**Improving the Quality of National Statistical Systems**

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**Abstract**

*The success of a modernization program in an NSI depends on the validity of the project as well as the quality of its implementation. Usually the project is carried out within the same organization which design it.*

*Problems arise when the scope is the modernization of a National Statistical System. Aside from the coordination role of the NSI, each organization performing a statistical task (Ministries, Regions, Municipalities) has its own logic, mechanisms and hierarchy.*

*The Italian Statistical System (SISTAN) is both broad and incisive. Organizations/bodies belonging to SISTAN may use different tools, compared to the ones implemented by Istat, to maintain an acceptable level of quality. The overriding characteristic of these tools is that they are “soft tools”, not coercive, but inclusive and functional on a cultural level. In essence, results are achieved in cooperation, in a sort of a “grey area” without being based on a specific mandate of a single organization.*

*ISTAT has taken a number of initiatives towards improving the SISTAN Statistical Offices performance. From 2013-2015 ISTAT underwent the Eurostat peer review. This was the backdrop to the modernization program launched in 2016-2017. This program has three main initiatives:*

*1. The improvement in statistical production by issuing Quality Guidelines tailored for SISTAN producers, and subsequent statistical audits of the most relevant processes;*

*2. The update of the list of the Other National Authorities (ONAs) based on common criteria, which should be coherently applied by Member States;*

*3. An intensive high-level training (75 hours in 15 days) for Central Statistical Offices staff based on the Italian Code of Practice for Statistical Quality.*

*The paper presents these three initiatives and the lessons learned from the results obtained. It will conclude with a preview of upcoming programs.*

**Keywords:** National Statistical System, Other National Authorities, Quality of national statistical production, Responsibility.

**1. Overview**

The National StatisticsSystem in Italy (SISTAN) was created in 1989, nearly thirty years ago. Perhaps it might be one of the largest in the world and comprises Statistical Offices (SO) in all central and local Public Administrations and a few private entities as well. The Italian National Statistical Institute (NSI) - ISTAT - plays its coordination role on both central and local levels.

This paper is intended to draw the attention on the initiatives for increasing the quality of the central administration (ministries and other agencies), some of which are identified as Other National Authorities (ONAs). Improving the quality of SISTAN goes hand in hand with progresses of the ESS.

**2. The initiatives in three recent periods**

*2012-2015*

ISTAT was given the task of monitoring regularly the application of the 15 principles of the Italian official Code of Statistics. The Italian code mirrors very closely the European Code of Practice principles, but differently from the European code, does not contain indicators . From 2012 to 2015 a specific task force was set up consisting of about 200 experts from Istat and other SISTAN organizations; this task force “visited” about 147 Statistical Offices (SO) - tied to ministries, national entities, regions, provinces, local governments and Chambers of Commerce throughout the country. The scope of the peer review was to target strengths and weaknesses of these statistical offices in respect to their compliance with the principles of the Italian Code.

The peer reviews were conceived as assessment operations to find proposals for enhancing the quality of the statistics produced and as a way to forge collaboration among the members of SISTAN. In concrete terms, at the end of each visit, consisting in a semi-structured interview with the responsible of the statistical office, a report was issued and shared among the reviewers and the statistical office involved. It provided recommendations for the office in order to reinforce and increase the quality of their statistical activities.

So far, this assessment has proved to be of a great interest among the offices evaluated which considered the initiative as a chance to better explain to the team of experts their role within the administration, to disseminate the best practices within the various sectors in the system and share potential difficulties when carrying out statistical activities.

*2016-2017*

The activities in 2012-2015 were particularly focused to reinforce the role and authoritativeness of the SISTAN statistical offices at institutional level. After the office-wide overview, specific statistical process examinations should be carried out.

In 2017 we changed our approach, by focusing our attention on Central Statistics Offices and proposing three initiatives:

* Assess the compliance of the National Statistical Authorities (ONAs) with the European Code of Practice and the transmission of data to Eurostat on a regular basis by means of a survey[[1]](#footnote-1).
* Release of Quality Guidelines which were fine-tuned through consultations with the SO. Following this release, we initiated the auditing of single statistical processes[[2]](#footnote-2)
* Perform a high-level training course on statistical quality for statistical officers in the Central Public Administration[[3]](#footnote-3).

By the end of 2017 we achieved the following relevant results:

* The update of the list of ONAs and the collection of information about the data flows to Eurostat. The ONAs list is now composed by 15 entities and the number of data sets sent to Eurostat is about 150, considering 95 European Regulations requesting statistics.
* The release of the Quality Guidelines and the implementation of pilot audits.
* The Improvement of the statistical training program using our previous experience and the preparation of the second and third editions for 2018.

