EXAMINATION OF INNOVATIVE PROJECTS THROUGH THE EFQM MODEL: A NEW APPROACH

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Mankind embarks on an innovation-based journey to ensure future progress. An innovative economy raises future life quality to a new level.

Innovations are necessary in many objects and spheres of human life and activity, such as products, education, environment protection, etc. Implementation of innovations enables us to improve the properties of products and technologies through practical use of ideas and inventions.

Therefore, there is a problem of understanding the value of this or that innovative project. It is extremely important to know the effectiveness of the resources (financial, time, human) allocated to the development of an innovative project. Examination allows us to reveal the most effective innovative projects, and to estimate the results of their implementation.

An innovative project should finally provide scientific and technical progress, as well as the economic growth that will positively affect the quality of human life.

As a rule, examination of innovative projects is limited to evaluation of the technological level of new products and the technological processes of their manufacture. The criteria for this examination include: novelty, competitiveness, economic efficiency, terms of implementation of the innovation, etc.

At the same time, the goal of the efficiency examination of an innovative project is not only the evaluation of its scientific and technological levels, but the resources and capability of its implementation as well.

Therefore, the examination should be performed through quality to understand whether the organization which has conceived the innovation, or plans its application, is capable of implementing the project. In fact, the final result of innovative activity depends on both scientific and technical levels, and the conditions in which it is carried out.
The second part of the examination procedure offered by us is based on up-to-date quality management techniques, such as:

− quality management systems;
− environment management systems;
− self-assessment;
− assessment results for quality contests.

Such an approach reveals a level of maturity of the organization which ranges from product conformity to customer satisfaction and business excellence.

The St. Petersburg enterprises and authorities traditionally apply the EFQM Excellence Model for finding the strong points of organizations, their rating, making decisions on financial support, understanding a position in the marketplace, analysis of the leadership role, evaluation of corporate social responsibility.

Our specialists have suggested a new application of the EFQM Excellence Model: to examine innovative projects on the basis of assessment against its criteria. This was found to be a very effective and beneficial tool.

When making a decision on the financial backing of innovative projects, the authorities base their considerations on the results of self-assessment and quality contest assessment, which indicate the successful organizations.

The self-assessment technique allows the solution of another problem. The analysis of activities across an organization places a priority focus upon the key divisions and functions which need the financial backing of innovations to enable the success of the whole organization.

Thus, when carrying out the examination of innovative projects, it is necessary to take into account the presence of operating management systems in the enterprises, and self-assessment and assessment results against the Excellence Model criteria.

It will allow the achievement of optimum financial allocation for innovative development, both inside and outside the organization, on the basis of the application of uniform examination criteria.
Examination of Innovation Projects through EFQM Model: New Approach

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Where the innovations are needed?

Objects and spheres of innovative development

<table>
<thead>
<tr>
<th>Labour protection</th>
<th>Products</th>
<th>Processes (technologies)</th>
<th>Education (training)</th>
<th>Management</th>
<th>Living environment</th>
<th>Environment protection</th>
<th>Public living standard</th>
</tr>
</thead>
</table>

Indicators

<table>
<thead>
<tr>
<th>Occupational health and safety regulation</th>
<th>Quality of raw materials, materials and details</th>
<th>Resource consumption</th>
<th>Equipment and facilities of educational establishments</th>
<th>Structure of a management system</th>
<th>Quality of food, clothes, housing, transportation, healthcare, leisure</th>
<th>Results of environment monitoring</th>
<th>Incomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentation of work place</td>
<td>Quality of equipment</td>
<td>Waste, recycling</td>
<td>Actualization of educational courses</td>
<td>Functions and interlinks in a system</td>
<td>Public security</td>
<td>Environmental measures</td>
<td>People Qualification</td>
</tr>
</tbody>
</table>
Financial structure for research and development in St. Petersburg

- Federal budget 70%
- Funds 18%
- Domestic customers 5%
- Foreign customers 4%
- City budget 0.5%
- Own funds 2.5%
Components of effectiveness of an innovative project

Effectiveness of innovative project

- Scientific and technical effect
- Economic effect
- Social effect
- Environmental effect

Scientific and technical progress
Economic growth
Quality of life
Methods of assessment of an organization’s potential for implementation of innovative projects

Maturity (total score)

Max. score

1000

Quality award winners

Self-assessment versus quality award criteria

ISO 9004:2000

ISO 9001:2000

ISO 9001:1994

CONFORMITY

+ SATISFACTION

+ SATISFACTION + EXCELLENCE

Integrated assessment
Benefits from establishment of ISO 9001 quality management system
(results of the company opinion survey)

