reaching higher rates of response -due to the use a system that ease to its full potential the compliance by the user-; ease the work of survey treatment and management; and last but not least, there is the lower cost of this type of surveys as compared with any other collection method.

Besides the general satisfaction surveys on statistical production, the INE conducts users satisfaction and opinions surveys on specific services and products of dissemination: on Information Services of the INE (October-November 2008); on the Statistical Yearbook (2008); on "Spain in Figures" (2008).

4.4 Quality global evolution: Peer Review

Apart from the rest of existing mechanisms for external evaluation of quality of the production, the INE as part of the ESS, participates in the programmes of general evualuation of EUROSTAT as the called Peer Reviews (PR) revisions (evaluations made by equals). They are assessment exercises of the situation or the practices of a country in a particular field. The purpose of this exercise is to help the country subject to review to improve its formulation, in this case statistical, to adopt best practices and to comply with the principles and rules established.

Background: Peer Review 2006-2008.

For the manufacture of national and European policies solid and high quality data and analysis are required Statistics have to be perceived as credible and reliable, and free of any influence and interference. CP and its principles establish a framework of credible and reliable statistics.

PR evaluations are part of the ESS strategy to deply the CP. In this strategy, the main objectives of Peer Reviews are to improve transparency in this process and the responsibility of agents involved in it, to identify difficulties and delays regarding the compliance with the Code and to promote transfer of knowledge and experiences through the identification of good practices.

Ultimately, its objective is to improve integry, independence and responsability of statistical authorities that form the ESS.

A first round of the PR was conducted in 2006-2008. There were approched institutional dissemination practices covered by the principles 1 to 6 and 15 of the CP and some aspects of the coordination function of each statistical authority within its statistical system.

All countries of the EU participated in it (as in the second round), as well as the ones belonging to the European Free Trade Association (EFTA) and Eurostat. In other words, it is conducted to the whole ESS.

The Commission Report 2008 on the application of the Code of Practice forecast other round of the PR in a term of five years.

However, the financial and economic crisis and the answers to the same, put statistics in the forefront of policies formaulation and changed the context of PR. On the one hand, there were several important events(the new version of regulation 223 on statistics, the creation of ESGAB[5] and ESAC[6],Commssion Comunication "Towards a solid management of European statistics quality", revised regulation EDP[7] etc.)

Besides, in response to a Special Report of the Court of Auditors ("Can the Commission and Eurostat improve the production process of reliable and credible European statistics?"), the Commision proposed a plan of action in order to conduct a new round of PR, and in November 2011 the CSEE passed a set of recomendations for its deployment.

The second round: 2013-2016.

The second round started in December 2013. The fundamental part of the process (revisions themselves and publication of reports of the countries) finished in September 2015, and there is left only a manufacture phase by European authorities of a general report that cover all the process (forecasted for 2016).

The new round is based on successful elements of the previous round, but it is more ambicious due to the change of circunstances and the economic and financial situation aforementioned.

That greater scope appears in the first place in the objectives of the new round of PR: "To increase credibility of the European Statistical System"; "To strengthen the capacity of the system to produce European statistics"; "To reassure those interested about European statistics quality and releability on the system"; "To asses progress performed in compliance with the principles of the CP"; "To asses progress performed in the developement of the very ESS".

Consequently with those wider objectives, it is more ambicious and complete than the first:

– Regarding the aspects to asses. Thus it covers all principles of the CP; besides the coordination function of the INE is analyse within the national statistical systems; and as well cooperation and integration level within the ESS. It tries to asses progress performed in compliance with the CP and identify areas in which a greater progress should be made. It is worth noting the good practices of different countries when deploying the CP.

– Regarding the institutional seeting. It includes the other components of the ESS (the previous round focus solely in the INEs).

– Regarding the revision approach used, it is more requiring and closer to an audit.

[5]ESGAB: European Statistical Advisory. Expert groups independent from statistical insitutes, whose work is to audit and supervise Eurostat quality and to help Eurostat in the supervision of the ESS
[6]ESAC European Statistics Consumer:
[7]procedure for excessive deficits

Indeed, Peer Reviews consist, as audits, of three different phases but closely linked between each other:

1) Self-assessment of countries. The INE complete self-assessment questionnaires (three questionnaries corresponding with the compliance with the CP, the coordination within the national statistical systems and with cooperation/integration level of the ESS), which must be accompained of documetnal tests that justify what is exposed in the questionnaires. These self-assessment questionnaires have its roots in the QAF (Quality Assurance Framework)

2) Revision exercise (proper PR). It is conducted by independent experts, in agreement with an audit approach: for example, all answers to self-assessment questionnaires must be supported in tests. Revisors teams were formed by three experts, responsible for the assessment of the answers to the questionnaires.

Their work consists on:

– A detailed analysis of self-assessment questionnairies and documentation provided by countries.

– Visiting those countries. Assessments are complemented with a five-day visit to each country. The visits to the countries are used to assure comprenhension by revisors about the national context and documentation, and to explore specific themes identify in the documentation earlier analysis.

– Preparation and publication of reports on the country. As in the previous round, the teams of revisors put the results of the revision in a report on the compliance with the CP. The INEs have the oportunity to correct errors and to establish, in a separate chapter, their point of view on report conclussions and recommendations, if those differ with that of the revisors. This report is made public in Eurostat website. The chapter on differences is part of the final report.

3) Action plan for improvement. In response to the recomendations of revisors, the INEs manufacture of improvement action plan, which will have an annual control by Eurostat. Action plans for improvement are published in Eurostat website too.

Eurostat is preparing a report to the European Parliament and Council that summarises all the process and extracts teachings, recomendations and good practices for the set of countries. We estimate that the approval of the report by the communitary bodies will arrive on the first half of 2016.

Peer Review in Spain

The participation of Spain and specially of the INE in the second round of the PR has been rather intense.

During the preparatory phase of the process, between December 2012 and November 2013, the INE participated, along with other countries, in a work group coordinated by Eurostat, whose purpose was to prepare revisions. Among other important tasks, it is worth noting the manufacture of self-assesment

questionnairies, later used in revisiones, and the design and the specification of methodology and aproximated terms for all the process.

The phase of preparation and completion of questionnaires and documentation extended from December 2013 to May 2014. The PR visit to Spain took place between the days 17 and 21 November 2014. The process was completed on the first quarter of 2015 with the publishing of the final report of the Improvement Action Plan in Eurostat website.

The results of the process for the INE, with all the effort performed, may be considered as positive. On the one hand, due to the report's positive nature that in general terms, having recognise the different strengths of our statistical system and the high levels of credibility and reliability of the INE according to its users. On the other hand, because the recommendations of revisors and the following improvement action plan constitute a crucial aspect in the future strategy of the institution. In this sense, the PR has been included in the Statistical Plan 1017-2020, currently in manufacturing process; in other words, the PR has significant effects at the medium and long term statistical work.

4.5 Quality management in the Spanish Administration

Apart from the specific quality management system the INE, which is the one applicable to an official statistical office, there is a global system of quality assessment of the Spanish Public Administrations services. This task is carried out by entities such as:

– State Agency for the Assessment of Public Policy and the Quality of Services: Assessment reports on quality of services. The AEVAL is a public organism created in 2007 and governed by Law 28/2006 of 18 July, on State Agencies for the improvement of public services. Through the public services quality Observatory, it permanently analyses the quality of public services, suggesting general initiatives for its improvement. In order to do so, it conducts a series of Assessment reports on service quality.

– General Inspection of Services of the Ministry of the Finance and Public Administrations. As of the publication of Royal Decree 951/2005, the General Inspection of Services of the Ministry of the Finance and Public Administrations annually draws up a report which summarizes the measures for promoting quality undertaken within said Ministry, among them the programme of Analysis of User Demand and Satisfaction, the programme of Letter of Services and the programme of Complaints and Suggestions.

