

**PROCEEDINGS**

**Fourth International Working Conference**  
**TOTAL QUALITY MANAGEMENT**  
**– ADVANCED AND INTELLIGENT**  
**APPROACHES**

Edited by  
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## **Fourth International Working Conference**

### ***TOTAL QUALITY MANAGEMENT – ADVANCED AND INTELLIGENT APPROACHES***

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## CONTENTS

<b>01 - GLOBAL INTERNATIONAL COOPERATION OF COLLABORATING SMALL AND MEDIUM SIZED ENTERPRISES TO ACHIEVE TOTAL QUALITY MANAGEMENT.....</b>	<b>01</b>
➤ <b>Keynote paper</b> , Prof. Dr. H. Osanna, Prof. Dr. M. Durakbasa, Prof. Dr. M. Bauer, Dr. L. Kraeuter, Vienna University of Technology - TU-Wien, Vienna, Austria, National University of Lomas Zamora, Buenos Aires, Argentina.	
<b>02 - FROM QUALITY MANAGEMENT TOWARDS OPERATIONAL RISK MANAGEMENT.....</b>	<b>07</b>
➤ <b>Keynote paper</b> , Prof. Dr. Ir. Ton van der Wiele, MCM, Dr. Jos van Iwaarden, Erasmus University Rotterdam, The Netherlands.	
<b>03 - EDUCATED AND CERTIFIED METROLOGY PERSONNEL AS BASIS OF TQM IN INDUSTRY.....</b>	<b>15</b>
➤ <b>Keynote paper</b> , Prof. Dr. H. Osanna, Prof. Dr. M. Durakbasa, L. Kräuter, E. Güclü, Department for Interchangeable Manufacturing and Industrial Metrology, Vienna University of Technology - TU-Wien, Austria.	
<b>04 - BODY OF QUALITY KNOWLEDGE.....</b>	<b>21</b>
➤ <b>Keynote paper</b> , Dr. Margaret Ronney, IQA, London, England.	
<b>05 - LEADERSHIP: NECESSARY FOR QUALITY.....</b>	<b>25</b>
➤ <b>Keynote paper</b> , Dr. Pat Townsend, President, Townsend & Gebhardt, USA.	
<b>06 - EMBEDDING QUALITY INTO BUSINESS MANAGEMENT.....</b>	<b>29</b>
➤ <b>Keynote paper</b> , Rosam, I. <sup>1</sup> , MA in Engineering, Peddle Rob, <sup>1</sup> and Castka, P. <sup>2</sup> , <sup>1</sup> The HPO Group Ltd, UK, <sup>2</sup> University of Canterbury, New Zealand.	
<b>07 - RETAIL INNOVATION WITH IT AND HUMAN INTELLIGENCE (CONVENIENCE STORE'S CHALLENGE: SEVEN-ELEVEN JAPAN CO., LTD).....</b>	<b>35</b>
➤ <b>Keynote paper</b> , Prof. Shinji NARUO, Visiting Professor of the University of Bucharest, Business and Administration Faculty, Romania.	
<b>08 - LEVELS OF EXCELLENCE – APPEARANCE AND DEVELOPMENT.....</b>	<b>41</b>
➤ <b>Keynote paper</b> , Prof. Dr. Vidosav Majstorović, Mechanical Engineering Faculty, Belgrade, Serbia.	
<b>09 - THE QUICK SCAN – A NEW APPROACH TO TQM-ASSESSMENT.....</b>	<b>49</b>
➤ <b>Introduction paper</b> , Ass.Prof. Dr. Peter Kuhlang, Univ.-Prof. Dr. Wilfried Sihn, Technical University of Vienna, Institute of Management Science, Austria.	
<b>10 - DEVELOPING EXPERT SYSTEM FOR ASSESSMENT OF QUALITY MANAGEMENT LEVEL.....</b>	<b>55</b>
M.Sc. Milan IVANOVIĆ <sup>1</sup> , M.Sc. Platon SOVILJ <sup>2</sup> , <sup>1</sup> Lloyd's Register d.o.o., Novi Beograd, Serbia, <sup>2</sup> Faculty of machinery, Department for industrial engineering and management, Banja Luka, RS, BiH.	
<b>11 - QMS IN FUTURE - ISO TC 176 PERSPECTIVE.....</b>	<b>61</b>
Sheps Isaac, PhD, Chief Executive Officer, Carlsberg - South East Europe (Bulgaria, Croatia, Serbia, Bosnia & Herzegovina, Montenegro).	

