Rethinking and reshaping Organizational systems in time of changes: The Process of Risk Management in Istat

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Workshop HRMT
Modernising statistics: how to get there? Geneve, 16 October 2014
Why doing Risk Management?

**Pros**
- No overlapping !!
- More quality of services and products
- Supporting decision-making processes
- Enhancement of transparency

**Cons**
- Initial investment in resources and training
- Organizational re-thinking by production processes
- High innovation, low experience in PA
Risk Management Objectives

Protecting and strengthening:

- Values, ethics and sense of belonging
- Entity’s tangible and intangible assets
- Growth of organizational culture

- Leadership and relationship
- Effectiveness and efficiency of processes
- Resources for strategic priorities
- Stakeholder’s satisfaction
«Golden Rules» to follow

- Considering culture, values and human behaviors
- Using common language and updated information
- Building context-oriented tools
- Addressing real risks
- Promoting transparency and staff involvement
- Being a part of decision-making processes
- Protecting and preserving every asset
- Being dynamic and responsive

- Complying with standards recognized at international level
Risk Definition

**Risk** is the effect of uncertainty on objectives, intending this effect as a deviation from the expected (positive and/or negative), often characterized by reference to potential events and consequences, or a combination of these.

Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated **likelihood of occurrence**.

**Uncertainty** is a state, even partial, of deficiency of information related to: understanding or knowledge of an event, its consequence, or likelihood.

RISK MANAGEMENT is a process, effected by management and other personnel, applied in strategy across the enterprise, to identify potential events, and manage risks to assure the achievement of objectives.

Co.SO. ERM, 1992/2004/2013

# Risk management project in Istat

## The Road Map

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013..2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project launched</td>
<td>Approach trial</td>
<td>Experimental phase</td>
<td>Experimental phase</td>
<td>Full implementation</td>
</tr>
<tr>
<td>• Analysis and comparison of practices and models</td>
<td>• Pilot and rollout of risk management approach</td>
<td>• Creation of a risk register</td>
<td>• Revision of a risk register</td>
<td>• Integration w/ operational planning</td>
</tr>
<tr>
<td>• Identification of appropriate approach</td>
<td>• RM training and dissemination</td>
<td>• Risk assessment</td>
<td>• Identification of risk treatments</td>
<td>• Risk treatment monitoring</td>
</tr>
<tr>
<td>• Establishing of Istat’s RM model</td>
<td></td>
<td>• RM training and dissemination</td>
<td>• RM training and dissemination</td>
<td>• Information System startup</td>
</tr>
</tbody>
</table>
Risk management project in Istat

The project has been developed following four parallel but related paths:

1. **Organisation**: both the President and the Directorate general endorsed and sponsored the project. A business unit was involved in implementing and coordinating risk management system

2. **Training and dissemination** program, in order to improve management culture and promote a common language and understanding throughout the organisation

3. **Risk Management process**

4. **Information Supporting System**

![Diagram of Risk Management Process]

- **Establish the Context**
- **Identify Risks**
- **Analyze & Evaluate Risks**
- **Treat Risks**
- **Monitor and Review**
- **Communicate and Consult**

ISS
The ERM Process in ISTAT

1. Survey on perception

2. Risk Identification

3. Risk Assessment

4. Communication and Reporting
Step 1: Survey on Risk perception

The questionnaire on management risk perception is composed of about **70 questions**

- It is divided into **4 sections**: 1) Internal control environment and organisational culture; 2) Objectives of the organisation and Risk Management; 3) Identification and classification of risk factors; 4) "Cataloging" risk

- It investigates **four dimensions**:
  1. risk perception compared to the **activities of each manager**;
  2. risk perception in the Institute as a whole;
  3. maturity of the control environment in the structure leded by each manager;
  4. maturity of the control environment in the Institute as a whole
Step 2: Risk catalogue

- Risks and organisational criticalities: more than 96% of the total (100% in the Prioritization Areas)

- About 78% are criticalities, i.e. inefficiencies in management of processes solved by organisational improvement (over 80% in the P. A.)