4.6 Dissemination of the quality system to users: website on quality

The quality of statistics depends first and foremost on that they adapt themselves to the needs of users, that they are manufacture with a solid methodology, etc; that is, the different dimensions considered in the CP. However, in order to the

users to have a clear perception on quality of statistical production, they must be duly informed of the same. Regarding the transparency aspected mentioned in section 2.1 of this document, according with Fellegi (1991): users must perceive that the institution carries out actions in order to assure the quality of the products.

Quality dissemination policy of the institution and all aspects related to the same, are thus essential in order to accomplish that objective and, in the end, a closer approach of the work of the INE to the society.

This work of dissemination has been promoted decisively with the creation in 2014 of a specific section in the external website of the INE intended to the dissemination of all quality iniciatives and the compliance with the Code of Practice.

In the external website of the INE, information on quality already existed, although scattered in different sections. Previously, information on quality was in a specific location of the intranet of the INE (restricted to the personnel of the INE). In the new external website, accesible to all users, all that existing information have been compiled and updated, in the externa website as in the intranet, and new contents have been included.

Part of the information of the section corresponds to works carried out by other horizontal units (mainly Methodology and Dissemination Units) due to its closeness with Quality.

For the first time in the history of the institution, a free access procedure exists to any user of the INE, through which different iniciatives and activites that the INE developes are disseminated.

In the site appears all information that may be summarised in this quality guidelines, including links and updates of the CP and QAF, the access to a global site of Standarised Methodological Reports, the three Satisfaction Surveys to Users conducted by the INE, etc.

It consists on a dynamic website, therefore information is permanently updated with developements, which are introduced in the quality management system. Examples of this future promotion are: the incorporation of all the material that is generated arround the current Peer Review; or the future creation of the website dedicated to the Conference on Quality, that the INE is going to co-organize with Eurostat in 2016.

Apart from the website, Quality dissemination is being promote via social networks, such as Twitter (@_es_INE), the YouTube channel for INE dissemination (INEDifusion), etc.

5 Production Process Model

5.1 GSBPM adaptation to the production model of the INE

Production processes documentation is a basic element in any organisation. It is essential to know and document the production methods.

But that is not enough. A description is needed following a common pattern to all the organisation, for all production description of different processes or products to have a common format and the organisation is available to analyse each part of its processes, identifying good practices, detecting the lack of common tools, etc.

Besides, this aspect is essential to any organisation oriented towards the production, since it apport several assurances to the Institution. It is worth mentioned, among others:

– It standarises the knowledge in the way that it is produce in the Institution assuring thus that the process is developed as the Institution determines.

– It provides of continuity assurances in time versus mobility of persons.

– It allows the analysis, assessment and improvement of production processes.

Statistical institutions, such as the INE, need to move forward towards a standarised and industrialized production process; this is a necessity that has been accentuated with the reduction of resources and growing requirements of information.

In order to carry out this strategy documentation international standards of production processes should be followed, which allow to compare the form of production between statistical operations within the INE, but at the same time with other producers of the National Stadistical System and of the ESS, always looking to improve efficiency.

In this context, the GSBPM (Generic Statistical Business Process Model) is international standard consolidated and adopted by several stadistical offices and international organism that suggest a processes and subprocesses structure of the model statistics production. For this reason, the INE has adopted (through an agreement of the Board of Directors) the GSBPM model as a reference classification and as lenguaje in order to decribe the production model of any statistical operation of the INE and for the communication between different units (included in chart 5).

Chart 5. Classifcation of the production process model based on the GSBPM

1 Specifying needs	2 Design	3 Developing	4 Collecting data	5 Processing information	6 Analysing information	7 Disseminating	8 Assessing
1.1 Identifying needs	2.1 Designing results	3.1 Developing collection tool	4.1 Creating a framework and selecting sample	5.1 Integrating data	6.1 Preparing results	7.1 Updating result systems	8.1 Gathering inputs for assessment
1.2 Consulting and confirming needs	2.2 Designing variables	3.2 Developing and improving processing components	4.2 Initializing collection	5.2 Classifying and coding	6.2/ 6.3 Validating results; interpreting and explaining results	7.2 Producting dissemination products	8.2 Executing assessment
1.3 Determining statistical results	2.3 Designing collection	3.3 Developing or improving dissemination components	4.3 Data collecting	5.3/ 5.4 Revising and validating. Flitering and imputing	6.4 Controling statistical secrecy	7.3 Managing information on dissemination products	8.3 Agreeing on an action plan
1.4 Identifying concepts	2.4 Designing framework and sample	3.4 Configuring work flows	4.4 Finalising collecting data	5.5 Deriving new variables and statistical units	6.5 Finalising results	7.4 Promoting dissemination products	
1.5 Analysing available data sources	2.5 Designing processing and analysis	3.5 Testing production system		5.6 Calculating raising factors		7.5 Managing users	
1.6 Compiling the statistical proyect	2.6 Designing production systems and work flows	3.6 Testing statistical processes		5.7 Calculating aggregates			
		3.7 Finalising production system		5.8 Finalising data files			

After a period of pilot applications, in December 2013, the Board of Directors agreed to promote the used of said model for the description of production processes of different statistical operations of the INE. In order to response to this agreement, a project has been established with a series of concatenated phases and with the final purpose is to set out a final template for process metadata, similarly as what happen with reference metadata (standarised methodological report).

Ultimately, the final objective is that every statistical operation of the INE has its process methodological report, described with a standard structure.

The phases of the project are as follows:

– *Phase 1:* The starting point for the preparation of the standar was the pilot expirience to recopilate documentation on seven statistical operations following the GSBPM (between January and June 2014).

– *Phase 2:* With the experience and information gained in the previous phase, a work group of different units was created in November 2014, with the objective of manufacture a process metadata file that meant the adaptation of the GSBPM to the needs and the way of producing of the INE.

The result was the definition of a third level of tasks, specific to the INE, that breaks down the second digit of the GSBPM. This decision was made with the objective of assuring the completeness of the tasks that form every subprocess of the GSBPM and that their descriptions were enough and similar between operations. Thus, documentation of all operations has a uniform structure and a homogeneous level of detail, allowing the analysis of this information for assessment and improvement of processes, looking for a production system as integrated and standarised as possible.

It is worth noting the complexity of tasks developed in this project, since it inherits the developement of a metadata editor of process that allows to record, storage, manage and treat those metadata.

Besides, in order to be available to visualise and understand the production process, the group included in the standard the configuration of work flows in a task level following the BPMN 2.0 (Business Process Modelling Notation) lenguage.

This structure was passed (in its provisional version) in April 2015 and has been collected in annex 2 of this document.

– *Phase 3*: Deploying the process metadata file in all statistical operations of the INE. This phase will extent up to June 2016.

Within this frame, a set of quality indicators began to be developed in the different phases of the process. This indicators will be incorporated as detailed of the previous templates for the completion of process metadata in agreement with the classification of the INE.

5.2 Metadata system and production model

Metadata are a key element of quality in statistical production. Although the concept of metadata inicialy was conceived as that information neceessary to interprete correctly statistical data when disseminating, currently metadata systems of statistical offices cover all phases of the process of the cicle of life of a

statistical operation. Manufacture and improvement of metadata systems has been a promotion and improvement of the very statistical system in many offices.

On the other hand, with the adoption of the CP, statistical authorities of the member States have commited to produce high quality statistics that require a more transparent and harmonised information on methods and the very data quality. Moreover, principle 15 of the CP (accessibility and clarity of statistics) highlights that support metadata must be documented in argreement with standarised systems.

In fact, the existence of metadata standards common to the organisation, applied specially to the description of statistical processes, may become one of the main cornerstones in order to the INEs to achieve productive efficiency. In fact, the adoption of those common classifications and the documentation of processes in agreement with the same, ease the integration of the processes, the analysis of quality aspects and the introduction of improvements in the phases of the process, allow to reuse tools and procedures in different processes, etc.

Generally, there are three types:

– Reference metadata. Metadata oriented towards the product, that describe the content and quality of statistical data and statistical production process.

– Process metadata. Metadata oriented towards the process, that describe the content and quality of the statistical production process, for instance, defined in terms of GSBPM.