## THE QUICK SCAN – A NEW APPROACH TO TQM-ASSESSMENT

Introduction paper

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**Abstract:** Independent from branch of business, size, structure or maturity organisations need a management system to be successful. A lot of leaders of SME search for a suitable organisational concept for their business. The EFQM Excellence Model including RADAR seems for many leaders too complex. To deliver the thoughts of the model and RADAR to the responsible managers an efficient method was developed – called QuickScan. Starting by analysing the stakeholders and their expectations the QuickScan discovers the results used to assess the accomplishment of stakeholders' expectations. The next QuickScan-step is to find out which activities, approaches or methods are deployed in the organisation, to manage processes, partnerships, finances, technologies, material, information and knowledge and employees. After answering the questions "Which are the strategic goals of your organisation? Which are your key processes and indicators for deployment of policy and strategy?" the needs for action in the areas of improvement are prioritised.

**Keywords:** Total Quality Management (TQM), EFQM Excellence Model, Assessment for SME, QuickScan

### 1 INTRODUCTION: EFQM MODEL, RADAR- LOGIC, ORGANISATIONAL CONTROL CYCLE

Excellence models like the 'EFQM Excellence Model' (EFQM-European Foundation for Quality Management), the 'performance excellence framework' for the Malcolm Baldrige National Quality Award (MBNQA), the model for the Deming Prize (Japan) are practical and appropriate tools to develop the applicable

management system of the relevant organisation towards excellence respectively towards total quality management. The models include diverse and innovative approaches to achieve sustainable excellence in all aspects of performance.

An excellence model offers a framework to represent, analyse and assess the active efforts and results of an organisation and to support the active development in terms of proactive design.

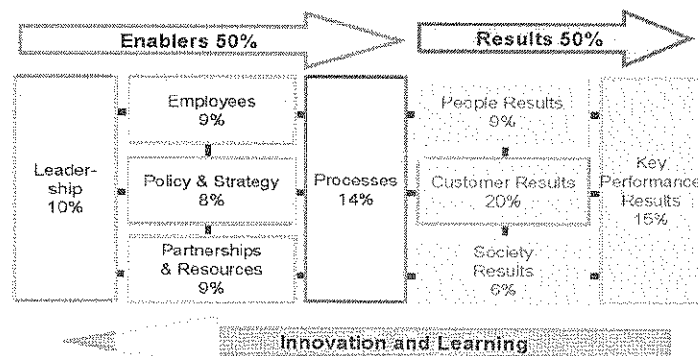


Figure 1 – EFQM Model for excellence /1/.

The EFQM excellence model (Figure 1) is an open framework made up of nine criteria, five of them the so called enabler criteria and four result criteria /1/. The models fundamental subdivision into enablers and results is based on the following question: 'How does an organisation achieve specific results?' The results are attributed to the enablers. Innovation and learning from the results and the corresponding approaches close a control cycle.

The RADAR-logic represents the EFQM assessment model. It summarises concisely the requirements implied in enablers- and results-criteria. RADAR is an acronym

of Results, Approach, Deployment, Assessment and Review.

When applying the EFQM Model and the RADAR-logic to assess an organisation, the elements 'approach', 'deployment', 'assessment & review' are applied to every enabler-criterion-part, and the element 'results' to every result-criterion-part. Based on a gradual assessment this approach is quantified and leads to a measure of the company's performance, the so-called excellence level.

The company's organisational control cycle refers to the strategy definition process and the strategy implementation process and therefore focuses on the long-term control of the whole company. Finding a

feasible balance between the different requirements of all stakeholders is the basic duty of management in the context of defining and realising the strategy /3,4/.

## 2 FUNDAMENTALS ABOUT QUICKSCAN

The QuickScan is a form of assessment conducted with the top management during a workshop in which the as-is analysis of an organisation or department is performed. It is accomplished by using questions derived from the EFQM Model and the RADAR-logic. The participants do not need detailed information about the EFQM Model and the RADAR-logic and only have to answer the questions from their organisation's point of view.

The workshop's objective is to get a better common understanding of the entire organisation, its environment, its long-term goals and its current activities, performance and results using 'leading reflexion'. This should reveal the core interrelations and action-impact cycles on which the EFQM Model and the RADAR-logic are focussing on. Based on this analysis the core improvement areas are de-fined in relation to the existing gaps /5/.

