Welcome

Development, potentials and limitations of QM-Standards
- Where is the journey going?

Dipl.-Ing.(FH) Olaf Stuka
Deutsche Gesellschaft für Qualität e.V.
Contents

Organisation profile of DGQ (German Society for Quality)

Development, potentials and limitations of QM-Standards
– Where is the journey going?
  🇩💻 Quality Management Systems between total control and freedom
  🇪💻 How many management systems do a company really needs?
  🇧💻 Aspects and specification of the revision ISO 9001:2015

Current status and prospect
Understanding.
Progress.
Responsibility.

DGQ – Your partner in quality
Our Organisations

DGQ

"Designing quality – developing highly-capable services"

- **DGQ Weiterbildung (Training)**: We empower people
- **DGQ Beratung (Advisory)**: We develop organisations
- **DGQ Forschung/FQS (Research)**: We generate knowledge
- **DGQ Best Practice**: We improve performance and drive innovation

DGQ e.V.
We design networks and certify personnel

Development, potentials and limitations of QM-Standards

12/03 | chart 3
## DGQ e.V. / Network

### Our Services - DGQ e.V.

### DGQ e.V. / Network

#### Claim

**We design networks**

#### Competences

- Expert network for systems and methods of quality, environmental, occupational health and safety management
- Publisher of expert journal “QZ - Qualität und Zuverlässigkeit”
- Regional, national and international networks

#### Facts & Figures

- Founded: 1952 in Frankfurt am Main
- Purpose: "Extending Quality Management"
- Members: approx. 1,000 companies, approx. 6,000 people
- 62 regional groups, 500 VA, 12,000 TN per year
- DGQ Publications: > 90 titles
- QM-related standardisation work

#### Selected Services

- Personal and corporate membership
- Regional groups: local exchange of experience
- Work in the quality community: Knowledge from practice for practice, leading opinion
- Award of the Walter Masing Prize for personal achievement in the field of quality management
DGQ e.V. / Personnel certification

<table>
<thead>
<tr>
<th>Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We certify personnel</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facts &amp; figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Approx: 6,500 DGQ and approx. 1,700 EOQ certificates each year (well over 100,000 certificates issued since establishment)</td>
</tr>
<tr>
<td>• Accredited to ISO 17024</td>
</tr>
<tr>
<td>• Certified to ISO 9001</td>
</tr>
<tr>
<td>• Recognised by and national representative of the European Organization for Quality (EOQ), Brussels</td>
</tr>
<tr>
<td>• Full Member of the International Personnel Certification Association, IPC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Development of specific, market-orientated certification programmes for people</td>
</tr>
<tr>
<td>• Development of harmonised training and certification concepts in Europe</td>
</tr>
<tr>
<td>• Recognised competence body for certification of persons</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selected services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Certification and examination of individuals</td>
</tr>
<tr>
<td>• DGQ certificates</td>
</tr>
<tr>
<td>• EOQ certificates</td>
</tr>
<tr>
<td>• Active participation in national and international standardisation activities (ISO, CASCO, DIN, EA and others)</td>
</tr>
</tbody>
</table>
DGQ Weiterbildung (Training)

<table>
<thead>
<tr>
<th>Claim</th>
<th>Competences</th>
</tr>
</thead>
</table>
| We empower people | • Target-group specific  
| | • Practice-orientated  
| | • Sector- and theme-orientated training events (e.g. CAF, Automotive ISO/TS 16949, Six Sigma)  
| | • Design and implementation of training events on all quality-relevant themes  

<table>
<thead>
<tr>
<th>Facts &amp; figures</th>
<th>Selected services</th>
</tr>
</thead>
</table>
| • Over 700 open training courses and seminars each year all over Germany  
| | • Training courses as basis for certification  
| | • More than 9,000 participants in the open training events each year  
| | • Varied range of seminars on current themes and for refreshing/extending knowledge  
| | • Long years of expertise in the organisation of customised in-house training courses for our clients  
| | • In-house training courses tailored to client requirements  
| | • Professional trainer network with experts from working practice  
| | • Learning and networking – cleverly combined  
| | • Professional study courses in cooperation with respected universities  

