BenQ mobile

Bringing Enjoyment and Quality to Life

Quality Manual

1 Introduction / Scope of applicability....2
2 About Us....3
3 Terms and definitions....4
4 QM System....5
5 Management responsibility....8
6 Resource management....11
7 Product realization....12
8 Measurement, analysis and improvement....19
9 Details on the document....23

1 Introduction / Scope of applicability

This management manual defines the framework for implementation of our quality management system. It is binding for all members of staff and all operational levels of the BenQ Mobile Group. This includes BenQ Mobile GmbH & Co. OHG as well as foreign subsidiaries, branches and representation offices belonging to the legal structure of the BenQ Mobile Holding.

This management system fulfills the requirements of ISO 9001:2000. Regular certifications confirm that our management system conforms to this standard.

For the units where conformity to additional standards is required the corresponding rules are defined in further documentations.

On request this document may be given or shown to customers.

This document is under control of BMG QM QMS. Only the online version is kept up to date. Printed versions are only for information. If you have change requests, please address the editor:

BenQ Mobile GmbH & Co. OHG
BMG QM QMS; Achim Fuchs
Südstr. 9; D-47475 Kamp-Lintfort
Tel. +49 2842 95 4272; Fax +49 2842 95 924272
eMail: Achim.Fuchs@BenQ.com

This management manual applies of 23.03.2006

Clemens J. Joos

CEO

2 About Us

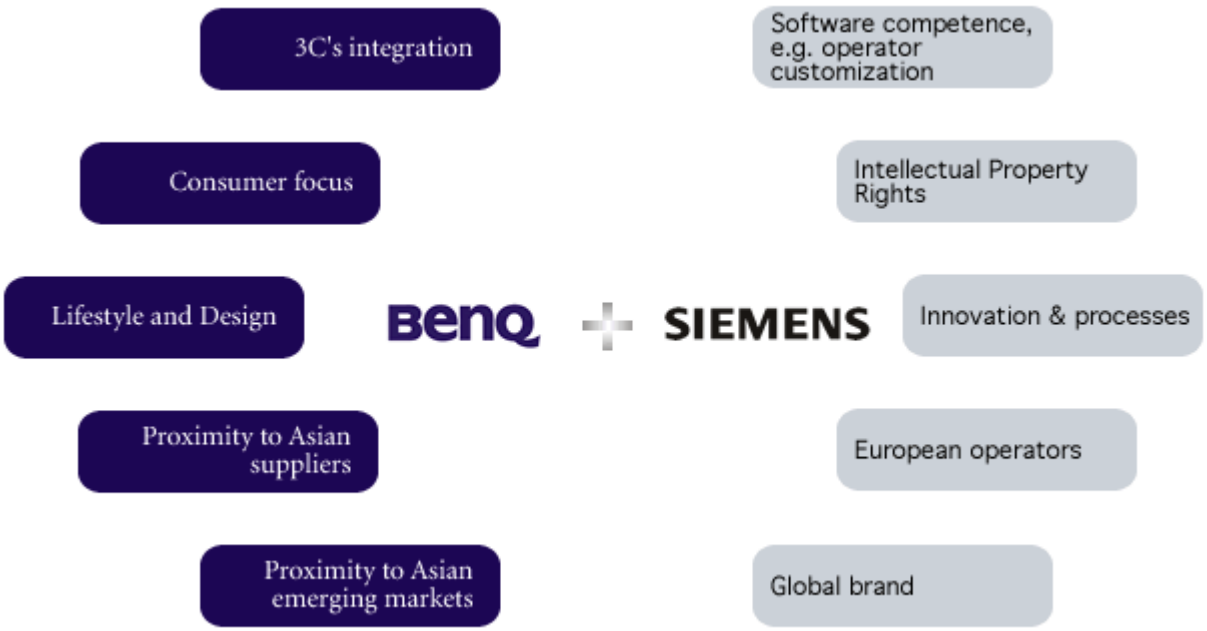
Overview

BenQ Mobile is an industry leader in wireless communication devices with a high lifestyle appeal. Headquartered in Munich (Germany), the company is one of three business divisions of BenQ Corporation and a trademark licensee of Siemens AG. Through its global sales and distribution network, BenQ Mobile serves markets in more than 70 countries around the world.