*2018*

Our roadmap for 2018 includes:

* Assessing the compliance of ONAs with the European Code;
* Auditing statistical processes carried out by the Ministries identified as ONAs.
* Conducting two additional training course sessions.

Until now, Istat has provided one training course on the Code of Practice and the Guidelines, attended by 35 people. Our previous experience helped us enhance it by better meeting trainees requirements, increasing the time devoted to case studies and exercises, and improving the trainers selection.

Audit and compliance assessment activities belong to a single initiative. Starting from an overall mapping of data flows towards Eurostat (the results of the *ad hoc module*), three public administrations (two ministries and one agency) have been selected as responsible for the transmission of datasets to Eurostat according to EU regulations. These administrations were requested to provide information on their statistical activities prior to the audit. Later on, they received a questionnaire, that was filled out during a face-to-face interview with the Istat team of experts. The questionnaire is based on the Code of Practice and the Guidelines. After the audit, a report is drafted for each administration involved, with improvement actions to be implemented in a 18 months frame.

Even though these reports have not been completed yet, it might be reasonable to assert that scenarios are highly different: as to one administration, for example, the audit has revealed high standards of skills, reliability, timeliness and active participation to the devoted EU meetings. As to another administration, nevertheless the sounded competencies and skills, there are still unsolved issues regarding bureaucratic aspects on relations between the administration providing data and the one responsible for their transmission to Eurostat. This unclearness may result in weakening the focus and creating difficulties.

**3. The main results**

*Tab. 1 – A summary of the work done and “in fieri”*

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| --- | --- | --- | --- | --- |
| WHAT / WHEN | 2012-2015 | 2016-2017 | 2018 | 2019-2020 |
| EVALUATIONS AND AUDITS | Peer review | Test audit processes | Audit processes | Permanent quality check program |
| ONA’S COMPLIANCE | First list | Questionnaire to collect information about the EU processes | New list (by the end of 2017) | Assess processes and update the list if needed |
| TRAINING COURSES | Significant activity with territorial SOs. No initiatives with Central Administrations | Design and perform a high level training course | Second and third edition, enlarged and improved | Fine-tuning and customized initiatives |
| QUALITY GUIDELINES | Design Quality Guidelines | Prepare and share the “Quality Guidelines” for Official Statistics | Use the Guidelines during audits | Update the Guidelines taking into account “smart information” and other statistical challenges |

This table shows that starting from various non-coordinated initiatives, all of them have paved the way to a common strategy in 2018 .

The Quality Guidelines is the basis for training courses, for auditing and for compliance assessment of the ONAs performance.

Audit results can also be used for improving training courses and updating the new version of the Guidelines.

The training course is also a way to gain knowledge from statistical offices useful for enhancing audits and compliance analysis.

Finally, Istat staff involved in this project come from different professional backgrounds (methodological, thematic, quality, organizational) and different Istat sectors, and work in a coordinated fashion and towards a common goal.

**4. The context**

Although we are satisfied with the work and the results accomplished so far, the question is whether our goal can be achieved.

ISTAT’s activities are aimed at improving the capacity-building of both the ONAs and SISTAN in terms of compliance and the technical proficiency governing statistical processes. Moreover, Istat can achieve further improvements through recommendations, suggestions and assistance.

From the information gathered during the peer review (2012-2015) the areas where it was necessary to focus on for enhancing the quality of the statistics regarded the accessibility and the ability to use the information given; the quality of dissemination; the recognition of the role of the office within its own administration; the documentation of the process; the connection to consumers; the need for adequate resources; the reinforcement of the status of the offices and the collaboration with other sectors inside the entity. But often the context in which statistical offices operate is difficult.

*The Context*

Statistics are not the core of the mission of organizations with statistical offices. Due to many factors – budgets constraints, professional staff shortages, management and politics – the SO are not stable structures. For example, because of budget or staff constraints, the position of SO responsible could be vacant or the SO could be run by an acting officer, who might not be a statistician. Further, depending on each sector’s organization, the staff could vary from two to twenty people. The statistics are always gathered by the SO, but often produced by other offices within the organizations. All these factors contribute to weaken the overall statistical output.