– Structural metadata. They are defined as necessary information for using and interpreting data bases. Here are included the concepts and classifications.

We could even talk about an additonal category, "metadata refering to quality" when they are focus on describin specific control elements and quality management of statistics (the example is the ESQRS mentioned in section 3.2). Nevertheless, this fourth category is many times considered as integrated in the first two, thus it seems forced that they include information on quality in greater or less detail.

The INE have developed standards (usualy adapting the existing in an European level) for all type of metadata:

– In reference metadata, through the deployment in all operations of the INE of the called "Standarised methodological report", that follows the standard ESMS (see section 3.2.1).

– In process metadata, through the project currently on its way of adaptation of the GSBPM to all operations of the INE (see section 5.1).

– In structural metadata, tools for management and structural metadata treatment are developed: repositories of classifications or lists of dissemination and of concepts and definitions. (See INE website: http://www.ine.es/ss/Satellite?L=es_ES&c=Page&cid=1254735839296&p=1254735839296&pagename=MetodologiaYEstandares%2FINELayout).

– And in quality metadata, as aforementioned, as the deployment of ESQRS in the different statistical operations becomes general.

6 Aspects of the relationship of those interviewed: reduction of the statistical burden and preservation of the statistical secrecy

6.1 Actions for the reduction of the statistical burden

The "statistical burden" or "burden supported by those interviewed" of statistics referes to the effort, in terms of time and cost, required by those interviewed to provide satisfactory answers to a survey. But, apart from the previous burden, they include other concepts, some of them intangible, difficult to cuantify in economic terms, such as, for example, the "fatigue" that involve to participate repeatedly in surveys.

Statistical services are rather concious of the burden supported by those interviewed with the growing demand of information. The Statistical Law (LFEP[1]), that rules the national statistical activity, already established the proporcionality principle as basic principle , thereby "the correspondence criteria will be observe between the amount of information required and the results pretended to obtained after its treatment".

In turn, the response burden issue is addressed by several of the principles in the CP and, in special, the principle 9 recomends:

Principle 9: *Non-excessive Burden on Respondents - The reporting burden is proportionate to the needs of the users and is not excessive for respondents. The statistical authority controls the reporting burden of answering the survey and fixs objectives to reduce it progresively.*

The reduction of the statistical burden is one of the basic acting criteria for the INE since its adaptation to the CP. The following are some of the main actions developed by the INE in this field.

1. Measuring programmes and reduction of reporting burden

In 2000, the called Partnership of Informant Units Directories (DICOIN) began to be compiled, which analise the burden on enterprises. For each enterprise, the number of surveys carried out and the number of questionnaires received, and several indicators of annual burden for each of the units of the sample frame are compiled.

Since 2008 the burden is meassured, not only for surveys to enterprises, but also for the ones oriented to households, including the time lapses of reporting the surveys (meassured as the necessary for the seach of the information, completion of the questionnary and the determination, in its case, of the reclamation calls of the INE). In the case of surveys to enterprises, the difference between this information and the collected in the DICOIN is that, apart from including the time

[1]The operation of the INE and the national statistical system is basically governed by 12/1989 of 9 May, Law on the Public Statistical Function -LFEP-. It assigns to the National Statistics Institute planning and compiling statistics developed by the State Administration and depending entities and organising its statistical services.

lapses of reportin, it meassures the burden basing on units that have collaborated, excluding frame errors.

For surveys to households, in the directory is collected collaboration information of households, which is taken into consideration when the samples are extracted; moreover, foreseeing household surveys obtained by other frames, exists a special incidence that compiles situations in which household have already participate in INE surveys. .

Burden indicators are analysed periodically, what allows to introduce improvements in sample coordination and accomplish a better distribution of the statistical burde, in both enterprises and households.

The reduction of burden strategy covers several procedures:

In the case of surveys to enterprises:

– Negative coordination, whose objective is that there is the minimum overlap or coincidence in the samples for the different surveys obtained in the same year. Negative coodination is look for also in the time of economic structure surveys, with the aim of avoid, if possible, that a enterprise is chosed more than two consecutive years for the same survey.

– Rotation procedures are apply to surveys on economic situation.

– There are simplify questionnaries for small enterprise of the Industrial Companies Survey, Annual Services Survey and Survey on ICT and Electronic Commerce use in enterprises.

In the case of surveys to households, there are similar procedures: As indicated, there is information in the directory on surveyed units and a specific incidence for detecting previous collaborations. The aim is to avoid, if is not justify by budget reasons, that same unit is chosed repeatedly, trying that it is not survyed again after three years.

In 2012, the INE adopted an important agreement (Interministerial Statistics Commission Plenary Session) on dissemination of actions to reduce statistical burden. It was agreed that for each statistical operation included in the annual programmes fo the National Statistical Plan 2013-1016, "to provide detailed information on specific actions with direct or indirect effect of reduction of burden suppported by those interviewed during the year" was compulsory.

This action was introduced in the annual programm of 2013 corresponding to the said Plan, it was included in the following annual programmes and it has been foreseen for the next Plan 2017-2020.

Information on these actions, for all national statistics, is available (in the INE website) via two routes: in the corresponding Annual Programm are detailed the foreseen activities according the description provided by each producer unit; and in the Inventory of Statistical Operations of each year appear the section "Activities to reduce the burden...", carried out in said period.

2. Promotion of the new telematic means of data collection

The promotion of electronic data collection for surveys has been a continuous strategy of the INE, in order the foster its compilation (reducing the burden in terms of time). Surveys to enterprises lived the most important advances, although currently transformations have been made in surveys to households too.

In 2006, the INE developed its own system: ARCE (storage and collection of economic questionnaries) for the collection of online data in surveys to enterprises. In 2013, this system began to be replace by IRIA, a new innovative system, design for multichanner collection and that is going to become in the collection standard for all statistical operations (Bercebal et. al (2015)).

Since 2010, INE website includes a page through which those interviewed, both households and enterprises, can access to the completion of surveys.

Since 2007 the possibility of data collection via sending XML files directly by the surveyed enterprises has been incorporated. This system is being deployed in surveys on turist accomodations In order to promote the use of this procedure, in 2015 the possible to apply for subside has been offered to establishments, in case they have to prepare their information systems to generate XML files.

3. Administrative sources and UFAES project

The use of administrative sources with statdistical purposes is part of the usual activity of the Spanish National Statistical Institute (INE) in several areas, specialy in thorough statistics with administrative origin, in the creation of frames and instruments of statistical infrastructure, specialy for registres, in summary operations (national accounting, indicators systems), and as support in data depuration, imputation and analysis. More recently, in the last few year the field of direct use (micro data) has become wider for operations by sampling oriented to households (Active Population and Living conditions Surveys among others).

The collaboration agreement between the INE and the Tax Administration State Agency (AEAT) of 2002 has significantly helped, as well as the general statistical legislation of the EU and the specific rulings of the EU on transfer of administrative data for the compliance of the obligations of providing information of the states member.

To this end, it is assesed the possibility to obtain information using administrative sources with the adequate quality. The use of administrative sources as alternative to surveys includes as well the removal or not inclusion of question in the questionnaire due to use information coming from said sources.

The result is that the number of used administrative surces grew considerably in some stages of the statistical process, as well as the number of statistical operations that use this type of data. As June 2015, 30 statistical operations are based exclusively in administrative registres and other 41 use administrative information significantly during different phases of the production process.

It is worth noting the UFAES project (Saralegui et al. (2012)) that means a new qualitative step in these activities, with objectives towards reducing significantly the sample size of large structural operations of enterprises in the INE.

It involves promoting quality on stimations as of a direct complete observation (in the sense of having been obtained as of a survey conducted with a sample size as the current) during the first year of a biennium, while in the year the direct observation will be reduced compensating these losses in the sample sizes with the efficiency earnings from a supplementary subsample from the survey of the previous year, updated with stimations and imputations aided by models related to the change in tax variables associated with target stadistical variables.

This project has allowed to reduce significantly the sample size of surveys to enterprises.

