Experiences with a quality management system based on the European Statistics Code of Practice and EFQM

Blagica Novkovska,
State Statistical Office of the Republic of Macedonia
1. EFQM
   - Impact
   - Action plans
   - Results and drivers

2. CoP
   - EFQM vs CoP
   - Statistical business process model
   - Metadata driven production system
   - DESAP – the European Self Assessment Checklist for survey managers

3. Self-assessments and Peer Review

4. Future challenges
The principles of the European Foundation for Quality Management (EFQM) are employed by SSO as systematic approach in quality management since 2006.

Our journey towards excellence in quality has started with Common assessment framework (CAF) in 2007.

Why we use CAF?
- To get a realistic view of how good our organization is
- To identify where to focus improvement efforts
- To bring initiatives together into a single framework
- To understand the drivers behind results
CAF impact on SSO institutional environment

- SSO has successfully identified own advantages and weaknesses
- A good evaluation system for fulfillment of strategies and policies was established
- Increased awareness of all employees about the importance of quality management
- Key performances improved as result of implemented action plans
Action plans for improvement

- Selected priority areas for improvement (2007)
  - Strategy and planning
  - Human resources management
    - Mentoring
    - Internal trainings
- Selected priority criteria for action (2010)
  - Management of processes and changes
  - Partnership and resources
- Processes stays as highest priority (2011)
  - Key point in the priority setting – link between CAF and CoP
  - SSO Business process model adaptation and adoption
Self-assessments results based on EFQM

Leadership
Strategy and planning
Human resources management
Partnership and resources
Management with processes and changes

Results concerning key performances
Results concerning the employees
User/citizen-oriented results
Societal results

2007 2009 2011
SSO performance improvement
Drivers for improvement

- Strategic documents
  - SSO strategy
  - Dissemination strategy
  - Communication strategy
  - Metadata strategy

- Improved planning
  - Action plan for every strategy and follow-up matrix
  - Five annual statistical programme
  - Annual statistical planning
  - Project planning
  - In-house training plan

- Staff Satisfaction Survey
- User Satisfaction Survey
European statistics Code of practice vs. EFQM

- EFQM puts more emphasis on internal management processes
- CoP when dealing with processes, focuses more on statistical production aspects
- European Code of practice officially accepted in 2009
  - 15 principles of CoP included as SSO values in the SSO strategy in 2010
From EFQM to CoP – different scopes and objectives

- Why was introduction of CoP necessary
- Aspects of the CoP not covered by EFQM
  - Principles 2: Mandate for data collection
  - Principle 6: Impartiality and objectivity or
  - Single indicators of some principles (Professional independence, adequacy of resources, quality commitment, statistical confidentiality)
- Aspects of EFQM partially covered by CoP
  - Leadership
  - Policy and strategy
  - People results (Staff satisfaction survey)
Intersection CAF and CoP
Adoption of SBPM – important milestone

- SSO statistical business process model (SBPM) adopted in 2010
- Added value of SBPM
  - Standardization for process and quality metadata
  - Common ground for implementing CoP principles 7 - 15 (Statistical processes and Statistical output)
  - Supports proper planning and evaluation
  - Improvement of process efficiency and quality
DESCRIPTION OF METADATA FLOWS

**Metadata Input**
- Description of statistical methodology for processing data (specified in Design phase)
- Description of all steps of data processing relevant to the data in question, and necessary to analyze the data properly (documented in Process phase)
- Data quality aspects documented in phases: Collect and Process

**Metadata Output**
- Description of statistical methodology for further treatment of statistical aggregates or derived statistics (indices, trends or seasonally adjusted statistics)
- Assessment of quality of the final data/outputs produced in accordance with the quality framework, criteria and standards applied in SSO, and the ESS quality reporting requirements for the statistics
- Brief Report on applied Statistical Disclosure Control (SDC)

**Roles and Responsibilities**
- Subject-matter staff - quality assessment of final outputs and SDC report
- Statistical methodologists - support subject-matter staff in quality assessment
- Subject-matter staff and statistical methodologists - description of statistical methodology for further treatment of statistical aggregates or derived statistics