- About 4% are problems different from organisational risks (i.e. statistics, ICT, exogenous factors, human resource policies)

<table>
<thead>
<tr>
<th>Nature</th>
<th>All Areas</th>
<th>Prioritization Areas</th>
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</thead>
<tbody>
<tr>
<td>Risks</td>
<td>65</td>
<td>33</td>
</tr>
<tr>
<td>Criticalities</td>
<td>279</td>
<td>137</td>
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<tr>
<td>Others</td>
<td>15</td>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>All Areas</th>
<th>Prioritization Areas</th>
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</thead>
<tbody>
<tr>
<td>Strategic</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Compliance</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Operatives</td>
<td>310</td>
<td>155</td>
</tr>
<tr>
<td>Reporting</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Exogenous</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>
The Control & Risk Self Assessment (C&RSA) measures risk likelihood and impact on the organization; the multiplication of the two factors determines the overall value of the risk.

### Likelihood

<table>
<thead>
<tr>
<th>% of errors</th>
<th>Ranking</th>
</tr>
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<tbody>
<tr>
<td>&lt; 0,5%</td>
<td>1</td>
</tr>
<tr>
<td>0,6% - 5,0%</td>
<td>2</td>
</tr>
<tr>
<td>5,1% - 10,0%</td>
<td>3</td>
</tr>
<tr>
<td>&gt; 10,0%</td>
<td>4</td>
</tr>
</tbody>
</table>

### Impact

<table>
<thead>
<tr>
<th>Costs</th>
<th>Ranking</th>
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</thead>
<tbody>
<tr>
<td>&lt; € 50.000</td>
<td>1</td>
</tr>
<tr>
<td>€ 50.001 - € 200.000</td>
<td>2</td>
</tr>
<tr>
<td>€ 200.001 - € 500.000</td>
<td>3</td>
</tr>
<tr>
<td>&gt; € 500.000</td>
<td>4</td>
</tr>
</tbody>
</table>

**Risk Assessment**

* By a sample of self-evaluators representing the process influenced by the risks, everyone with the same weight
The **Risk Matrix (or Risk Map)** shows the distribution of the risks depending on their level of likelihood and impact.

- **Low gravity (green area):** about 24% of the critical events
- **Highest priority (red area):** about 18% of critical events;
- **Careful monitoring (yellow area):** about 58% of the critical events, with different gradation.
Step 4: Risk Treatment

466 organisational response actions (231 in Priorities Areas – “P.A.”)

- **58%** of the proposals refers to organisational or production improvement (about 62% in the p.a.);
- **Nearly 38%** of the actions are internal (about 44% in the p.a.);
- **Over 38%** of the actions requires the collaboration of different structures (about 39% in the P.A.)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>All Areas</th>
<th>Prioritization Areas</th>
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<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>466</td>
<td>231</td>
</tr>
<tr>
<td><strong>Risks and Criticalities</strong></td>
<td><strong>V.A.</strong></td>
<td>%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>450</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

**Types**
- Preventive: 36 (8,0%) - 24 (10,4%)
- Subsequents: 6 (1,3%) - 3 (1,3%)
- Improvement: 261 (58,0%) - 143 (61,9%)
- To deepen: 83 (18,4%) - 42 (18,2%)
- Others: 64 (14,2%) - 19 (8,2%)

**Responsabilities**
- Internal: 170 (37,8%) - 101 (43,7%)
- External: 44 (9,8%) - 22 (9,5%)
- Cross-cutting: 172 (38,2%) - 89 (38,5%)
- Not attributable: 64 (14,2%) - 19 (8,2%)
Main priority areas

- Management and administrative procedures: obsolescence, non-compliance, waste of resources, inefficiencies in sharing and disseminating information

- Recognition and quantification of the project costs to properly deploy the available resources

- Integration between the management systems to support decision making and sector plans

- Tendering procedures: requirements, preparation of specifications (technical and legal)

- Technical management of contracts and their qualitative and quantitative supply monitoring