**Our services - DGQ Beratung**

## DGQ Beratung (Advisory)

### Claim

**We develop organisations**

### Facts & figures

- Founded in 2007
- Network with more than 40 advisors
- Around 100 client projects successfully completed to date
- More than 80 assessments of organisations with the Levels of Excellence
- Multi-sector client references from organisations of different sizes e.g. Deutsche Bank, Magna, Carl Zeiss, Polizei BW, WISAG, Klinikum Öschelbrunn, Baltic Metall, GMT

### Competences

- Systems: Solutions for development, integration and simplification of management systems
- Processes: raising productivity and quality, lowering costs
- Business Excellence: Assessment and development of organisations based on the EFQM approach

### Selected services

- DGQ Corporate Evening: Exclusive platform for chief executives with practical presentations and networking
- Potential analysis with DGQ QuickScan
- Interim management for QMRs
- Officially funded advice for reductions in material costs
DGQ Forschung / FQS e.V. (Research)

Our services - DGQ Forschung

Claim

We generate knowledge

Facts & figures

- Registered not-for-profit organisation, founded in 1989 (Forschungsgemeinschaft Qualität)
- Around 150 members: production and service companies, research institutes and establishments, individuals, associations
- >70 projects in Germany within the framework of joint industrial research
- Coordination of EU research projects since 2008
- Around EUR 1.5 million in funding (2009)

Competences

- Initiation, coordination and support of research projects on the subject of quality and quality management and associated subjects
- Generating knowledge and implementing it rapidly and consistently within business practice

Selected services

- Advice on project financing through funding
  Applying for public funding
- Finding suitable project partners
- Project management/Project coordination
- Identification of the need for research and transfer of results
### DGQ Best Practice

#### Claim

**We improve performance and drive innovation**

#### Facts & figures

- Established on 1 April 2010
- Reference data, articles, studies, best practice case studies, commissioned research, provision of experts and successful approaches to current management themes
- Clearing house for confidential information
- Strong national and international cooperation partner
- Services will be offered via DGQ-bestpractice.com website as from 2011!

#### Competences

- Knowledge-based services:
  - Professional and solution-orientated
  - Online and offline services
  - Holistic approach

#### Selected services

- Function- and sector-specific reference data, e.g. "Best Practice Performance Tool"
- Online database: "Best Practice Knowledge Center"
- Internet research and benchmarking studies
- Events, networking and provision of experts: e.g. "Best Practice Sharing" for top management
In addition to its activities in Germany, DGQ benefits from excellent international contacts in the areas of:

- Quality and environmental management
- Occupational health and safety
- Integrated management systems
- Standardisation
- Business Excellence
Quality Management Systems

between total control and freedom
1977

- Application for establishment of a TC Quality Assurance by DIN
  - ISO/TC 176 - Start of work 1980
- Significant opposition in the German economy
- Coordination of national standard activities

1987

- Publication DIN EN ISO 9001
- First certified companies
Development of QM-Standards (2)

Contents

- 20 (QS-Elements) quality system requirements (20 boxes)
- “… the supplier shall … “

Outcome

- Checklists are being prepared and ticked-off
- Auditors act as examiners
- Systems sinking in papers
- Benefits of QM are intransparent and not immediately identified

New edition 1990 and 1994 without importance
ISO 9000  Quality Management Systems
- Fundamentals and terms
replace ISO 8402 and ISO 9000-1

ISO 9001  Quality Management Systems
- Requirements
replace ISO 9001, ISO 9002, ISO 9003

ISO 9004  Quality Management Systems
- Guideline for performance improvement
replaces ISO 9004-1

ISO 19011  Guideline for audits of Quality Management Systems
and / or Environmental Management Systems
replaces ISO 10011
Development of QM-Standards (3)

2000

- Revision ISO 9001 and ISO 9004 as consistent pair
- Process orientation, benefit oriented argumentation
- Focus on customer to customer relationship
- Direct responsibility of organisations as a main principle
- Auditors act as assessors

2005

- Revision ISO 9000, fundamentals and terms

2008

- Amendment ISO 9001, without new requirements
Development of QM-Standards (4)

2011
- 1 mill. ISO 9001 certificates worldwide
- Revision
  ISO 19011, Guideline for audits of Management Systems
  A tool for all parts of Management Systems

2012
- 25 years ISO 9001

Today (in Germany)
- 120 accredited System Certification Bodys
- Unmanageable number of consultants and training courses
Benefits …

… of a consistent Quality Management System

- process overview, transparent business organisation
- process optimisation
- complete flow of information, control cycles
- feasibility of orders
- secure order processing
- continuous improvement of processes, products and corporate culture
An unfortunate reality – sometimes!