Profile

On October 1st , 2005 BenQ Corporation acquired Siemens' mobile phone business unit and set the foundation to become one of the world's leading players in the mobile phone industry. Through this acquisition, BenQ is able to combine its strong heritage in the consumer electronics business as a leading and rapidly growing manufacturer of networked digital lifestyle products, such as LCD TVs, displays, mp3 players, digital cameras, projectors, and optical storage, with Siemens' technological expertise in mobile devices. Siemens has built an excellent reputation in the market for its industrial design, product quality and the ability to customize phones to operator requirements. As a leading innovator in the 3Cs – communications, consumer electronics and computing – BenQ drives integration further and delivers solutions demanded by the new digital era.

Through a licensing agreement BenQ Mobile is able to utilize the Siemens brand as well as a combined brand for a transition period. BenQ Mobile launched the combined new brand introducing flagship products bringing together the best of both worlds. Siemens' leading position in key European and emerging Latin American markets complements BenQ's particular strength in the Asian markets in establishing BenQ Mobile as a truly global brand.



Corporation concept

The BenQ corporation concept 'Bringing enjoyment and Quality into Life' means to transmit truth, benignity and beauty in information life. This stands for the accurate expression of our customers expectations with nice and user friendly products which are practical in use.

Corporation culture

As part of the BenQ corporation BenQ Mobile will follow the corporate culture being practical and fundamental, pursuing for excellence and concerning for the society. We take from the society and we feedback to it. Live long education is provided to our employees in order to offer each BenQ Mobile person to contribute to the society. The corporate culture is ideal to pursue for truth, benignity and beauty.

Organizational structure

The BenQ Mobile organizational topics are available in the Intranet.

3 Terms and definitions

3.1 Abbreviations

BSC	=	Balanced Score Card
CM	=	Configuration Management
EBIT	=	Earnings Before Interests and Taxes
EFA	=	Entwicklung, Förderung, Anerkennung (career assessment system for managerial staff)
HW	=	Hardware
IMEI	=	Individual Mobile Equipment Identification
ISO	=	International Organization for Standardization
OEM	=	Original Equipment Manufacturer
QM	=	Quality Management
R&D	=	Research & Development
SCM	=	Supply Chain Management
SW	=	Software
TQM	=	Total Quality Management

3.2 Terms

Functional area is not related to any particular level of the corporate hierarchy. The meaning depends on the context. It refers to the interaction of a number of processes within the context of a specific level of the organization, and may be represented by one of a wide range of procedures and methods organizations (e.g. sector, department, section, project group).

Continuous improvement means process of continuous improvement and is a means of awakening and applying the abilities of all employees in the interests of improving business processes on a continual basis.

Safety targets are related to the technical characteristics of products, processes and the provision of services. Their purpose is to ensure the protection of persons, property and environment in

the sense of avoiding danger, injury, damage, unnecessary waste or consumption of resources.

Six Sigma Business philosophy and strategy which was introduced and integrated from recognized, leading world class companies. A collection of methods and tools for the improvement of business processes and the products with the target to focus the complete business performance to the customer. Originally six sigma is a statistic measurement for process ability: Six sigma means a failure rate of only 3,4 ppm – or 99,99966% output.

Unit refers to an organizational unit, such as a division, subdivision, plant or corporate office.

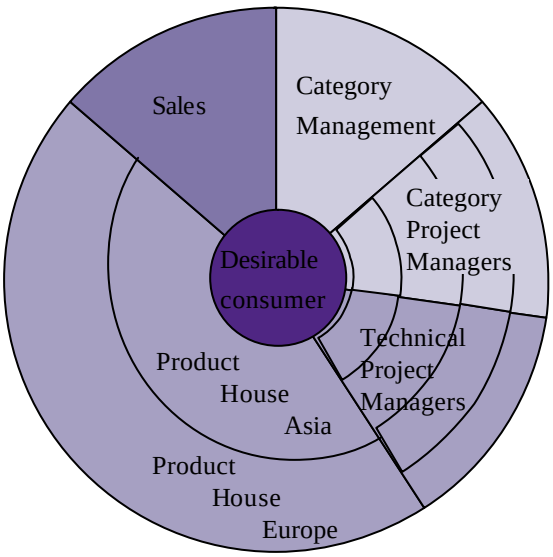
Validation Tests to determine whether an an item meets the requirements for a specific intended purpose or a specific intended application.