The QuickScan workshop consists of the following steps /6/:

1. Recording the expectations of the organisation's stakeholders.
2. Questioning the existing key data and indicators and visualising them in Table form.
3. Resuming and recording in written form all used tools, instruments, programs, projects and procedures.  
Making transparent the essential decision criteria used by the organisation.
4. Working out and prioritising relevant areas for improvement.
5. Working out a catalogue of measures with explicit responsibilities and deadlines.

It is recommended to document the participants' answers in standardised Tables (see Tables 1 to 5).

On approx. 20 flipchart pages a transparent written statement of the organisation's current situation is depicted with its essential interrelations and interconnections. This image describes what is both existent and working well. Not explicit are the missing or underperforming procedures. Deficits affecting the action-impact cycles and non consistent interrelations as well as weak points with possible improvement areas are not a main theme of this assessment. Only after a rough drawing of the current situation of the organisation following the model criteria it makes sense to elaborate actions and improvement activities for the discovered gaps (e.g. missing integration of the applied instruments, missing correlation between key results and existing activities, etc.).

## 3 QUICKSCAN EVALUATION

During the development of the QuickScan the practical application of this methodology was performed and evaluated within a survey including 60 SME's from different industries, e.g. service and production and maintenance companies, hospitals and education institutes /7/.

## 4 QUICKSCAN PROCEDURE

The following is a description of an ideal type of QuickScan. It summarises the most important five steps and indicates the relevant fields of analysis and questions. The example 'managing customer relation' concretises the single steps in order to clarify the QuickScan's application and results.

The QuickScan begins with a short description of the workshop's procedure and its objective followed by the definition of the relevant stakeholders of the organisation.

### 4.1 Step 1: Stakeholders and their expectations

The purpose of this step is to clarify the relevant groups of employees, customers, partners/suppliers, shareholders/owners and society which are interested in the organisation respectively its performance and which are actively looked after by the organisation.

The specific expectations and demands of every group are recorded. Relevant information about the respective stakeholders can be gained from inter-views or from workshop protocols. This step seems to be very simple at first sight. The experiences from previous QuickScans show that it is not always possible to gain a homogenous concept about the identification and classification of the stakeholders as well as of their expectations.

#### Example: customer group expectations

Table 1 shows exemplary two customer groups, their expectations and requests.

Table 1 - Example: Customer groups and their expectations.

Customers/ Customer groups	Expectations
Common expectations of both customer groups	<ul style="list-style-type: none"> <li>• High quality</li> <li>• Adherence to delivery date</li> <li>• Short delivery time</li> <li>• Availability</li> <li>• Low prices</li> <li>• Product innovations</li> <li>• Technical support</li> <li>• Smooth processing</li> </ul>
Final customer	<ul style="list-style-type: none"> <li>• No failures</li> <li>• Specific contact person</li> </ul>
Distribution partner	<ul style="list-style-type: none"> <li>• High margin</li> </ul>

At the end of this step the most important stakeholders and their core expectations are highlighted. A brief reflexion concludes step 1.

## 4.2 Step 2: Results

In this step we obtain an overview of all the key results used for the organisation's control. Back-grounds of the questioning are the result criteria of the EFQM Model: key performance indicators (monetary and non-monetary), society-related results, employee as well as customer-related results and indicators.

Therefore, it is especially important to consistently and rigorously observe the correlation with the stakeholders' expectations clarified in step 1. To obtain a closed action-impact cycle and consistent interrelations, the used key data and indicators basically have to provide information and facts about the fulfilment of the stakeholders' expectations. For the results of the EFQM Model the core RADAR-logic questions are:

- Which key indicators or results are used?
- Over how many years do these recordings date back? Is it possible to identify trends (3 years)?
- Which target values exist for the specific results? How are these targets set?
- Are there comparisons with other organisations?
- Are the results segmented (e.g. different customer groups, employee groups, products, processes, locations)?

According to the EFQM Model trends, targets, external comparisons and segmentations must exist for every indicator (see Table 2).

Table 2 – Example: Customer related results and performance indicators.