**Quality Aspects for Consideration**
- Accuracy (main sources of error, sampling and non-sampling errors)
- Comparability (over time and between geographical areas, length of comparable time series, series breaks and treatment)
- Coherence (internal coherence and consistency, usage of common methodology, standard concepts, definitions, classifications)
Evaluation and feedback throughout the statistical business process are prerequisite for sound quality management

- Effectiveness of statistical production process is to be considered
- The quality of statistical product is to be assessed
SBPM FURTHER EXPLORED

- Mapping with CoP is important for quality management

- Bi-directional mapping between SBPM and CoP
  - On the level: PHASE – PRINCIPLE
  - On the level: INDICATOR – SUB-PROCESS
BI-DIRECTIONAL MAPPING BETWEEN SBPM AND COP

EUROPEAN STATISTICS CODE OF PRACTICE

PRINCIPLE 8: APPROPRIATE STATISTICAL PROCEDURES

1:N

INDICATORS

SUB-PROCESSES

SSO STATISTICAL BUSINESS PROCESS MODEL
DESA - the European Self Assessment Checklist for survey managers

- Adopted process-oriented tool for identifying strengths and weaknesses in the main survey processes
- Self-assessment questionnaire aligned with the SSO statistical business process model
- Pilot implementation was on two statistical surveys
SBPM and other SSO quality management initiatives

- SSO SBPM
  - Phase 1
  - Sub-process 1.1
  - Activity 1.1.1
  - ... 
  - Sub-process 8.1
  - Activity 8.4.1
  - ... 
  - Sub-process 8.4
  - Activity 8.4.3

- Overhead Activities

- Annual Statistical Programme
  - Deadline 1
  - Deadline k
  - Deadline n

- Catalogue of Activities
  - Activity 1.1.1
  - Activity k.1.1
  - Activity n.1.m

- Activity Based Time Recording
  - Date/Time 1
  - Date/Time 2
  - ... 
  - Date/Time m

- Information flow to Managerial Board

DEADLINES FOR ACTIVITIES PER SELECTED STATISTICAL TASK

USER RECORDED DATE AND TIME PER SELECTED STATISTICAL TASK AND ACTIVITY

Control and monitoring of Annual Programme execution

Deadline k > Date/Time 1
Deadline k > Date/Time 2
... 
Deadline k >= Date/Time m
ACTIVITY-BASED TIME RECORDING SYSTEM

 employee identification data

classification of direct cost units (statistical surveys) and indirect tasks (supporting activities)

SBPM activity
Standardization of processes – Metadata driven production system

- Implementation of advanced technologies based on statistical metadata driven approach for statistical information production and dissemination
- System for supporting automated data collection (eStat) - realization of the first priority task
- First step in process-oriented data production approach

**Specify Needs**
Due to a small number of new surveys in yearly statistics production this phase is classified as The third priority task

**Develop and Design**
Metadata creation directly into metadata system

**Build**
Applicable within development of stand alone production subsystems

**Collect**
**Process**
**Analyze**
The first priority task in the development of metadata driven system able to manage production processes

**Disseminate**
**Archive**
The second priority task or long term perspective to expand the system with functionality of involved processes
Light Peer Review

Light Peer Review at SSO in 2010
Main findings of the peer review team

- A visible and well documented progress with regard to the institutional aspects, as well as the accessibility of statistical information
- Quality is considered to be a high priority of the SSO
- Key office documents confirm the commitment of the management regarding quality issues.
- Quality reports have been elaborated for several surveys while quality in the process of data production is monitored to a certain extent.
Quality assurance framework (QAF)

- QAF is complementary part of CoP
- SSO is using QAF as guidance for further alignment with CoP
- QAF is transformed in a matrix for better visualization the current status with the alignment and to decide easier for the priorities for improvement actions
Main fields of action:

- Integrated IT system (eStat) put into daily practice
- Process change management
  - Further process standardization based on the SBPM
  - Benchmarking of comparable statistics
- Quality assurance – development of procedures for monitoring quality of processes
- Self-assessment tool for the survey managers (DESAP) put into daily practice
- Preparations for the next round of peer review
Thank You for Your Attention!