Verification The act of reviewing, testing, or otherwise determining and documenting whether the output meets input requirements, comparing an activity, a process, or a product with the corresponding requirements or specifications.
Note: This term is most commonly used in connection with intermediate test phases or phase-related tests.

4 QM System

4.1 General

Because the company BenQ Mobile arises from the Networking & Communication Group of BenQ corporation and from the former Siemens business line Mobile Devices the QM System was initially determined by the processes which have been developed and established in these entities. At the beginning of the business activities the corporation in the new company were organized as follows.



The Category Management fosters consumer orientation while Product Houses drive execution.

Category Management creates and communicates value propositions to end consumers. This inludes the functions Portfolio Development, Product Definition and Design as well as Product Lifecycle Management.

Product Houses act as inhouse ODM suppliers and are responsible for Product Development and Delivery under Design to Cost and Time to Market requirements. This includes Technical Product Management, R&D, Strategic Procurement and SCM.

Most of the sites brought in by BenQ were part of the Product House Asia whereas the former Siemens sites have been mainly concentrated in the Product House Europe.

Though the site in Beijing has been allocated to Product House Asia with all responsibilities the implemented processes are the same as in Product House Europe for historical reasons. Depending on products for Asia or Europe, the

respective Product House processes are applicable in Mexicali, a former BenQ site which is assigned to the plants of Product House Europe.

In order to realize synergies, standadize targets, structures KPIs and processes the Product houses will be brought together as of April 2006. Starting point for alignment of operations and simplification of structures and respective regulations is the QM System characterized by its origin in the Product Houses.

The QM system is aligned to the process approach. It is embedded in the BenQ corporation framework defined by guidelines such as those relating to organizational and supervisory duties, data protection and information security, product safety, environmental protection, technical safety, information and communication systems and others.

As described in the following chapters of the manual, the main processes and the related sub-processes identified for the provision of products that meet customers requirements are originated from this QM System level.

The QM system follows the 8 basic principles of the ISO 9000 ff standards:

- customer focus
- leadership
- involvement of people
- process approach
- system approach to management
- continual improvement
- factual approach to decision making
- mutually beneficial supplier relationship.

Based on an international world class quality management benchmarking performed by Siemens AG in 2003 reflecting rooms for improvement a subset of 9 elements as part of the basic principles mentioned above has been identified as especially important for consequent quality assurance in processes and projects. These are:

- Customer integration - regular customer interaction, consequent usage of analytical tools, professional feedback and complaint handling to achieve high customer satisfaction/retention.
- Embedded quality in processes / projects - comprehends a higher quality assurance due to standardized processes, quality gates and preventive cycles.
- Consequent management of suppliers - selection, information, development, integration, monitoring.
- Business driven quality planning - the explicit planning of goals, actions and quantitative indicators with benchmarked target values, which are all derived from critical business issues.
- Focused quality reporting - regular reporting of quality performance based on a product / process focused set of key performance indicators and standardized status reports on key projects.
- Broad qualification on quality issues - all employees need the right skill level regarding quality related topics – the need for qualification is planned by a thorough analysis of necessary quality know-how.
- Continuous improvement - team approach based on pragmatic tools with a small central coordination to engage a critical mass of people.

- Spirit by management involvement - a quality culture created by direct leadership involvement on quality issues, quality expectations setting and selective quality control within daily business.
- Control and support role of quality managers - to act both as supporters and hard controllers by being directly embedded in processes and projects.

The QM system is a living system that is going to be improved continually regarding its effectiveness. The application of powerful process management methods and tools like Six Sigma support the soundly based optimization of sequence and interaction of the processes.

4.2 Documentation of the QM-System

The documentation for the QM-system is published on the intranet, with regular updates, as a set of coordinated regulations. Different levels can be assigned corresponding to the scope of validity, as shown on principle in the following:

Level 1:

The **Quality Policy** (Chap. 5.3 in this manual) addresses all employees and defines their standing commitment **to deliver defect-free, competitive products and services to our customers on time**. A logo showing BenQ in the middle of a DMAIC cycle embedded in the sigma symbol show our orientation to the Six Sigma philosophy focusing to the benefit of our customers and our business results.

The **QM Manual** is describing the totality of the QM system. Generic views and references to the main processes and regulations that determine the means of achieving conformance of products and services and maintaining the process of continuous improvement are included.

The **Organizational Structure** and the **cross-sectional regulations** are published in form of Guidelines, Memos and Circulars in the Intranet.

