**Implementing Quality Management within the ICBS and the Israeli NSS: Progress and Challenges**

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**Abstract**

*Over the last decade a number of national and international challenges and requirements have combined to lead ICBS to focus on quality assurance, quality management, and coordination of the national statistical system as a strategic objective both for the ICBS specifically, and for the Israeli national statistical system (INSS) in general.* *A variety of initiatives and programs have begun, many within the context of two EU Twinning projects. These initiatives will require profound changes in existing habits and organizational structures. Although much progress has been made, organizational change is slow, and the greatest challenges lie ahead. This paper will review the background for these initiatives and the progress made in the ICBS and in the INSS as a whole, while pointing out the challenges which have determined the pace of progress so far.*

**Keywords: ICBS, Quality Management, Statistical Coordination, EU Twinning**

**1. Background**

Quality of official statistics has always been on the agenda of the Israel Central Bureau of Statistics (ICBS), but over most of its history quality was approached in a traditional way, by promoting practices designed to maintain up-to-date statistical methods, accuracy, professional independence and impartiality. However, over the last decade a number of national and international challenges and requirements have combined to lead ICBS to focus on quality assurance, quality management, and coordination of the national statistical system as a strategic objective both for the ICBS specifically, and for the Israeli national statistical system (INSS) in general. As in the international official statistics community, it became evident in the ICBS that quality management embraces complex ties between organisational structure, processes and products. A variety of initiatives and programs have begun, many within the context of two EU Twinning projects. These initiatives will require profound changes in existing routines and organizational structures. Although much progress has been made, organizational change is slow, and the greatest challenges lie ahead. This paper will review the background for these initiatives and the progress made in the ICBS and in the INSS as a whole, while pointing out the challenges which have determined the pace of progress so far.

**1. Background for National Statistical Coordination**

*1.1 Institutional and Juridical basis*

The law governing the activities of the ICBS is the Statistics Ordinance (New Version), 5732 - 1972 (State of Israel, 2016). It sets out the functions and powers of the ICBS in collecting, producing, analyzing and publishing statistical information, specifies the responsibilities of the National Statistician and the ICBS, and the roles of the Public Council for Statistics (PCS) in the national statistical system generally. These responsibilities refer to several aspects of coordinating a national Statistical System by these agencies:

A. Professional Leadership of the National Statistician: Article 2(b), 2(c) and 5(a) states that the National Statistician will head the ICBS, guide the statistical system in state institutions, and act on the basis of scientific considerations. State institutions must consult the National Statistician before conducting statistical activities which address the public.

B. Planning, Coordination and Documentation by the PCS and the ICBS: Article 3(2), 3(4), and 3(5) state that the ICBS will cooperate with state institutions in conducting and publishing statistical activities, preparing with the PCS general long-term plans for them and establishing uniform statistical classifications to be employed by state institutions. In addition the ICBS is required to assemble and publish information concerning the statistical activities planned and carried out by state institutions or on their behalf.

C. Advisory and Coordination function of the PCS: Article 4 describes the composition and functions of the Public Council for Statistics (PCS). Its Chairman is appointed by the Prime Minister, and it is to be composed of representatives of state institutions, institutions of higher education and research, public bodies and of experts on statistics, economics and society. Its functions include: advising the Prime Minister and government on statistical activities conducted by state institutions, and the National Statistician on activities of the Bureau; receiving plans for undertaking statistical activities by state institutions and advising them on coordination between them; proposing measures to make statistical activities by state institutions more efficient.

The ICBS is the major producer of Official statistics in Israel, but in several major subject matter areas official statistics, including those reported to international agencies, are produced by other member of the INSS. The ordinance envisions coordination of national statistical activities within the INSS and allocates responsibilities for promoting and maintaining coordination. The requirement that the National Statistician should base his actions exclusively on “scientific considerations” anchors his authority to promote impartiality and statistical quality.