You never have enough time to do it right

- but always time to do it twice!

... or even more

BMW
ISO 9000 - Family

ISO 9004

ISO 9001

ISO 9000

ISO 19011

series
ISO 10000

TS 16949
IWA 1 - 4
TL 9000
EN 9100
22000

Automotive
int ws agr ...
Telekom
Aviation
Food

Development, potentials and limitations of QM-Standards
ISO 9000 - Family

ISO 10003 dispute resolution
ISO 10005 quality plans
ISO 10006 project
ISO 10007 configuration
ISO 10012 measurement
ISO/TR 10013 documentation
ISO/TR 10017 Statistical techn.
ISO 10014 economical
ISO 10015 training
ISO 10002 complaints
ISO 10001 code of conduct
ISO 10019 consultancy

Development, potentials and limitations of QM-Standards
How many management systems do a company really need?
Leadership and Management System

System for both determining, planning, implementing the organisational policy and the harmonized goals to be achieved.

Note:
To lead and manage an organization (enterprise, association, authority etc) the senior management uses a Leadership and Management System.

Parts of Leadership System:
- **Quality**: Part of the Leadership and Management System to ensure continuation of quality.
- **Environment**: Part of the Leadership and Management System to ensure continuation of environmental protection.
- **Finance**: Part of the Leadership and Management System to ensure continuation of economic efficiency of all activities.
- **Health and Safety**: Part of the Leadership and Management System to ensure continuation of occupational health and safety.
- **Personell**: Part of the Leadership and Management System to ensure continuation of the competences required.

Sustainability:
Ecological, economical and social component to maintain a system or a specific feature of a system.

Source: ICV-DGQ FAK Controlling+Qualität, 2011
Development, potentials and limitations of QM-Standards

Corporate task allocation

Management Strategy

Balance Sheets

Certification

Corporate Management

Finance

Quality Manager

Processes, Risk-mgt.

Methods

Methods

source: ICV-DGQ FAK Controlling+Qualität, 2011
Economically relevant quality

ISO-Definition: Degree to which a set of inherent characteristics fulfills requirements.

Quality

Entitlement to return of investment
How much do we have to pay for external services and how much will remain with us for securing the future, risk prevention, capital costs as well as producing and commercialisation of required quality?

Profile
To what extent people relate us to this quality and feel themselves unable to acquire same quality without swapping?

Liquidity
To what extent people are willing to co-operate and pay for perceived uniqueness? Are people able to afford it?

Confidence
To what extent people trust in assured quality? Does this quality stand the test of time in practice?

Uniqueness
How many comparable quality suppliers people are able to find with a similar effort?

Greediness
What is the meaning of quality to the people?

Economically relevant quality

Development, potentials and limitations of QM-Standards
Questions about the company’s markets

Do we offer the preferred education and training courses in our industry sector?

Are we the preferred supplier / service provider to our customers?

Are we the preferred customer of our supplier?

Are we the preferred option of our investors?

Are we the preferred employer for our employees?

source: ICV-DGQ FAK Controlling+Qualität, 2011
The optimal quality level enables an efficient fulfillment of customer expectation.

- One-dimensional requirements
  - articulated
  - specific
  - measureable
  - technical

- Attractive requirements
  - not expressed
  - cause delight

- Must-be requirements
  - implied
  - self-evident
  - not expressed
  - obviously

Source: Kano 1984; Berger et al. 1993
Aspects and specification of the revision ISO 9001:2015
Current use of ISO 9001

6.1 - Describe your current use of ISO 9001
(Based on 9,426 responses)

- Not a Current User: 5%
- Non-certified User: 13%
- Previously Certified User: 6%
- 3rd Party Certified User: 76%

Source: ISO 9000 User survey 2011
11.3 - What are the most important benefits of applying ISO 9001 to your organization?
(Multiple response question)