Level 2:

The descriptions of processes are available on the Intranet as well as QM-Guidelines and QMS Process instructions providing requirements and regulations for execution of quality and environmental relevant measures for the realization of the ISO 9001 are at disposal on this level.

Level 3:

This level encompasses the detailed regulations at an operative level (process steps, procedures and work instructions) which, taken together with the aforementioned arrangements, make up the complete set of rules. It also includes current assignments, contracts, specifications, customer specifications, planning documents, test documents, acceptance documents, project documentation, etc.

4.3 Document and record control

Suitable regulations for control of documents are set down in respective guidelines. These include regulations regarding responsibility for creation, verification, issue, maintenance and retention as well as regarding the sequence of these activities.

The provision of comprehensive, recognizable and accessible records is well regulated in additional documents.

5 Management responsibility

5.1 Management commitment

It is one of management's executive responsibilities to carry out organizational and supervisory duties in order to ensure that statutory and equivalent requirements are met. Other management responsibilities are to emphasize the importance of customer orientation and to carry out regular reviews of the QM system.

5.2 Customer focus

The senior management levels are responsible for ensuring that customers' requirements and expectations are identified, translated into internal requirements, and carried out to the satisfaction of our customers.

All categories of management-level staff ensure the company's orientation toward its customers through personal example, mission statements, talks with employees, training and by other means.

5.3 Quality policy

Insisting the policy of "**To deliver defect-free, competitive products and services to our customers on time**" the top management promotes the construction of the management system that comp lies with ISO 9001:2000.

The methodology known as PDCA (Plan-Do-Check-Act) is basic element of our approach to continually improve the performance of our products, processes and services. Following the Total Quality Management philosophy all state of the art methods such as Six Sigma are promoted and trained to be used for soundly based minimizing of defects in products and cutting any waste of resources in our processes. The sigma sign and the DMAIC cycle clearly symbolize our TQM orientation to internal and external parties involved. The focus lies on the prevention of problems which is expressed in our PDCA Concept for "Defect-Free":

BenQ Quality Policy

To deliver Defect-free, Competitive Products and Services to our Customer on time.

明基品質政策

將零缺點且具有
競爭力的產品和服務
準時送達顧客

Preventive is better than cure.

Do the right thing right the first time.

Customers come first.

Attain to the bottom of truth.

5.4 Planning

The Executive Management of BenQ Mobile defines the business strategy of the company as a whole and the consequent concrete business targets in coordination with the Corporate Management. These targets then represent a mandatory framework.

The associated companies carry out their business activities under their own responsibility for results.

Parameters used to measure business results are, for example, EBIT, cash balance, internal rate of return, volume of orders, sales revenue, productivity, market position, customer satisfaction, product and process quality and time-to-market.

5.4.1 Target agreements

Target agreements are one of the key instruments used in management practice. They help the company to implement its strategic plans, both top-down and bottom-up, and to pursue its path toward "business excellence".

At all levels of the organization, wherever relevant, targets are agreed and coordinated in meetings such as EFA or similar rounds:

- business-related targets
  (related to factors such as sales revenues, volume of orders, market share and economic added value)
- process-related targets
  (related to factors such as time, costs and performance)
- performance-related targets
  (related to factors such as an individual employee's performance in terms of leadership and team working skills).

Achievements and progress in performance and results are discussed and assessed at annual meetings, at which the areas of responsibility and working targets are redefined for the following year and consensus is reached on relevant training and development activities.

5.4.2 Quality planning

The activities required to achieve the agreed targets are defined and monitored, along with the necessary methods, procedures, resources, assignments of responsibility and authority, and deadlines.

Changes to company policy or organization are carried out systematically and monitored, e.g. in the form of projects or programs with the accompanying activities.

Where it is deemed useful and possible, requirements of customers and suppliers are integrated in the Quality planning process.

5.5 Responsibility, Authority, and Communication

5.5.1 Responsibility and authority

The assignment of responsibility and authority to employees at all levels of the organization is defined in respective regulations.

The functions, responsibilities and inter-relationships of the organizational entities are defined in circulars, memos and guidelines. Functions and tasks are structured in organization charts and departmental lists.

The areas of responsibility and authority of individual members of staff in the units are defined by their respective superiors, for example in EFA meetings, job/function descriptions, assignments of authority and project definitions.

Other functions are assigned through written memoranda issued by Executive Management nominating representative officers in accordance with the organization.