- Compliance with regulations and technical standards (i.e. GSBPM) for improving the quality of services and reduce the risk of administrative fines
Application to Istat’s Modernization Programme “Stat2015”

- Launched in 2010, it aims at revamping the *business chain* by 2015, through coordinated multiannual projects.
- It is consistent with European and international best practices.
- It leads Istat from a *stovepipe model* towards an *integrated production system* based on common infrastructures and services.
- It provides an *overall framework* for methodological, *technological* and *organisational innovations*. 
GSBPM 5.0 - The Common Reference Point

### Through the Model

<table>
<thead>
<tr>
<th>Macro Phase of Data Production Process</th>
<th>Classification</th>
<th>Coding for Year Strategic Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata</td>
<td>Quality Reference Metadata</td>
<td>2015-02-02</td>
</tr>
<tr>
<td></td>
<td>Structural Metadata</td>
<td>2015-02-02</td>
</tr>
<tr>
<td></td>
<td>Strategic Planning Execution</td>
<td>2015-02-02</td>
</tr>
<tr>
<td>Develop/Build</td>
<td>Checklist of Relevant Contents</td>
<td>2015-02-02</td>
</tr>
<tr>
<td></td>
<td>Checklist of Data</td>
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<tr>
<td></td>
<td>Process Design</td>
<td>2015-02-03</td>
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<tr>
<td>Data Collection</td>
<td>Survey/Database (Form, Sample)</td>
<td>2015-03-02</td>
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<tr>
<td></td>
<td>Administrative Data</td>
<td>2015-03-02</td>
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<tr>
<td></td>
<td>Big Data</td>
<td>2015-03-04</td>
</tr>
<tr>
<td>Process/Analyse</td>
<td>Integration, Melding and Impediment</td>
<td>2015-04-02</td>
</tr>
<tr>
<td></td>
<td>Processing and Estimation</td>
<td>2015-04-02</td>
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<tr>
<td></td>
<td>Analysis</td>
<td>2015-04-02</td>
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<tr>
<td>Dissemination</td>
<td>Validated Metadata</td>
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<td>Corporate Data Warehouse</td>
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<tr>
<td></td>
<td>Visualization and Dissemination Techniques</td>
<td>2015-05-03</td>
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<tr>
<td>Processed/Methods</td>
<td>Standardization</td>
<td>2015-06-02</td>
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<tr>
<td></td>
<td>Quality</td>
<td>2015-06-02</td>
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<td>Process Support</td>
<td>2015-06-03</td>
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<td>Infrastructures</td>
<td>Common Reference Environment</td>
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<td>Archives</td>
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<td></td>
<td>Support System</td>
<td>2015-07-03</td>
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<tr>
<td>Coordination</td>
<td>2015-08-02</td>
<td></td>
</tr>
</tbody>
</table>

### Risk Management Model

### Change Management
The information system tool “RiskInIstat” has been implemented to manage risks via web with the main objective to let Management edit and view the necessary information in an intuitive and immediate way; it gives the opportunity to update catalogs and shows the objectives’ achievement progress at different stages of the ERM process and at different levels of the organization.
Process Phases

- **Catalog Update**: review and input of new information, by the structures, in their own catalogs

- **Catalog Validation**: the process Administrator verifies the data entered by the structures and supplement them with information within her/his competence

- **Monitoring response actions** to solve critical events

- **Planning response actions**: defining risk activities for next years

- **Reporting**: Processing reports containing specific information represented in the risk catalogs
Communication & Collaboration

The University of Rome Tor Vergata and the Italian National School of Administration have been deploying their interventions, in order to:

- Support Italian public institutions in starting risk management process in their specific fields, helping them select and adapt international standards
- Develop, coordinate research, train and participate in national and international scientific projects
- Promote a community of public and private companies engaged in experimenting innovative policies and Risk Management tools
- Systematize and enhance RM knowledge and experience in public entities
- Disseminate the results by publications, conferences, seminars and training
Thank you for your attention !!!

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