4. Other actions with effect in the reduction of burden .

4.1. Selective filtering.

Selective filtering technics, although it has other wider objectives, linked to that phase of the production process, allow to reduce the statistical process, thus it reduce the number of re-contacts needed with those interviewed in order to filter questionnaires.

4.2. Personalised and free of charge reports for collaborating enterprises in surveys.

This practice has acquired a vast experience in the INE[2]: in order to promote the response raton in surveys to enterprises, the INE provides for free of charge to the surveyed enterprises a specific, personalised information, with interest indicators for the activity of the enterprise: for example, national and regional market quota estimate; number of enterprises with a higher market quota stimate; analysis parameters of sector structure...

This procedure has been applyed in structural surveys (annual) to industrial enterprises or in Innovation and R+D surveys. It is also applied in some surveys on turist accomodation, providing to surveyed establishments a type of specific operation of the sector (rates and incomes per room, level of occupancy of the establishment comparing with others in the same province and category, etc.).

6.2 Confidentiality policy: preservation of the statistical secrecy

The INE bases its work on the trust that citizens and companies have in it, through the information that they provide, and it is necessary for society and the institutions to entrust the National Statistical System with the statistics so as to ensure their compilation. At the base of this trust are the guarantees that chapter

[2]It was mentioned as example of innovatice "Good Practice" of the INE in the Peer Review revision report, carried out to the INE in 2007 by a team of European experts. See:
-http://www.ine.es/ine/codigobp/469-331-es_report_final_15feb_es.pdf8

3 of the Law on Public Statistical Services (LFEP) establishes, which protects secrecy for all individual information handled in the different phases of statistical production.

Spanish legislation has strict rules regarding the protection of personal data and the security of the media where such data is stored, (Organic Law on Data Protection and the National Security Framework, among others), as well as auditing bodies of those procedures established in said rules.

On the other hand, the regulations that have been passed in the EU on this subject for the preparation of community statistics (Regulation 223/2009, Regulation 557/2013) are applied directly.

Apart from that, the CP recommend in its principle 5 different proceducres and actions that allow to asses that confidentiality is kepth.

In order to guarantee full compliance with its legal obligations in terms of the protection of statistical secrecy, and in its intention of remaining worthy of the trust of its respondents, the INE bases its actions on the recommendations fo the CP (they are detailed in the INE website: http://www.ine.es/en/ine/codigobp/politica_confidencialidad_en.pdf)

Principle 1: "To establish effective procedures for the custody of confidential information that is managed throughout all the phases of the statistical process". (Related to 5.5 indicator of the CP.)

Principle 2: "To guarantee the knowledge of all personnel in the organisation of the obligation of preserving statistical secrecy, and of the procedures established to this end at any given moment". (Related with 5.2, 5.3 and 5.4 indicators of the CP.)

Principle 3: "To notify survey participants regarding the protection that is provided for the data supplied". (Related to 5.4 indicator.)

Principle 4: "To notify statistics users of the restrictions on the information provided, for the purpose of the protection of statistical secrecy". (Related to 5.4 indicator.)

Principle 5: "To guarantee the preservation of statistical secrecy in those cases of the lending of confidential data, set out in the LFEP, to other institutions with statistical responsibilities or jurisdiction". (Related with 5.6 indicator.)

7 Quality on taking care on users

7.1 Dissemination policy of the INE

Phase 7 of the GSBPM refers to the "Dissemination" of the final products for users, with a remarkabla detail on sub-phases included in those activities (see chart 5): update of result systems; manufacture of dissemination products; disclosure of dissemination products; promotion of dissemination products; users management...

The statistical dissemination policy defines criteria and recommendations on this phase of the production process and adapts itself to what is established in the LFEP, covering the entire practice of the mentioned sub-phases and taking into account the CP recommendations.

Thus, the following appear as general principles of the disseminetion policy:

- Impartiality and objectivity: The statistics shall be disseminated in a manner that is impartial and objective, with equal treatment for all statistics users.

- Accessibility and Clarity: All information users shall have the most suitable technical means available to guarantee efficient access, and the dissemination shall be carried out in a clear and comprehensible way.

- Statistical secrecy: The results of the statistical operations shall be disseminated in such a way that confidential information remains protected.

- User orientation: The dissemination of the statistics shall be oriented toward meeting the needs of users. In turn, specific user care services shall be made available to statistics users, in order to achieve the most comprehensive use of the information published.

- Transparency: The methodologies which the statistical products are prepared with, the quality parameters of these products, as well as the publication calendars, prices of dissemination products, etc., shall be notified to users clearly and with sufficient advance notice.

- Punctuality: The statistics shall be published according to the previously established calendar, and notified to users.

- Free of charge: The results of the statistical operations considered in the general dissemination plan for each operation shall be disseminated free of charge.

- Re-use: Efforts will be made to enable the re-use of the statistical information by other agents, via the use of technical resources that permit performing this task in the most efficient way.

The statistical dissemination policy is defined, based on the decisions made regarding the following aspects:

- Storage and publication of statistical results on the website

- Correction and communication of errors.
- Publications calendar
- Relations with the media
- Distribution of statistical results by request
- User information channels and services
- Customised requests
- Publishing activity
- Prices of the information
- Licences to use the information
- Detection of users' needs
- Dissemination activities in the social networks
- Promotion of the use of statistical information

On the INE website, it is available in detailed (http://www.ine.es/en/ine/codigobp/politica_difusion_en.pdf). Some of the most important elements of said policy are summarised as follows:

Storage and publication of statistical results

That official statistical information that the INE produces is disseminated free of charge via the website, and access to the information is guaranteed to all users under equal conditions. The information provided via the INE website is continuously updated, following the established publication calendar.

Statistical operations metadata, series that allow temporal and spatial comparison of published data, publication dates or last update of the contents are detailed of all published via the website of the INE.

ERROR CORRECTION AND NOTIFICATION

The detection of errors and their rapid correction and notification constitute a practice that ensures the quality of the information published and of the service that the INE provides to statistics users.

Criteria for error correction and notification are:

– When a form error is detected in a publication, it is corrected immediately, and the information is published again;

– In case of content error: A notice that the information has been corrected will accompany the affected information, and if it is possible to identify the users who have accessed this information (press release recipients, custom request users, acquisition of files or publications users, etc.), they will be sent a notification of

the correction made. The errors will be recorded in a special register for subsequent analysis.

This will include the description, the dissemination product affected, the date of publication, the date that the error was detected, the correction date, and the notification actions carried out, etc.

PUBLICATION CALENDAR OF THE RESULTS OF THE STATISTICAL OPERATIONS

The INE shall establish the publication date of the statistics independently. For this, technical criteria will be used, paying special attention to the opportunity criterion, understood as the minimum term in which the information may be available to all users, meeting the required quality standards and bearing in mind the commitments acquired with international organisations.

DISTRIBUTION OF STATISTICAL RESULTS UNDER EMBARGO

Pursuant to the CP, access may be granted to information, prior to its official publication, to certain persons, though with a limited, controlled and public nature.

USER CARE CHANNELS AND SERVICES

To facilitate access to all users to its products and services, the INE provides different care channels in which user may present queries and request the offered services (customized consultancy on availability and meaning of official statistical information, customized request of information, certification of official statistical information, subscription to news channels, telephonic service system, emails, telephones of contact published of the information services where users may request specific questions on those services...)

Those commitments relating to the quality of each of the services available will be established in the INE List of Services.

CUSTOMISED REQUESTS

In addition to the information published on the INE website, users may request special information uses, generally with a greater territorial or sectoral breakdown level.

7.2 Data revision policy

Revisions of data constitute a practice that is inherent to the production of statistics, and there are two types:

– Ordinary or routine revisions. For some statistics, in which users particularly value having data as soon as possible, the initial estimates are published with the expectation that they might be revised and updated when new data is available. This is characteristic of short-term statistics, such as the monthly or quarterly statistics.

– Large revisions. Revisions also follow changes in data sources, in concepts, definitions and classifications, or due to an improvement in methodological procedures. By nature, these revisions have a greater impact on the data, though they are also performed less frequently.