5.5.2 Management representative

The head of the central function QM is the representative of management in charge of the evolution of our quality management system.

This person bears the functional responsibility for ensuring that adequate systematics are set up in all relevant units and that they are maintained and further developed within the context of the overall corporate strategy. QM reports directly to Executive Management. This includes the promotion of awareness of customer requirements throughout the organization.

5.5.3 Internal communication

Internal communications concerning, for instance, the processes of the QM system and their efficiency, the business situation, quality performance and the degree of the customer satisfaction, are distributed in many various ways at all different levels of the organization.

Information is disseminated through, for example, policy meetings, staff assemblies, training courses, reports, agreed targets, workshops and the regular management reviews. Supporting ways of communications are the Intranet and various print media and poster / placard activities.

5.6 Management Review

The QM system is reviewed annually, or more frequently, by senior management and assessed for long-term suitability, appropriateness and effectiveness, documented in protocols.

Inputs to the management review comprise:

- Customer feedback
- Process performance and product conformity
- Product safety
- Audit results
- Status of preventive and corrective actions
- Six Sigma activities
- Follow-up activities from previous management reviews
- Changes that could affect the QM system
- Recommendations for improvements

The senior management evaluates the operational results achieved and the extent to which agreed targets have been reached, reaches consensus on new strategic targets and action items, checks their conformity with general policy and business objectives, and evaluates the effectiveness and appropriateness of the QM system. This includes potential alignment of resources also.

6 Resource management

6.1 Provision of resources

The human resources planning is controlled by the management and ensures determination and provision of the resources needed for implementation, maintenance and improvement of the QM system in order to meet internal and external requirements and to enhance customer satisfaction.

Qualification profiles are drawn up for recruitment to existing posts. The personnel departments of the various corporate locations provide advice and support to managers seeking new recruits. They handle various aspects of human resources management through their processes and procedures.

Records of employees' qualifications are used to provide support in the assignment of duties when required.

6.2 Competence, awareness and training

Reviews of the need for development of professional skills forms a standard part of the regular employee assessment meetings. In these meetings employees and managers agree on measures for further development and prioritize these measures.

There is a wide choice of training and development schemes, including internal courses and external sources. Courses are selected on the basis of their suitability and availability, insofar as such decisions can be made in advance. The effectiveness of training courses and, where appropriate, the transfer of knowledge to other colleagues, is established in the course of discussions between management and line staff.

Records of participation in training and development activities are generally maintained by employees or the personnel department. Further records about further development measures can for example be included in lists of participants maintained by those organizing training courses, in EFA records etc.

Apart from general training courses on quality assurance and environmental protection, the promotion of awareness of personal contributions to the achievement of targets, and skills in specific quality-assurance techniques (e.g. Six Sigma), there are also courses to familiarize management-level staff with the basic concepts of quality improvement.

6.3 Infrastructure

Suitable infrastructural conditions are created to optimize the process workflow. Planning, provisioning and maintenance processes ensure the availability and security of our varied infrastructure.

The elements we include in infrastructure are:

- buildings, workspace and associated facilities
- production equipment and facilities
- information technology and communication media
- furniture and office materials
- warehouse and transport facilities
- vehicles.

6.4 Work environment

Over and above the fulfillment of statutory requirements on preventive health care and industrial safety, workplaces are designed in such a way as to motivate employees to offer their best contribution to the company's success through their ideas, knowledge and commitment.

Our concept of job design management involves an entire point of view in the working design. The concept combines many individual subjects under the common aim of optimizing human resources. Job design is an ongoing part of a manager's duties and offers opportunities in the context of their business responsibility.

Every manager is responsible for **occupational health and safety** within his or her sphere of work and control. Trained specialists in occupational health and safety are nominated and made known to the workforce. They undertake site inspections and offer support and advice.

7 Product realization

7.1 Planning of product realization

For product realization a system of harmonized processes has been introduced which covers the entire life cycle of the products. They cover the preparation, initiation and processing of business relations, including after sales service.

The product realization processes are conceived on the basis of a life-cycle model and include all activities / phases of product introduction / support and discontinuation / withdrawal from service. The process design takes account of business strategy, as a result of changes of methods and the findings of organizational investigations or as a result of the findings of audits or self-assessments. The aim of the processes is to achieve customer satisfaction through optimized market position, making use of internal synergies, the professional knowledge of partners and non-wasteful use of resources.
As output of the planning, the following are defined:

- objectives for the process and product
- necessary documentation and reporting channels
- resources, facilities and processes
- verification/validation activities and acceptance criteria.