However, in practice many of these functions have been exercised only partially, if at all. Although their professional competence and impartiality were respected, there are no sanctions to back up the central roles of the National Statistician and the ICBS in coordinating the system and assuring its quality, nor are these roles formally acknowledged by the rest of the INSS. The general reference to “scientific considerations” does not satisfy the need for explicit and enforced quality standards. The demarcation of the INSS and the definition of its members on the one hand, and its commitment to specific quality standards on the other, are not defined explicitly. Moreover, for a variety of reasons, for many years the PCS ceased to function.[[1]](#footnote-1)

**2. Review by the State Comptroller**

The lack of fulfilment of these obligations was addressed by the State Comptroller in his annual report for 2014. He reprimanded the ICBS and the PCS for not carrying out their coordination function, for not assuring standards of quality throughout the INSS, for not requesting and commenting on plans for statistical activities by state institutions; and he reprimanded government Ministries for not consulting the ICBS and not coordinating their statistical activities with it:

*The ICBS should take the actions necessary to improve its joint activities with state institutions, in a manner which will enable it to ascertain that the statistical information it publishes meets the professional standards necessary for statistics; state institutions…should cooperate with the ICBS and permit it to exercise its functions, and in addition they should provide it with information and consult it in all matters which the Statistical Ordinance requires; the Chairperson of the Public Council for Statistics should ascertain that the Council will take the decisions that will enable it to give substance to its activities and to fulfil its role as set out in the Statistics* *Ordinance*. (State Comptroller, 2014, p 249)

This criticism was welcomed by the ICBS, and encouraged and justified it in intensifying efforts and plans to coordinate the statistical system and promote quality standards, activities which had begun before the criticism was published. These efforts will be assessed below, once we have summarised the state of affairs before the State Comptroller’s review.

**3. Efforts to promote quality management and coordination before the Review.**

Although Israel is not subject to an obligatory legal framework which promotes quality and coordination (such as that underlying the European Statistical System) it is bound by its treaty commitments and its membership in international statistical bodies such as the IMF, the OECD, and other international statistical bodies under the umbrella of the United Nations. Since the late 1990s membership in the first two bodies in particular required Israel to meet generally recognized statistical quality standards. In the same period internal requirements within the context of Israeli public administration led the ICBS to quality management efforts.

*3.1 Influence of the IMF*

The ICBS’s and the INSS’s first concrete encounter with modern statistical quality management standards and requirements came when in 1996 it subscribed to the IMF’s Special Data Dissemination Standard (SDDS) for macroeconomic, monetary and financial statistics, which it fully met in 2000. The standard is based on a multidimensional concept of quality, emphasizing requirements for dissemination, accessibility and serviceability along with the more traditional dimensions of methodological soundness, accuracy and integrity. Meeting the requirements obliged the ICBS to adopt and assimilate stricter and more standardised protocols for documentation and control of timeliness in its statistical production than had characterised it up until then. In 2006 ICBS underwent a thorough review by an IMF mission towards the preparation of a Report on the Observance of Standards and Codes—Data Module (ROSC), using the IMFs Data Quality Assessment Framework (DQAF). This obliged the ICBS (as well as the Bank of Israel and the Ministry of Finance) to demonstrate its adherence to modern quality standards (IMF,2006). The mission found that in general Israel met SDDS requirements, while requiring it to increase its observation of timeliness and definitions of monetary statistics. However it chose to note that: “Israel does not fully manifest the intra- and interagency coordination and communication that are the hallmarks of most SDDS subscribing countries. This has placed an undue burden on the Central Bureau of Statistics (CBS) as the national coordinator.” (p.4). This assessment was one of the first motivations towards ICBS’s current policy to try to lead national statistical coordination, and to anchor it in a general quality framework like DQAF. It led the ICBS to initiate the drawing up a Memorandum of Understanding (MOU) with the Bank of Israel (signed in 2008) to formalise the demarcation of statistical activities and mechanisms of coordination, an MOU which became the model for future attempts at bilateral coordination.

*3.2. Accession to the OECD*

Israel joined the OECD as a full member in 2010, and the Roadmap to acceptance (2007-2009) entailed a thorough examination of Israel’s statistical system, while the Terms of Accession (OECD, 2010) included the requirement of a progress report to the committee on statistics within two years regarding Israel’s observance of international standards and guidelines (OECD, 2012). This process required the ICBS to lead and become the principal channel in the coordination and harmonization of statistical activities of the variety of Israeli institutions which provide their statistics to the OECD.

To this end the International Relations & Statistical Coordination Department of the ICBS set up a number of bilateral and multilateral activities within the INSS, which itself began to take shape as a potential entity, informally, through these activities, along with ICBS’s leadership role within it. ICBS staff found themselves coordinating and promoting international standards for concepts, procedures and data transmission processes. As a result they themselves became much more familiar with the international quality and metadata standards which they were required to mediate to the INSS as a whole.