Moreover, there are other data revisions that are not planned, and which are due to the need to correct errors in previously disseminated statistics. In fact, despite the quality control procedures and measures adopted, it is inevitable that errors will occur in the information published: this gives rise to unplanned or extraordinary revisions.

All these reasons and type of revisions have an inevitable effect on users, thus they are translated in changes on data used, breaks in the time series, etc. For this reason and as the CP recomends, there must be series of procedures that constitute as a group a "policy" for the treatment of these revisions; policy that, as other components of statistical quality, must be subject of dissemination, in order that the user has all the information on the reasons that explain and justify revision; and in the end, in order to guarantee their trust in the credibility of statistics.

The general document on the Revision Policy of the INE approved by the Board of Directors at its meeting on March 2015, establishes common criteria and norms for INE statistics, when introducing revisions to the data published, for any of the aforementioned reasons.

It is important to indicate that, in the INE, there are specific revision policies for different statistical operations, in some cases defined in the corresponding European regulations. The details on revision policies existing in specific fields may be viewed at the websites for each of the statistics. A summary of the criteria used is included in the Standardised Methodological Reports sections 19.1 and 19.2. (See section 3.2 and annex 1)

However, there was no homogeneous global framework establishing common norms and principles for the whole of the INE production, and this deficiency has been remedied with this general document on Revision Policy With the adoption of this policy, the INE meets user requirements for transparency and information, as recommended in the European Statistics Code of Practice.

7.3 Letter of Services of the National Statistics Institute

The INE has among its capabilities with several services for user attention, that depend on the type of request (direct attention, web or European data query, customized requests) as well as the user profile (general: individuals, universities, enterprises, press, etc.).

Said services are not just an countinuous attention to citizens, but a direct contact with their changing needs, which allow to improve quality of products and adapt to a society in contant evolution.

The National Statistics Institute establishes, among its public service objectives, meeting the highest standards of quality in the compilation of the official statistics for which it is responsible, fostering the dissemination of the corresponding results as quickly and efficiently as possible; at all times ensuring respect for the principle of statistical secrecy, easy access to services and the ongoing improvement of the conditions under which they are rendered.

This List of Services certified by a specialized body of the Public Administration serves for the INE to inform citizens of the services that it provides, and to publicly declare its commitment to quality pursued in the rendering of said services. The current version of the Letter of Services of the National Statistics Institute has been passed on September 2014 (it is available at http://www.ine.es/en/)

Documentation references[3]

Bercebal, J.M.; Maldonado, J.L.; Martínez-Vidal, M.A.; Salgado, D. (2015): "Data collection and selective data editing in a systemized and integrated way: an experience in progress at Statistics Spain", Workshop on the modernisation of statistical production, Statistics Spain, Ginebra, 15-17 Abril, 2015

Commission of the European Communities (2009-a): "Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics".

Commission of the European Communities (2009-b): "A Vision for the Next Decade". Communication from the Commission to the European Parliament and the Council on the Production method of EU Statistics.

Commission of the European Communities (2011): "Towards robust quality management for European Statistics", Communication from the Commission to the European Parliament and the Council.

Commission of the European Communities (2015): Regulation (EC) 2015/759 of the European Parliament and of the Council of 29 April 2015 amending Regulation (EC) No 223/2009".

Eurostat (2009): "Principles for a common revision policy for European Statistics". Eurostat, 2009.

Eurostat (2011-a): "Final Report from the Sponsorship on Quality". 10th Meeting of the European Statistical System Committee 28 Spt. 2011

Eurostat, (2011-b): "European Statistics Code of Practice for the National and Community Statistical Authorities. 2011". (Adopted by the European Statistical System Committee. 28th September 2011)

Eurostat (2013): "ESS guidelines on revision policy for PEEIs", Eurostat, 2013.

Eurostat (2014-a): "ESS guidelines for the implementation of the ESS quality and performance indicators", Eurostat, 2014.

Eurostat (2014-b): "ESS Handbook for Quality Reports (EHQR)", 2014.

Eurostat (2015): "European Statistical System Quality Assurance Framework (ESS QAF), V 1.2", 2015.

Fellegi, I.P. (1991): "Maintaining public confidence in official statistics". Journal of the Royal Statistical Society, Series A (Statistics in Society), 154, Part 1, 1-6.

Fellegi, I.P. (2004): "Maintaining the credibility of official statistics", Statistical Journal of the United Nations, ECE 21, 191-198.

INE (2004): "Good Practices in the Compilation of Official Statistics", 2004.

[3]All documents of public institutions here mentioned are available in online version on the websites of each institution.

Lorca, D.; Molina, M.C.; Parada, G.; Revilla, A. (2011): “Sampling coordination of business surveys in the Spanish National Statistics Institute”, INE, Working papers, 06/2011

Revilla, P.; Piñán, A. (2011): “Implementing a Quality Assurance Framework based on the Code of Practice at the National Statistical Institute of Spain”, INE, Working papers, 04/2012

Saralegui, J.; González C.; Arbués, I. (2012): "Administrative sources use for reduction of burden and costs in structural surveys to enterprises". INE, Working papers, 06/ 2012.

UNECE (2013): "Generic Statistical Business Process Model, 5.0".

Annexes

Annex 1 ESMS Structure (Euro SDMX Metadata Structure) on reference metadata[4]

Concept	Subconcept	Definition
1. Contact		Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.
2. Metadata update		The date on which the metadata element was inserted or modified in the database.
3. Statistical presentation		
	3.1. Data description	Main characteristics of the data set described in an easily understandable manner, referring to the data and indicators disseminated.
	3.2. Classification system	Arrangement or division of objects into groups based on characteristics which the objects have in common.
	3.3. Sector coverage	Main economic or other sectors covered by the statistics.
	3.4. Statistical concepts and definitions	Statistical characteristics of statistical observations.
	3.5. Statistical unit	Entity for which information is sought and for which statistics are ultimately compiled.
	3.6. Statistical population	The total membership or population or 'universe' of a defined class of people, objects or events.
	3.7. Reference area	The country or geographic area to which the measured statistical phenomenon relates.
	3.8. Time coverage	The length of time for which data are available.
	3.9. Base Period	The period of time used as the base of an index number, or to which a constant series refers.
4. Unit of measure		The unit in which the data values are measured.
5. Reference period		The period of time or point in time to which the measured observation is intended to refer.
6. Institutional mandate		Set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.
	6.1. Legal acts and other agreements	Legal acts or other formal or informal agreements that assign responsibility as well as the authority to an agency for the collection, processing, and dissemination of statistics.
	6.2. Data sharing	Arrangements or procedures for data sharing and coordination between data producing agencies.

[4]Some of the phases in the chart are presented in an aggragated manner. The complete detail of the sub-phases may be seen on http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:168:0050:0055:EN:PDF

Annex 1 (Continuation)

Concept	Subconcept	Definition
7. Confidentiality		A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties.
	7.1. Confidentiality: policy	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.
	7.2. Confidentiality: data treatment	Rules applied for treating the data set to ensure statistical confidentiality and prevent unauthorised disclosure.
8. Release policy		Rules for disseminating statistical data to interested parties.
	8.1. Release calendar	The schedule of statistical release dates.
	8.2. Release calendar access	Access to the release calendar information.
	8.3. User access	The policy for release of the data to users, the scope of dissemination (e.g. to the public, to selected users), how users are informed that the data are being released, and whether the policy determines the dissemination of statistical data to all users.
9. Frequency of dissemination		The time interval at which the statistics are disseminated over a given time period.
10. Dissemination format		Media by which statistical data and metadata are disseminated.
	10.1. News release	Regular or ad-hoc press releases linked to the data.
	10.2. Publications	Regular or ad-hoc publications in which the data are made available to the public.
	10.3. Online database	Information about online databases in which the disseminated data can be accessed.
	10.4. Micro-data access	Information on whether micro-data are also disseminated.
	10.5. Other	References to the most important other data dissemination done.
11. Accessibility to documentation		
	11.1. Documentation on methodology	Descriptive text and references to methodological documents available.
	11.2. Quality documentation	Documentation on procedures applied for quality management and quality assessment.