Every process is allocated an owner (process owner), who controls the technical aspects of creating, coordinating and introducing the process including training, and releasing the process and providing support in its productive implementation.

Central departments (e.g. IT) provide support in the general design of the business processes.

7.2 Customer related processes

The customer relations processes start with the initial contact with potential customers and continue up to the final successful carrying out. A series of auxiliary process steps are progressed through, which vary according to the different kinds of business (end user business, retailer business, operator business or service) for

- the identification, analysis and decision of business opportunities
- processing of bids, including clarification of technical and commercial points

- order processing, including final acceptance, invoicing and processing of payments
- complaints management
- product-related customer care
- general customer communications, user feedback, improvement programs
- assessment of customer satisfaction, see Chapter 8 ff.

7.2.1 Determination of requirements related to the product

Customer requirements are identified in the process of market research, marketing and contract acquisition. Other customer requirements are derived from personal contracts of all kinds, established through meetings, trade fairs, conferences, technical reports, user feedback events and service reports.

They include:

- product requirements formulated by the customer, including delivery conditions and after-sales activities
- requirements not stated explicitly by the customer, which are nevertheless necessary of evident from the intended or planned use of the product (e.g. regulatory and other legal requirements dependant on target market)
- product-related obligations, including official and statutory requirements.

The process for reviewing business opportunities and for the definition of the product are used to systematically collect and analyze inputs of new requirements or innovations, with a view to reaching a decision on whether or not they are to be implemented.

Various procedures, check lists and tools are used to support the clarification, project planning and optimization of products.

7.2.2 Review of Product Requirements (Contract Review)

Before an offer is made or an order / contract is accepted, the technical and commercial details are clarified by the units responsible for implementing the order / contract. The points clarified include:

- ensuring that the requirements are complete, free of contradictions and „doable“
- identifying any divergences between the offer and the order / contract
- verifying the conditions of approval and acceptance.

The results of clarification and subsequent activities are documented, any changes made after the order / contract has been accepted are carefully checked and clarified with respect to their consequences, before being confirmed. If any such changes are accepted, the affected entities are informed of the changes.

Other applicable regulations are defined by the sales units.

7.2.3 Customer communication

Product Information:

Product information is disseminated through many channels, ranging from personal contacts in the locality of the customer (worldwide representative agents), advertising, participation in trade fairs, articles published in technical journals and conference appearances to information published on Internet sites.

Inquiries, order processing:

Customer inquiries are accepted by each regional or central sales unit and either dealt with by these units themselves or forwarded to the unit responsible.

Certain order processing tasks are delegated to the manufacturing plants.

Customer feedback, customer complaints:

Customer feedback is obtained in different ways. The spectrum covers direct contact with the customers, hotline calls, printed media and internet research. Customer feedback is seen as a very important input especially for the definition of products.

Complaints represent another level of feedback and are dealt with and monitored by a defined (documented) system of complaints management. As part of the fault analysis process, the cause and effects of detected faults are analyzed with respect to their impact on other products in the field in order to decide about respective corrective and preventive action.

7.3 Design and development

The main purpose of the development process is to provide the product specified in the development order within the required parameters (function, deadline, costs and environmental compatibility).

The development process is divided into a number of phases, each of which ends in defined working results. Product-house-oriented rules have been established for the development process. These rules ensure that

- Inputs to the processes are defined;
- the process steps are structured;
- interfaces are known and described sufficiently;
- the process results are defined;
- necessary resources are available;
- process ownership is known;
- responsibility for sub processes is defined and
- a continuous improvement process has been installed for the process.

7.3.1 Design and development planning

The highest level of design and development planning is represented by the product roadmap. Products listed in the roadmap are developed as product projects with respective planning. This concerns the project organisation with tasks, responsibilities and authorities. The planned process clearly demands the review, verification and validation of development results at specified design and development stages.

7.3.2 Design and development inputs

Inputs for a development project are derived from the product requirement specifications, which in turn are derived from customer requirements and include functional and performance requirement as well as statutory and regulatory requirements. The requirement specification includes lessons learned from previous projects and is subject to review before release.