3.3 **.** *First European Union Twinning Project.*

In 2013-2014 a European Commission financed Twinning Project with Statistics Denmark was conducted, and one of its five components focussed on coordination of the INSS (EU Twinning Project, 2015). The project had several concrete achievements, including the adoption by the ICBS management in 2014 of the European Code of Practice for Official Statistics (COP, 2011) a conference of statistics producers with the INSS, an attempt to map all statistics produced within the INSS, an attempt to defined “Core Statistics” within the INSS, a model for future MOU’s with government agencies, exploration of proposals to create a common web portal for official statistics, and a proposal for concrete goals and mechanisms for coordination of the INSS within ICBS’s overall strategic activities.

However one of the most significant attainments was not planned in advance, but arose within the component of the project which addressed strategic planning: the realization of the intimate connection between quality management and metadata strategy, and that both needed to be linked through an integrated and a centralised system that would be grounded in the fundamental business process of the ICBS, as mapped by the Generic Business Process Model (GSBPM). All these were new ideas in the ICBS, and it has taken much time to assimilate them and realise their consequences. The initial conclusion following the Twinning project was that although a general quality framework and a centralised metadata system for the ICBS was needed, for the time being budgetary and institutional constrains dictated that it was necessary to avoid being overly ambitious and to proceed in small manageable steps.

*3.4. The EFQM project.*

Quality standards received attention through domestic stimuli as well. In the late 1990s ICBS began but did not complete a process of seeking ISI 9000 accreditation. More successfully, as part of an overall effort within the Israeli Civil Service to promote quality and excellence practices, it was decided in 2005 to implement the EFQM the excellence model, on a voluntary basis, within 9 ICBS units. These units went through a thorough self-assessment procedure, with a view to widening the process to the rest of the ICBS. The units introduced a number of improved procedures and rewrote and assembled their internal documentation. A quality steering group led to several initiatives for general improvements. However, these standardised EFQM projects were not linked to specific concepts of statistical production, as modelled in GSBPM. Moreover, the model project was never followed up on an organization wide basis, and as the resources needed to maintain it were not made available, the project lost momentum. Nevertheless staff who gained experience in quality management ideas have been key players in subsequent efforts to revive quality management practices.

**4. After the Review: the achievements of the second Twinning project**

As we have seen the issues of quality management and INSS coordination have been intimately connected in ICBS activities. Moreover it was realised that the external incentives provided by an EU Twinning project helped to recruit the efforts and attention of members of the INSS, and to assure commitment within the ICBS. In 2016 a second EU Twinning Project was launched with Statistics Denmark (2016-2018), and this time quality management of official statistics within the ICBS and the INSS as a whole was one of the four components.[[2]](#footnote-2) The project built on and enhanced elements of quality management which were a legacy of the previous Twinning project, and initiatives launched by the National Statistician in the wake of the State Comptroller’s review.

*4.1 Initiatives since 2014.*

In conformity with the need to proceed with “small manageable steps”, a metadata project was launched within the ICBS using in-house developed software and aimed at collecting existing reference metadata using the Single Integrated Metadata Structure (SIMS), with a view to assembling standardised and reviewed metadata that could be used for reporting purposes from all subject matter units of the ICBS. A pilot project to test the platform was conducted on Education Statistics. This was one of the first cases in which the ICBS was challenged to translate and adapt international standards into Hebrew.

In parallel, in 2014 the National Statistician asked two senior staff members to form a unit dedicated to quality assurance in the NSS. They prepared an overall plan, which was presented to the Board of the ICBS for approval in May 2015, and to the PCS in June of that year.

In order to answer the institutional requirements of the plan, a Statistical Quality Management Department was established in 2016. In addition, a senior committee for coordination and quality management was established, led by the newly-appointed Chief Scientist of the ICBS, and consisting of the heads of units and projects directly involved in coordination and quality management. This steering committee subsequently accompanied the activities launched within the Twinning project.

Most importantly, it also began to move beyond bilateral agreements to launching INSS-wide coordination activities, initiating two large INSS conferences one in November 2017 and the next in May 2018, which allowed INSS members to begin to discuss mutual issues regarding national statistical coordination, and to begin the exposure of INSS members to international standards and quality management requirements. The first meeting led to the establishment of a Steering Committee made up of senior INSS members, which will join the ICBS in charting subsequent activities. Another initiative involves the establishment by the National Statistician of an Advisory Committee consisting or INSS members and public and private polling organizations which has begun to prepare national standard for the planning, conduct and publication of statistical surveys conducting by or on the behalf of INSS members. The overall strategy of INSS coordination has been that although the ICBS provides leadership, in the absence of concrete sanctions and direct authority, quality and coordination will be advanced through mutual self-interest in quality statistics and by the joint cooperative efforts of the INSS “community” as a whole.