Annex 1

(Continuation)

Concept	Subconcept	Definition
12. Quality management		Systems and frameworks in place within an organisation to manage the quality of statistical products and processes.
	12.1. Quality assurance	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output.
	12.2. Quality assessment	Overall assessment of data quality, based on standard quality criteria.
13. Relevance		The degree to which statistical information meet current and potential needs of the users.
	13.1. User needs	Description of users and their respective needs with respect to the statistical data.
	13.2. User satisfaction	Measures to determine user satisfaction.
	13.3. Completeness	The extent to which all statistics that are needed are available.
14. Accuracy and reliability		Accuracy: closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability: closeness of the initial estimated value to the subsequent estimated value.
	14.1. Overall accuracy	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components.
	14.2. Sampling error	That part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a subset of the population is enumerated.
	14.3. Non-sampling error	Error in survey estimates which cannot be attributed to sampling fluctuations.
15. Actuality and timeliness		
	15.1. Timeliness	Length of time between data availability and the event or phenomenon they describe.
	15.2. Punctuality	Time lag between the actual delivery of the data and the target date when it should have been delivered.
16. Comparability		Measurement of the impact of differences in applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas or over time.
	16.1. Geographical comparability	The extent to which statistics are comparable between geographical areas.
	16.2. Comparability over time	The extent to which statistics are comparable or reconcilable over time.

Annex 1

(Conclusion)

Concept	Subconcept	Definition
17. Coherence		Adequacy of statistics to be reliably combined in different ways and for various uses.
	17.1. Coherence: cross domain	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains.
	17.2. Internal coherence	The extent to which statistics are consistent within a given data set.
18. Cost and burden		Cost associated with the collection and production of a statistical product and burden on respondents.
19. Data revision		Any change in a value of a statistic released to the public.
	19.1. Data revision: policy	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised.
	19.2. Data revision: practice	Information on the data revision practice.
20. Statistical processing		
	20.1. Source data	Characteristics and components of the raw statistical data used for compiling statistical aggregates.
	20.2. Frequency of data collection	Frequency with which the source data are collected.
	20.3. Data collection	Systematic process of gathering data for official statistics.
	20.4. Data validation	Process of monitoring the results of data compilation and ensuring the quality of the statistical results.
	20.5. Data compilation	Operations performed on data to derive new information according to a given set of rules.
	20.6. Adjustment	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets.
21. Comment		Supplementary descriptive text which can be attached to data or metadata.

Annex 2 Production process model: adaptation proposal of the GSBPM to the INE

This standard has been passed by the Board of Management of the INE on 7 April 2015 and adapts the GSBPM (Generic Statistical Business Process Model) international reference standard adopted by the United Nations on April 2009 and which 5.0 current version was revised on December 2013.

The standard is set under a task structure within each subprocess that constitute a breakdown on the third level of the GSBPM. The first two digits correspond to the second level of the GSBPM, and the third digit is own proposal of the INE; it is worth noting that numbers of that third digit do not imply necessarily an order or hierarchy of tasks.

In all subprocess the code X.X.99 "Other tasks performed..." have been included in order to assure that all activities may be collected.

On the other hand, it is worth remembering that the project (see section) looks for not only a definition of an own production model of the INE, but also the compliance of metadata reports based on said model, for all statistical operations of the INE.

Given that the definition and implementation of the model project is currently ongoing, this classification must be considered as provisional, valid on the date in which this version of the Board of Management was passed (7 April 2015). As this process is completed, definitive versions of the same will be added to this annex.

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

1. Specifying needs
1.1. Identifying needs
1.1.1. Identifying external needs for information
1.1.2. Identifying internal needs for information
1.1.3. Comparing similar statistical operations
1.1.4. Identifying restrictions
1.1.99. Other tasks
1.2. Consulting and confirming needs
1.2.1. Contacting users
1.2.99. Other tasks
1.3. Establishing objectives of the results
1.3.1. Identifying population aggregates
1.3.2. Identifying dissemination dominions
1.3.3. Identifying dissemination metadata
1.3.4. Identifying dissemination time scope
1.3.5. Identifying control requirements of statistical secrecy
1.3.6. Identifying requirements for seasonal adjustment/calendar effect
1.3.99. Other tasks
1.4. Identifying concepts
1.4.1. Identifying statistical population/units
1.4.2. Identifying variables
1.4.3. Identifying directories
1.4.4. Identifying administrative registers
1.4.99. Other tasks
1.5. Checking data availability
1.5.1. Analysing directories
1.5.2. Analysing administrative registers
1.5.3. Checking availability of other sources
1.5.4. Analysing other statistical operations
1.5.99. Other tasks
1.6. Compiling documents for the compilation and justification of the need and feasibility of a new project
1.6.1. Compiling feasibility report
1.6.2. Compiling statistical project
1.6.3. Compiling planning and budget
1.6.4. Communicating new projects to users
1.6.99. Other tasks
2. Designing
2.1. Designing results
2.1.1. Designing estimate tabulations
2.1.2. Designing metadata for dissemination
2.1.3. Designing dissemination time scope
2.1.4. Designing dissemination formats
2.1.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM
(Continuation)

2.2. Designing variable descriptions
2.2.1. Making statistical units operational
2.2.2. Making variables operational
2.2.3. Making population aggregates operational
2.2.4. Defining derived variable
2.2.5. Designing statistical treatment of administrative registers
2.2.6. Designing statistical treatment of other sources
2.2.99. Other tasks
2.3. Designing collection/ attainment
2.3.1. Designing annual planning of collection/attainment
2.3.2. Selecting collection/attainment method
2.3.3. Designing questionnaire
2.3.4. Designing administrative register scheme
2.3.5. Designing scheme for other collection/attainment method
2.3.6. Designing collection/attainment tool
2.3.7. Designing material that supports collection/attainment
2.3.8. Designing paradata
2.3.9. Designing management application for collection/attainment
2.3.10. Designing linguistic aspects of the collection/attainment
2.3.11. Designing H.R allocation for collection/attainment
2.3.12. Designing H.R selection/training plan
2.3.13. Determining collection/attainment infrastructure
2.3.14. Designing hiring of collection/attainment
2.3.15. Designing collaboration agreement
2.3.16. Designing promotion action for collection/attainment
2.3.99. Other tasks
2.4. Designing framework and sample
2.4.1. Designing /updating population framework
2.4.2. Identifying/updating type of sampling
2.4.3. Determining size and allocation of the sample
2.4.4. Determining/updating update, selection and coordination of the sample
2.4.5. Designing/updating extraction of the sample
2.4.99. Other tasks
2.5. Designing processing and analysis
2.5.1. Designing coding
2.5.2. Designing error detection
2.5.3. Designing error processing
2.5.4. Designing validation of filtered sample
2.5.5. Designing implementation of files from the same source
2.5.6. Designing implementation of diverse sources
2.5.7. Designing weighting calculation
2.5.8. Designing estimators of population aggregates
2.5.9. Designing correction of estimators of population aggregates
2.5.10. Designing statistical treatment of administrative registers
2.5.11. Designing statistical treatment of other sources
2.5.12. Designing variance estimators
2.5.13. Designing time series updates
2.5.14. Designing seasonal adjustments/calendar effects
2.5.15. Designing control of statistical secrecy
2.5.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

(Continuation)