In many cases, the statistical office is not in charge of statistics collection, that derives from administrative activities of other units. The role of the statistical office is to control, oversee, check, audit and verify the data, results and so on. It’s not easy to carry out this activity in a complex and diversified organization like a ministry. It’s easier for a third party, the NSI who is already responsible for coordination. But how many procedures can the NSI check every year? And what about the following years?

Ministers and top managers may not always take into consideration the importance of statistics. Moreover, new top management appointments are frequent and newly designated officials may not be as aware of the duties of statistical offices and the relevance of statistics as the previous ones.

To summarize, we are often facing a lack of responsibility by the Ministers and top managers in the central administrations on the statistical theme, despite the European Regulation[[4]](#footnote-4).

**5. Some conclusions**

On both European and national levels we continue to reinforce traditional concepts (the Principles) and recently we point out our attention to a “soft skill” area, stressing concept like Education, Trust, Reputation, Confidence, and the European Code of Practice is being modified with the addition of the “Coordination and Cooperation” Principle. It is my belief that all of these concepts are essential to the coordination role of the NSIs.

Moreover, given the context described, we can consider other concepts as well.

* The *Value*: sending data to Eurostat may be viewed by many administrations as merely a “duty” (to comply with the rule without getting anything in return). The relevance of these data and their correct use is undervalued. One suggestion might be to prepare customized feedback (a return of information with data analysis and comments useful for the Administration)[[5]](#footnote-5).
* *Responsibility* is a clear concept for the NSI but not for ONAs. We need to actively clarify that Ministries and other Agencies have to be responsible for the organization and qualification for the data they are requested to provide. The Statistical Office is the “technical support” for the Administration which should take the responsibility of statistical processes as a whole, in the same way it does when dealing with “privacy”, “health and safety protection”, “anti-corruption”, “transparency” etc.

1. The survey involved 18 subjects, namely 15 ONAs in the Eurostat list and 3 entities taken into consideration because of their activities.

   For the survey an on-line questionnaire was created on the Limesurvey platform (an ad hoc module); each questionnaire was related to one single EU statistical regulation. The survey results were::

   Which European statistics are produced by the ONA already included in the list and the potential ones; which statistics are sent directly or indirectly to Eurostat and how (Edamis platform, excel file, PDF);

   What data are provided to Istat or to other administration that use it for producing European statistics;

   What data are transmitted to other General Directorates of the Commission or to EU agencies (not to Eurostat);

   The cost for the production of European statistics;

   The frequency of the production and transmission of the data. [↑](#footnote-ref-1)
2. The main objective of these guidelines is to give a support structure for the evalutation of the quality of the statistics produced by the Sistan organizations. The Guidelines provide principles to comply with for the production of statistics according to the most established methodological standards and in a way to assure that the information is of high quality. They also provide practical suggestions to guarantee compliance with the principles stated. The Guidelines, along with an evaluation questionnaire, are being used by a team of Istat experts to audit the various organizations and can also be a usefull support for designing and implementing statistical procedures. [↑](#footnote-ref-2)
3. The training course is organized trough three modules, according to the Italian Code of Practice, Institutional Framework, Statistical Processes, Statistical Products and Communication. The Course lasts for 15 training days of 5 hours each, with a final test at the end of each module.

   The two courses carried out in autumn 2017 and spring 2018 had a large and positive evaluation and we are going to prepare the autumn 2018 edition, improving its quality. [↑](#footnote-ref-3)
4. *ER – 2015-759 – “Statistical law” - Article 5- 5a*

   *National statistical institutes and other national authorities*

   *1. The national statistical authority designated by each Member State as the body having the* ***responsibility*** *for coordinating all activities at national level for the development, production and dissemination of European statistics (the NSI) shall act as the contact point for the Commission (Eurostat) on statistical matters. The Member States shall take the necessary measures to ensure the application of this provision.*

   *Heads of NSIs and statistical heads of other national authorities*

   *1. Within their national statistical system, Member States shall ensure the professional independence of officials responsible for the tasks set out in this Regulation.*

   *2. To that end, the heads of NSIs shall: (…)*

   *(f) coordinate the statistical activities of* ***all national authorities that are responsible*** *for the development, production and dissemination of European statistics…;*

   *3. Each Member State shall ensure that* ***other national authorities responsible*** *for the development, production and dissemination of European statistics carry out such tasks in accordance with the national guidelines produced by the head of the NSI.* [↑](#footnote-ref-4)
5. A relevant documentation on that point is in “UNECE”, *Value for official statistics: Recommendations, measuring and communicating the value of official statistics, Geneva, 19-21 June 2017* [↑](#footnote-ref-5)