- Improved customer satisfaction: 5,886
- Standardized business processes: 5,821
- Increased management commitment: 4,125
- Effective use of data as business management tool: 4,112
- More effective management reviews: 3,975
- Improved customer communication: 3,577
- Increased supplier performance: 2,289
- It is a customer requirement: 2,262
- Improved supplier communication: 2,216
- Improved financial performance: 1,241
- Other: 354
- No benefit at all: 161

Source: ISO 9000 User survey 2011
13.2 - How would you describe the ongoing relevance of ISO 9001:2008?
(Based on 7,918 responses)

- No longer relevant: 5%
- Fine as it is: 27%
- Okay, but with enhancement: 64%
- Other: 4%

Source: ISO 9000 User survey 2011
Development, potentials and limitations of QM-Standards

Options to prefer

Option B – Revision of ISO 9001 – based on the suggestions for change given in this survey, produce one revised ISO 9001 standard, where all requirements remain equally mandatory.

Source: ISO 9000 User survey 2011
Incorporating further concepts into ISO 9001

13.3 - How important is it to incorporate the following concepts into ISO 9001?
(Based on 6,299 answers)

- Resource Management: 17% Negative, 6% Neutral, 75% Positive
- Voice of the Customer: 18% Negative, 7% Neutral, 74% Positive
- Measures (examples are performance, satisfaction, return on...): 19% Negative, 9% Neutral, 72% Positive
- Knowledge Management: 19% Negative, 9% Neutral, 72% Positive
- Integration of Risk Management: 20% Negative, 8% Neutral, 73% Positive
- Systematic problem solving and learning: 20% Negative, 7% Neutral, 73% Positive
- Self-assessment tool: 22% Negative, 7% Neutral, 71% Positive
- Strategic Planning: 24% Negative, 8% Neutral, 68% Positive
- Innovation: 24% Negative, 11% Neutral, 66% Positive
- Use of technology to develop and implement the requirements...: 26% Negative, 11% Neutral, 61% Positive
- Life Cycle Management: 27% Negative, 11% Neutral, 62% Positive
- Use of technology to run your business: 28% Negative, 10% Neutral, 61% Positive
- Financial resources of the organization: 33% Negative, 12% Neutral, 55% Positive
- Supporting Quality Tools (for example Six Sigma, Lean...): 35% Negative, 10% Neutral, 55% Positive

Source: ISO 9000 User survey 2011
Development, potentials and limitations of QM-Standards

Suggested Revision (management principles)

1. Customer Focus  →  1. Customer Focus
2. Leadership       →  2. Leadership
3. Involvement of People → 3. Competence and Engagement of People
5. System Approach to Management →  5. Improvement
7. Factual Approach to Decision Making →  7. Relationship Management
8. Mutually Beneficial Supplier Relationships

ISO/TC 176/SC2/N1042
Aspects and specification of ISO 9001:2015 (1)

High-level-structure

- generic
- specific

Scope

- System - where an organization needs to demonstrate its ability to consistently provide product that meets customer and applicable regulatory requirements

ISO 9004 level of maturity – assessment

Problem customer definition

- Health care, public service, safety
Aspects and specification of ISO 9001:2015 (2)

Problem process

- Process overview, classification
- Interaction of processes
- Process organisation might be feasible

Competence and empowerment of employees

Competence of auditors (normative answer by means of ISO 19011)

Further topics

- Risk
- Knowledge Management
- Sustainability
Current status and prospect
Current status and prospect

- In future, ISO 9001 should stay central system standard as result of its generic structure
- Internationally, only a slim majority for the revision of ISO 9001 was achieved (24 confirm, 30 revise and amend, 5 abstain)
- German position, no new requirements
- Principle of personal responsibility stood the test of time and has to be continued to develop
- A generic standard (central reference for certification) in conjunction with sector-specific amendments is a sustainable modell
Which contents was of particular importance to you?
Do you need any further information?
What is your opinion regarding the approaches described?
THANK YOU FOR YOUR ATTENTION.

Dipl.-Ing.(FH) Olaf Stuka

Deutsche Gesellschaft für Qualität e.V.
August-Schanz-Straße 21A
60433 Frankfurt am Main