Customer results	Trends	Targets	External comparisons	Segmentation
Customer satisfaction	-	-	-	<input type="checkbox"/>
Number of new customers / year	-	-	-	<input type="checkbox"/>
Customer related performance indicators	Trends	Targets	External comparisons	Segmentation
Rate of return of the customer satisfaction	-	-	-	<input type="checkbox"/>
Delivery times	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Number of customer complaints	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
Costs of customer complaints	<input type="checkbox"/>	-	-	<input type="checkbox"/>

### Example: Customer-related results and performance indicators

In this step it has to be clarified which key results and indicators are used to evaluate customers' satisfaction and how their expectations of the organisation are fulfilled. Additionally, indirect indicators have to be recognised. Some selected results and performance indicators from the customers' point of view are represented in Table 2.

For all four result dimensions the existing key results and indicators of the organisation are listed. The participants' reflexions on the coach's questions are recorded. Referring to the customer related results and performance indicators (see Table 2) this example clarifies the improvement potential that is discovered during the QuickScan.

Because customer reviews have only been introduced recently, trends are not available, neither can these results be compared with other organisations. According to the concept of excellence and the EFQM Model, these results have to be completed as well as indicators for image and loyalty.

At this point in time we still don't discuss the indicators' relevance nor possible alternatives; these issues will be taken care of in a later stage. In the QuickScan's current phase the focus is on the representation of the current situation. A second reflexion concludes step 2.

## 4.3 Step 3: Enablers

Using the EFQM Model's five enabler criteria all kind of existing procedures, methods, tools, projects, activities, programs etc. in the organisation are collected and recorded in written form. Basically this collection takes place at the criteria level of the EFQM Model, for some areas even at the level of criterion parts question are raised.

For the enablers of the EFQM Model the RADAR-logic refers to the different approaches and demands answers to the following questions:

- Is the approach well-founded and integrated? A well-founded approach in terms of excellence means, that it is clearly justified, that implementation processes are defined and that it is oriented towards the stakeholders' expectations. An approach is integrated, if it supports the policy and strategy and is integrated reasonably with other procedures.
- Is the approach implemented systematically? An approach is implemented systematically in terms of excellence, when the implemented areas are determined clearly and realised based on a defined structure.
- Has the approach been assessed and re-viewed? An approach is assessed and reviewed in terms of excellence, when the efficiency of the approach and its deployment is measured, when the organisation learns from best practices, when potential improvement areas are identified and prioritised and when these improvement's implementation is planned.

The main idea of the RADAR-logic regarding the connection between enablers and results, is to question thoroughly the consistency of the action-impact cycles and interrelations of the organisation's key results and indicators.

### Example: Managing the customer relations

In this step it has to be clarified what the organisation undertakes to intensify its customer relation and to satisfy the customers' expectations. Some selected approaches to manage the customer relation are represented in Table 3.

Table 3 - Example: Procedures to manage customer relation.

Approach	Founded & Integrated	Systematic & Structured	Assessed & Reviewed
Customer reviews	<input type="checkbox"/>	-	-
Management of customer complaints	<input type="checkbox"/>	<input type="checkbox"/>	-
Sales conferences	<input type="checkbox"/>	-	-
Training offers for customers	<input type="checkbox"/>	-	-
Seminar offers for customers	<input type="checkbox"/>	-	-
Engineer and customer meetings	<input type="checkbox"/>	-	-

The existing approaches of the organisation are recorded for all enabler dimensions. According to the procedure to manage the customer relations (Table 3) this example points out the improvement potential that appears during the QuickScan. There are a number of tools/procedures to manage the customer relations which are neither implemented systematically nor its effectiveness measured. At this point - like for the results - their relevance and possible alternatives are not yet discussed; these topics will be evaluated at a later step. At the current QuickScan phase the analysis is focused on the current situation.

#### Example: Policy and Strategy - Closer to the customer

After the managers' representation of their entire organisation with its relevant key data and activities it is useful to mention strategic contents and objectives.

This step should clarify the strategies and the organisation's objectives as well as the key processes to achieve the named strategies. As an example for the organisational control cycle the strategy 'closer to the customer' will be described (Table 4).

This table has to be worked out for all the identifiable/defined strategies of the organisation.

Table 4 - Example: Strategy - Closer to the customer.