2.6. Designing production systems and work flows
2.6.1. Designing work flows
2.6.2. Compiling work calendar
2.6.3. Designing coordination of the process
2.6.4. Designing databases and metadata
2.6.5. Designing microdata backups
2.6.6. Designing other information system components
2.6.99. Other tasks
3. Developing
3.1. Developing collection/attainment tool
3.1.1. Compiling questionnaire
3.1.2. Developing collection tool
3.1.3. Developing tool for the receipt of administrative registers
3.1.4. Developing tool for attainment from other sources
3.1.5. Compiling material that supports collection/attainment
3.1.6. Developing/configuring collection/attainment infrastructure
3.1.7. Programming collection/attainment metadata
3.1.8. Developing management applications for collection/attainment
3.1.9. Including linguistic aspects of the collection/attainment
3.1.10. Compiling material for H.R training plan
3.1.11. Compiling hiring of collection/attainment
3.1.12. Compiling collaboration agreement
3.1.13. Developing tools for promotion actions for collection/attainment
3.1.99. Other tasks
3.2. Developing and improving processing components
3.2.1. Developing IS components for the construction of the population framework
3.2.2. Developing IS components for the sampling design
3.2.3. Programming sample extraction
3.2.4. Developing IS components for coding
3.2.5. Developing IS components for error detection
3.2.6. Developing IS components for error treatment
3.2.7. Developing IS components for the validation of filtered sample
3.2.8. Developing IS components for the implementation of files from the same source
3.2.9. Developing IS components for the implementation of diverse sources
3.2.10. Developing IS components for weighting calculation
3.2.11. Programming estimators of population aggregates
3.2.12. Programming corrections of estimators of population aggregates
3.2.13. Programming variance estimator
3.2.14. Developing IS components for the tabulations of estimates
3.2.15. Developing IS components for the calculation of derived variables
3.2.16. Developing IS components for updating time series
3.2.17. Developing IS components for seasonal adjustments/calendar effect
3.2.18. Developing IS components for the control of statistical secrecy
3.2.19. Developing IS components for process databases and metadata
3.2.20. Developing IS components for metadata backups
3.2.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

(Continuation)

3.3. Developing or improving dissemination components
3.3.1. Developing system for the presentation of results
3.3.2. Developing IS components for dissemination databases and metadata
3.3.3. Developing other dissemination tools
3.3.99. Other tasks
3.4. Configuring work flows
3.4.1. Configuring collection/attainment work flows
3.4.2. Configuring processing work flows
3.4.3. Configuring dissemination work flows
3.4.99. Other tasks
3.5. Testing production system
3.5.1. Testing tools for sample selection and construction of the population framework
3.5.2. Testing tools for collection/attainment
3.5.3. Testing tools for processing
3.5.4. Testing tools for dissemination
3.5.99. Other tasks
3.6. Testing statistical business processes
3.6.1. Carrying out pilot test
3.6.2. Testing IS components together
3.6.99. Other tasks
3.7. Finalising production system
3.7.1. Executing H.R. training
3.7.2. Executing maintenance
3.7.99. Other tasks
4. Collection/ Attainment
4.1. Creating a framework and selecting sample
4.1.1. Executing construction of population framework
4.1.2. Executing sample extraction
4.1.99. Other tasks
4.2. Initializing collection/ attainment
4.2.1. Distributing collection/attainment material
4.2.2. Distributing/installing collection/attainment infrastructure
4.2.3. Initialising collection/attainment management applications
4.2.4. Assigning H.R for collection/attainment
4.2.5. Executing H.R training plan for collection/attainment
4.2.6. Executing promotional action for collection/attainment
4.2.7. Guaranteeing hiring conditions for collection/attainment
4.2.8. Requesting administrative information
4.2.99. Other tasks
4.3. Executing collection/ attainment
4.3.1. Initialising collection
4.3.2. Answering questions on collection/attainment
4.3.3. Executing recording
4.3.4. Executing collection/attainment claims
4.3.5. Executing collection/attainment monitoring
4.3.6. Executing collection/attainment inspection
4.3.7. Executing attainment of administrative registers
4.3.8. Executing attainment from other sources
4.3.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

(Continuation)

4.4. Finalising collection/attainment
4.4.1. Compiling collection report
4.4.2. Compiling report on the attainment of administrative registers
4.4.3. Compiling report on the attainment from other sources
4.4.4. Sending data and metadata on the collection/attainment
4.4.5. Executing a file on collection/attainment documents
4.4.99. Other tasks
5. Processing
5.1. Integrating data
5.1.1. Executing the integration of data coming from the same collection/attainment method
5.1.2. Executing the integration of data coming from different collection/attainment methods
5.1.99. Other tasks
5.2. Classifying and coding
5.2.1. Executing coding
5.2.2. Executing coding quality control
5.2.99. Other tasks
5.3-5.4. Revising and validating. Filtering and imputing
5.3.1. Executing error detection and treatment (input)
5.3.2. Executing error detection and treatment (output)
5.3.3. Compiling filtering a imputation report
5.3.99. Other tasks
5.5. Deriving new variables and units
5.5.1. Calculating new statistical units
5.5.2. Calculating derived variables
5.5.99. Other tasks
5.6. Calculating weights
5.6.1. Calculating index/aggregate weightings
5.6.99. Other tasks
5.7. Calculating aggregates
5.7.1. Calculating (corrected) estimators of population aggregates
5.7.2. Calculating estimators of the variation variances and coefficients
5.7.3. Executing quality control over estimator calculations
5.7.99. Other tasks
5.8. Finalising data files
5.8.1. Updating microdata and aggregate databases
5.8.2. Executing microdata backups
5.8.99. Other tasks
6. Analysing
6.1. Preparing a draft of the results
6.1.1. Executing update of time series
6.1.2. Executing seasonal adjustments/calendar effect
6.1.3. Compiling tabulations of estimates
6.1.4. Compiling microdata file for users
6.1.5. Compiling metadata reports for dissemination
6.1.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

(Continuation)

6.2-6.3. Validating results. Interpreting and explaining results
6.2.1. Executing error detection and treatment (macro)
6.2.2. Executing validation of filtered sample
6.2.3. Interpreting results
6.2.99. Other tasks
6.4. Applying control of statistical secrecy
6.4.1. Eliminating direct identification variable
6.4.2. Assessing identification risk
6.4.3. Applying information protection
6.4.4. Configuring secure access centres
6.4.99. Other tasks
6.5. Finalising results
6.5.1. Compiling internal reports
6.5.99. Other tasks
7. Disseminating
7.1. Updating result systems
7.1.1. Executing validation of dissemination products
7.1.2. Updating dissemination databases
7.1.3. Guaranteeing data-metadata link
7.1.99. Other tasks
7.2. Producing dissemination products
7.2.1. Giving dissemination format
7.2.2. Executing information collection
7.2.3. Compiling element of dissemination product
7.2.4. Validating element of dissemination product
7.2.5. Forming dissemination product
7.2.6. Approving dissemination product
7.2.7. Compiling press release
7.2.99. Other tasks
7.3. Managing information on dissemination products
7.3.1. Managing dissemination calendar
7.3.2. Transmitting dissemination products
7.3.3. Publishing dissemination products
7.3.4. Managing errors in dissemination products
7.3.5. Distributing customised dissemination product
7.3.6. Publishing metadata for dissemination
7.3.99. Other tasks
7.4. Promoting dissemination products
7.4.1. Managing activity on social networks
7.4.2. Managing informative material
7.4.3. Executing promotional action on dissemination
7.4.4. Maintaining dissemination channels
7.4.5. Managing editorial programme
7.4.99. Other tasks
7.5. Managing user support
7.5.1. Managing customised dissemination product
7.5.99. Other tasks

Chart A2.
List of three-digit tasks, within the phases and subphases of the GSBPM

(End)

8. Assessing
8.1. Gathering inputs for assessment
8.1.1. Gathering reports
8.1.2. Gathering metadata for quality
8.1.3. Gathering H.R. suggestions.
8.1.99. Other tasks
8.2. Executing assessment
8.2.1. Identifying process errors
8.2.2. Comparing quality indicators
8.2.99. Other tasks
8.3. Agreeing on an action plan
8.3.1. Compiling action plan for improvement
8.3.2. Compiling documents of action plan for improvement
8.3.3. Executing monitoring of the action plan for improvement
8.3.99. Other tasks

Annex 3 Revision policy

1 Introduction: definition of revision and objectives of the revision policy

The main objective of the revision of statistical data focuses on the improvement of the quality of the information provided. There are different reasons for carrying out revisions of statistics. In general, revisions are due to having new data regarding the past that could not be included at the time that the previous version was compiled and disseminated. This new data may come from the inclusion of new information (for example, due to lags in the responses to a survey), or due to the correction of the information initially transmitted by the statistical source.