*4.2 Initiatives within the second Twinning Project[[3]](#footnote-3).*

The goals of the Twinning project were ambitious: they comprised developing and testing a quality audit system based on Scandinavian models; developing and testing a system for producing Quality Declarations based on the metadata system which ICBS had developed and Danish models; developing training programs for quality principles in the ICBS and the INSS; and preparing a Roadmap for statistical coordination of the INSS (which built on previous efforts). Most if not all of the objectives were achieved whether fully or in the sense that the mixed experience gained in them taught valuable lessons which will help to insure future success.

One of the most important benefits of the project was that in order to carry out the activities involved key international documents and standards were translated into Hebrew for the first time, among them the CoP and the Quality Assurance Framework (in the versions formulated for ENP South Countries), the GSBPM and its documentation, and revised versions of the SIMS. The process of translation involved many staff members, and involved deepening their understanding of the standards, their advantages and meaning. Over the three years of the project these staff were also exposed to EU training in quality standards and management. This formed the basis for an institution-wide process of learning and adoption, which has begun but has not yet reached its peak. Mapping production through the GSBPM, for instance, is becoming a fundamental institutional tool, and its implications for requirements of standardization and coordination are spreading throughout the organization.

*4.3 Lessons learned*

The chief benefits of the second Twinning project have been the creation of an infrastructure of knowledge and some much needed experience in the difficulties of implementation. Although in many cases the strategy of “small manageable steps” is essential, it has become apparent through the experience gained over the last three years that the intimate connection between organizational efficiency, quality management and metadata strategy requires bolder plans. While testing quality audits, it became clear that the lack of systematic metadata and an understanding of the standard business process both hampered the everyday functioning of the subject matter units, and slowed down the audit process. When trying to test the production of standard Quality Declarations, it became obvious that the documentation and the instructions created within the limited SIMS-based metadata project could not yet meet reporting needs without considerable investment of time, training, and IT infrastructure. In a course introducing INSS member to international quality management ideas it became evident that they would have benefited from concrete examples from a functioning metadata system within a mapped business process. Teaching international standards and quality management ideas is far less effective without the ability to demonstrate the benefits and challenges of concrete systems. But planning, building and introducing a centralised metadata system involves fundamental organizational change, which will require both leadership and investment. This realisation is one of the important outcomes of the project.

In looking back at a decade of efforts only one additional MOU has been signed (with the National Statistical Institute, 2015). It has been found that bilateral agreements, while important, do not raise the awareness of the need for general nation-wide interagency coordination, which must proceed in parallel, reinforcing bilateral agreements. The present challenge is to move beyond bilateral agreements to a multilateral system with mutual commitment to common principles and practices, and functioning monitoring institutions. Here too fundamental organizational change is required.

The “founding” of a concrete INSS through two conferences and the formation of a steering committee is another concrete achievement on which to build. Today most members of the INSS regard it as a forum in which they can raise their needs for products and services from the ICBS, and express their dissatisfaction with the present infrastructure of data exchange and cooperation, rather than as body which will eventually demand adherence to joint quality standards. The chief products of the INSS-wide meetings so far has been an acknowledgement and formalization of the professional leadership of the ICBS within the INSS, and a realization by the ICBS and the INSS Steering committee of the organizational and, perhaps, the legislative changes that will be required before the vision of for the INSS, which was presented at the second conference is realised: “Reliable, comprehensive and coordinated statistical information that meets the needs of state institutions, the public and researchers”.

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1. The PCS was relaunched and a new chairman was appointed in October 2013. Its plenary body now meets regularly (at least quarterly), and receives reports from the National Statistician. Sub-committees dedicated to specific statistical areas have been formed or re-formed, with representatives from state institutions and academic experts. These sub-committees act primarily as advisory bodies to the ICBS in their domains and have produced valuable work over the last 4 years. Unfortunately, although its role is important there is no space to discuss the activities of the PCS within this paper. [↑](#footnote-ref-1)
2. Twinning Project Fiche: Support to the Israeli Central Bureau of Statistics in Improving the Quality of Official Statistics <http://www.cbs.gov.il/twinning16_18/fiche_twinningproject.pdf> [↑](#footnote-ref-2)
3. For additional information see documentation in the ICBS website: <http://www.cbs.gov.il/reader/?MIval=cw_usr_view_SHTML&ID=1001> [↑](#footnote-ref-3)