<table>
<thead>
<tr>
<th>Benefit derived</th>
<th>% of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of management</td>
<td>78</td>
</tr>
<tr>
<td>Improvement of process operation</td>
<td>77</td>
</tr>
<tr>
<td>PR and advertising image</td>
<td>73</td>
</tr>
<tr>
<td>Improvement of customer servicing</td>
<td>70</td>
</tr>
<tr>
<td>Simplification of the decision making</td>
<td>70</td>
</tr>
<tr>
<td>Growth of production efficiency</td>
<td>69</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>67</td>
</tr>
<tr>
<td>Enhance of customer satisfaction</td>
<td>67</td>
</tr>
<tr>
<td>Effective recruitment of personnel</td>
<td>54</td>
</tr>
<tr>
<td>Expansion of a market share</td>
<td>47</td>
</tr>
</tbody>
</table>
## Economic effect of a quality management system (QMS)

<table>
<thead>
<tr>
<th>Economic indicator</th>
<th>Enterprise operating registered QMS</th>
<th>Industry average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
<td>Middle</td>
</tr>
<tr>
<td>Profitability</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,4</td>
<td>4,9</td>
</tr>
<tr>
<td>Growth of sales per employee divided by industry average*</td>
<td>4,0</td>
<td>3,2</td>
</tr>
<tr>
<td>Capital return (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16,6</td>
<td>16,2</td>
</tr>
<tr>
<td>Growth of investments per employee divided by industry average*</td>
<td>1,9</td>
<td>2,2</td>
</tr>
</tbody>
</table>

*Notice: average branch values of indicators are taken for one
Number of ISO 9000 certificates issued worldwide (total: 951486 certificates in 175 countries)

Note: (current position / last year position)
### Branch modifications of ISO 9001:2000

<table>
<thead>
<tr>
<th>Branch</th>
<th>Document</th>
<th>Country</th>
</tr>
</thead>
</table>
| Aerospace                                        | AS/ISQ/EN 9100, AS/ISO/EN 9101  
Draft EN 9000-2, Draft EN 9000-3, AS/EN 9110, AS/EN 9120  
EN14736                                                | EU            |
| Electrical engineering, electronics and software | IEC 60300-, IEC 60300-2, ISO 90003,  
CEI 0-12:2002  
JEAG 4111, JEAG 4121                                         | Worldwide     |
| Petrochemical, chemical                          | ISO/TS 29001  
ONORM S 2095-3                                | Worldwide     |
| Agriculture, food industry                       | ISO 22000, ISO 15161, ISO/AWI 22006  
U27 000610  
HB 90.4                                                 | Worldwide     |
| Transport, automotive industry                   | ISO/TS 16949, ISO16106, EN 12507  
UNE 66926                                              | Worldwide     |
| Construction                                     | IRAM 30100  
HB 90.3                                                  | Argentina     |
| Mining                                           | ISO/TS 13352                                                          | Worldwide     |
| Healthcare                                       | ISO 13485, ISO/TR 14969, ISO 15189, ISO/WDIS 15378, ISO IWA 1  
DIN 58936-1, DIN 58936-2, DIN 58959-1  
CEN/TX 15224  
Guide 26, Guide 42, Guide 43, UNI 10881  
HB 90.8  
IRAM 302000  
UNE 66928                                              | Worldwide     |
| Services (hotel business, education, legal and insurance services, library services, laundry) | ENORM 13549, EN 13549  
ISO IWA 2  
IRAM 30000, IRAM 30500  
NTC 541/03  
Guide 22, Guide 37, Guide 39, Guide 44,  
New project CEN N 1098,  
HB 90.2, HB 90.6, HB 90.7  
UNE 66927, UNE 66929,                                      | EU            |
| Small business                                   | H890.1                                                              | Australia     |
Model of excellence EFQM

Enablers

1 Leadership (10%)
   - 2 Policy and Strategy (8%)
   - 3 People (9%)
   - 4 Partnerships and Resources (9%)

5 Processes (14%)

7 People Results (9%)
6 Customer Results (20%)
8 Society Results (6%)
9 Key Performance Results (15%)

Results

Innovation and Learning

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Assessment of six research institutions in St.Petersburg

Criteria

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<th>Leadership</th>
<th>Policy and Strategy</th>
<th>People</th>
<th>Partnerships and Resources</th>
<th>Processes</th>
<th>Customer Results</th>
<th>People Results</th>
<th>Society Results</th>
<th>Key Performance Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of max. scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>1</td>
<td>53</td>
<td>50</td>
<td>55</td>
<td>51</td>
<td>53</td>
<td>54</td>
<td>60</td>
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<td>2</td>
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<td>57</td>
<td>57</td>
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<td>60</td>
<td>70</td>
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<tr>
<td>4</td>
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<td>6</td>
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<td>56</td>
<td>56</td>
<td>58</td>
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</tbody>
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Assessment of two small enterprises

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Small enterprise 1

Small enterprise 2
Assessment of an enterprise’s potential for internal financial backing of innovations
The optimal mechanism of assessment of potential of an innovative project

**SELF-ASSESSMENT**

Results of self-assessment enable to optimally allocate financial resources for innovations inside of an organization

**ASSESSMENT**

Examination by independent assessors allows to make a decision on financing an innovative project from external sources
Thank you for your attention!