Nonetheless, revisions may be due to other factors, such as: the detection of chance errors associated with the incorrect use of information sources or data processing; the need to introduce methodological improvements and update the norms regulating statistics; or revisions linked to procedures such as the correction of seasonal effects in short-term series.

All of this frequently implies significant changes, which have an impact on the data published previously, and which, therefore, give rise to revisions.

However, it is necessary for the revisions to be backed up by a set of guidelines and principles, which favour the transparency of the processes and ensure trust and effective communication with the users. This is what is known as a "Revision policy".

The revision policy must establish general rules for the information to provide the user regarding the possible causes of the revision, regarding the typology of the revisions and regarding the documentation supporting the revisions.

2 Reference frameworks

In the preparation of the INE revision policy, the following conceptual frameworks have been considered:

- *European Statistics Code of Practice*, 2011.
- *ESS guidelines on revision policy for PEEIs*. Eurostat, 2013.
- *Principles for a common revision policy for European Statistics*. Eurostat, 2009.

3 General principles of the revision policy

Notwithstanding the differences existing between different statistics and revision typologies, it is possible to establish general criteria that the revision policy must fulfil: in particular, the corresponding standards defined in the European Statistics Code of Practice:

Principle 6 "Impartiality and objectivity" (Indicator 6.6: Revisions or significant changes in the methodology are announced ahead of time).

Principle 8 "Suitable statistical procedures" (Indicator 8.6: Revisions follow normalised, consolidated and transparent procedures).

Principle 12 " Precision and reliability" (Indicator 12.3: Revisions are analysed periodically, in order to improve statistical processes).

Principle 15. Accessibility and Clarity: The revision policy must be made public for all users.

To this end:

– The INE must guarantee that the general criteria regulating the revisions are available to users in an accessible way.

– The revised results must be disseminated to the public, and accompanied by explanatory notes.

– If the revision is significant, information must be included regarding the underlying factors, such as the correction of the initial data or the introduction of new data.

– The "errors" leading to revisions, regardless of their nature, must be documented and notified to the users as soon as possible.

– In those cases in which the need for a revision might be anticipated, that is, a revision as a result of methodological changes, it must be announced to the users with advance notice.

– The revision measures must be in accordance with the dissemination policy, in terms of the principles regulating the publication of the revised results and the application of internal action protocols when dealing with errors arising in the INE publications online.

– Studies and analyses of the revisions must be performed regularly, for the purpose of improving the statistical compilation processes. For example, the analysis of the current routine revisions might enable the adoption of measures to reduce the magnitude of said revisions (eliminate the bias, eliminate any significant time correlation between revisions, reduce their volatility, etc.).

– A transversal analysis of the revisions shall be carried out periodically by the INE Quality Unit, for the purpose of assessing compliance with the revision policy.

The revision policy is defined, based on the decisions regarding the following aspects:

- Applicable principles in the case of "routine" revisions.
- Applicable principles in the case of large revisions.
- Applicable principles in the case of extraordinary revisions.
- Differentiation by statistical operation.

4 Applicable principles in the case of "routine" revisions

Ordinary or routine revisions are those that, due to their nature, are inherent to the production process of the statistics. They are mainly due to the inclusion of new data.

These revisions may occur both for annual statistics, and especial for infra-annual statistics, which are more frequently subjected to revisions, due to the time gap between the period to which the data refers and their dissemination.

The basic principles that are applicable to these revisions are the following:

- In general, routine revisions must be carried out until the time at which the information considered necessary for obtaining a rigorous and stable value of the statistical variable is available.

- Periodical routine revisions must be performed and disseminated in accordance with welldefined, synchronised and updated calendars. One way of preparing these calendars is to incorporate them into the general publication calendar of the statistics.

- Users are notified in advance regarding when the data will be made available.

- In the specific case of those revisions linked to the correction of seasonal and calendar effects in short-term series, notwithstanding the general criteria, the specifications listed in the "INE standard for the correction of seasonal and calendar effects in short-term series" shall be followed, as indicated in section 3 of said document.

See: http://www.ine.es/en/clasifi/estandar_efectos_estacionales_en.pdf

5 Applicable variables in the case of large revisions or structural revisions

Large revisions of published data are due to several reasons: the availability of a structural data source that is obtained over long periods of time (such as the population censuses); changes in the concepts, definitions and classifications used in the production of series (for example, adopting new classifications or methodological changes derived from community regulations); the improvement of methodological procedures (for example, changes in the level of detail and stratification of the data from a sample survey).

The basic principles that are applicable to these revisions are the following:

– Large revisions must only be carried out during long periods of time (normally between five and ten years).

– Large revisions must be announced widely and with advance notice. They must be included a revision calendar, or as pertinent, in the publication calendar that includes the details of the revisions.

– The reasons for these revisions must be clearly explained to the public, if possible, together with their potential impact on the most important data.

– Following the revision, an analysis showing the impact of the changes made must be published.

– As much as possible, the large revisions of the different statistical fields must be performed in a coordinated manner.

– In as short a time as possible, the revisions must be accompanied by transformations in the previous data series (or by auxiliary tools for their transformations), allowing reconstructing the time history of the phenomenon under study, and avoiding breaks in the data series of the fundamental variables.

– The time period for which the revision will be calculated will depend on the balance between the cost of obtaining it and the benefit of its availability for the respondents.

6 Applicable principles in the case of extraordinary revisions.

Extraordinary revisions are those that are not foreseen, and that arise due to unexpected events, or to a great extent, due to events that are exogenous to the production process, but that significantly affect the statistics.

The basic principles that are applicable to these revisions are the following:

– Extraordinary revisions must be restricted to the case of unforeseeable errors and accidents occurring in the production process, and that imply significant changes in the data already published.

– Extraordinary revisions must be carried out as quickly as possible, once the underlying factors have been identified and their impact on the data has been assessed.

– The correction must be accompanied by an appropriate explanation of the nature and implications of the error.

7 Differentiation by statistical operation

Each statistical operation has its own specificities, both in the design and in the information collection, and in many cases, they are subject to European regulations and other specific legal norms. Therefore, there may be singular criteria in the revision policy of the different statistics.

Nevertheless, and regardless of the concrete criteria regulating each of the statistics, it is possible to establish some principles that, generally or transversally, are applicable to all of them:

i) The revision policy of each of the statistics shall follow transparent procedures.

ii) The revision criteria for each of the statistics shall be made known, and made public, to all users:

– These criteria must include: the identification of the different types of revision adopted; the indication of the circumstances under which the revisions are carried out; the scope of the revisions (number of periods revised); and the frequency thereof.

– The data revision criteria shall be included in the methodological documents for each statistical operation (methodologies, metadata associated with each indicator, etc.). In particular, this description must be included in the corresponding standardised methodological report accompanying INE publications (in the section dedicated to describing the "Revision policy").

iii) All statistics shall provide, at least for the fundamental variables, indicators of the magnitude of the revisions, and specifically, those considered in the Eurostat catalogue of "quality indicators": the average size of the revisions as an absolute value; the average size of the revisions in relative terms. The definition of these indicators corresponds to the criteria defined by Eurostat in the document entitled "ESS Quality and Performance Indicators 2014":

http://ec.europa.eu/eurostat/documents/64157/4373903/02-ESS-Quality-and-performanceIndicators-2014.pdf/5c996003-b770-4a7c-9c2f-bf733e6b1f31

iv) Previously defined indicators must be included in the corresponding standardised methodological report accompanying INE publications (in the section dedicated to describing the "Revision policies").

v) The analysis of the revisions taking place in each statistical field must be a basic tool for improving statistical processes, detecting and avoiding obtaining systematic biases in the revisions.

vi) In the revision policy, the maximum consistency possible shall be sought amongst the statistical operations. When the revision of one of the statistics determines the results of another, said fact must be borne in mind, and the coordination between the revisions of both statistics must be guaranteed.