Key process	Owner	Stakeholder	Key indicators
Intensify customer relation	sales director	Customer Employees Owner	<ul style="list-style-type: none"> <li>Customer satisfaction</li> <li>Sales from current customers</li> <li>Offer realisation rate</li> <li>Number of new customers</li> <li>Sales from new customers</li> </ul>

After having created this table the coach has to focus the attention back to the key indicators and results of step 2. These indicators coincide ideally with the identified indicators of the key processes or can be derived from them. Now the organisation's interrelations are drawn completely and the correlation between enabler and result criteria is transparent.

If there are serious inconsistencies it is up to the coach to reveal them.

In the example 'managing customer relation' there is one main indicator for the key process 'intensify customer relation' (offer realisation rate) that does not appear in the customer related results and indicators (see Table 2). Therefore this indicator which is already measured within the organisation will be integrated in the reporting system. The customer satisfaction and the number of new customers per year are already recorded (see Table 2) and used in the reporting system; the sales indicators (old and new customers) are related to the results and also integrated in the reporting system.

#### Results

Stakeholder results	Trends (3 years)	Targets	Benchmarks	Segmentation
				4.

#### Expectations

Stakeholders, -groups	Expectations

#### Approaches

Approaches	Founded	Systematically	Assessed & Reviewed

#### Strategies

#### Key processes

Key processes	Owner	Stakeholders	Results

Figure 2 - Correlations analysed during the QuickScan

The results have a strong correlation in this concrete example. But large gaps in the organisational control cycle exist due to missing procedures to achieve the

strategy 'closer to the customer'. Therefore, the organisation implements a program that analyses all approaches and activities that imply direct customer

relations and elaborates measures to intensify them. At the same time the sales director is charged to work out new concepts for the customer handling.

Furthermore a very important reflexion potential over interrelations and action-impact cycles is developed through the comparison of the enabler and result dimensions. Figure 2 shows exemplarily correlations questioned during the QuickScan. To go more into details the following questions (questions are related to Figure 2) can help to analyse the interrelations with the objectives to find out inconsistencies, derive improvement areas and to close the action-impact cycles.

1. (How far) Can the results give information about the expectations and their changes?
2. (How far) Is the approach verified by results?
3. (How far) Is the approach derived from the expectations?
4. Company's organisational control cycle:
  - On which results is the strategy based?
  - On which assumptions is the strategy based?
  - Which key processes implement the strategy?
  - Are the key processes verified by results?
5. Is the approach derived from the strategy?

A basic principle in the application of the QuickScan is to make interdependencies (e.g. between processes) transparent. The step 3 is concluded by a reflexion about the action-impact cycles and the organisation's interrelations.

#### 4.4 Step 4: Determination of the main decision factors

Before expressing specific areas for improvement it is important to clarify how the organisation takes in principal decisions on improvements, projects etc. The required decision factors address practical and understandable aspects to set priorities in Step 5 and must not be theoretical or of higher value. Example: Determining decision factors

1. Realise areas for improvements that lead to sustainable improvement.
2. Realise areas for improvements which can be done during the day-to-day business with little supplementary effort.
3. Realise areas for improvements that need external consulting.

#### 4.5 Step 5: Listing and prioritising areas for improvements and improvement proposals

In this step the participants are asked to mention relevant areas for improvement and improvement ideas from their organisational and overall point of view on moderation cards.

After clustering these suggestions and prioritising the improvement clusters using the decision factors determined in step 4 it is verified whether the improvement clusters coincide with those worked out during the QuickScan.

**Example: Prioritisation and measures to manage customer relation**

It is necessary to execute Step 4 to achieve traceable and prioritised improvement proposals that are

transparent for the employees. Finally a rough planning of the improvement clusters regarding deadlines and responsibilities takes place and finally a final reflexion completes the QuickScan.

Table 5: – Example. Improvement proposals and prioritisation.

N o.	Prio rity	Measure proposal	Respons.	Deadline
1	2	Add key indicator „Offer realisation rate“ into the reporting system	Head of controlling	date
2	1	Analyse current customer activities and develop proposals for intensification	Sales director	date
3	2/3	Develop new concepts for customer relation	Sales director	date

## 5 SUMMARY

Within the one day lasting coached workshop with the management of the organisation the whole organisation is mapped into the EFQM Excellence model but no scoring is performed. Interestingly, applying this tool to SME it turned out, that also business units of big companies, holdings or hospitals are eager to perform an efficient one day lasting QuickScan to get to a common understanding within the management of these organisations. If you use the QuickScan also to determine the excellence level, you need at least two full days for the workshop and also two experienced assessors.

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