7.3.3 Design and development outputs

Development output is documented in various ways,. The documentation contains all of the information needed for production and after-sales service. In particular, it comprises:

- specifications, software, parts lists, configuration management
- test lists, acceptance criteria
- evidence of conformance to specifications
- evidence of conformance to relevant legal requirements such as statutory regulations and official standards, including those applicable in the intended country of use
- evidence of conformance to customer requirements.

7.3.4 Design and development review

During the course of a project, planned reviews are held to verify the integrity of the development output, consistency and keeping of all requirements, and to propose corrective measures where necessary. Records are kept to document the results.

7.3.5 Design and development verification

Tests are performed to prove that the results of the development process or a development stage correspond to the defined requirements. Records are produced on the results of the tests.

7.3.6 Design and development validation

Feature-related test cases are devised and used to validate the interaction of all features or a set of upgrade features for a specific product under real-life conditions. Regression tests are performed where necessary. Records are produced on the results of the tests.

7.3.7 Control of design and development changes

Development changes run through an organized change management process, which defines rules for the approvals procedure and the implementation of changes. Changes are subject to the same quality assurance measures as new developments.

The effects of changes on any applicable conditions of approval/certifications and conformity assessments are checked.

If a change has an impact on existing contracts, the customers are informed in due time.

7.4 Purchasing

7.4.1 Purchasing process

The purchasing process is the means by which the company obtains direct or indirect materials, either tangible goods or services, from suppliers on the market that it needs to create value added.

The objects of the purchasing process are:

- Raw materials, semi-finished and finished products intended for incorporation in the company's own products or systems (e.g. modem HW/SW subsystem), destined for sale,
- Software from other vendors,
- Products produced by other manufacturers, intended for resale or rebadging (OEM products) without further processing,
- Consumables or products (including machines) required for the production process or any other process,
- Services such as programming or and kind of out-sourced activity performed under the terms of a service agreement or work performance contract.

The **purchasing process** may consist of the following sub processes or process steps:

- Purchase marketing
- Requirements planning
- Material requirement planning
- Requisition order / Purchase request
- Selection / Assessment of suppliers
- Agreement with supplier concerning product and delivery quality
- Product qualification
- Assessment of offers
- Order expediting / surveillance
- Incoming goods control / Verification of deliveries
- Evaluation of suppliers
- Incoming invoices control / Payment order
- Handling of complaints concerning the supplier.

Activities that do **not** belong to the purchasing process described include cooperative ventures and the procurement of capital (financing) and the recruitment of personnel (human resources) and patents and licenses.

7.4.2 Purchasing information

The purchasing procedures are organized in such a way to ensure that purchased product conforms to specified requirements. There are therefore rules for the following aspects of the purchasing process:

- necessary product data
- quality criteria
- necessary clauses in purchase / service agreements and work performance contracts
- rights with respect to use, ownership, warranty, issue of licenses
- selection of suppliers
- evaluation of suppliers, including feedback to primary contractors based on analysis of their performance data
- risk management
- incoming goods inspection.

These rules are defined by:

- the computer programs employed and their interactive controls
- purchase manual
- procedure guidelines and rules

7.4.3 Verification of purchased product

A quality plan is a basic part of the qualification process for supplies. All necessary activities for ensuring that purchased goods meet the specified requirements are fixed in the material specific quality plan. Incoming goods inspections as one possible form of quality measures are controlled by the IT-systems that are used for material management.

7.5 Production and service provision

7.5.1 Control of production and service provision

During the process engineering phase, the workflows and activities that make up the production process are planned and defined in process flow descriptions, control plans, instructions and procedures. Other factors taken into account in process design, in addition to the technical and cost requirements, are:

- protection of the environment and non-wasteful use of natural resources and
- regulations concerning occupational health and safety.

The process qualification part of the process engineering phase ensures that:

- working assignments are available
- suitable plant and equipment is available for production, and a maintenance plan has been defined
- test equipment is available
- monitoring activities including release and delivery have been organized.

Process qualification is repeated in connection with any significant changes to the process, in order to guarantee its level of quality.

7.5.2 Validation of processes for production and service provision

All processes must undergo thorough validation before being released for productive use. For such processes where the working results cannot be tested directly, a suitable supervision process will be established to ensure that the process is run under control in an operative environment.

During the introductory phase of new / modified workflows, their suitability and the integrity of their databases are ensured by means of pilot projects or by running them in parallel with the old workflow.

After every significant change in a workflow (e.g. new personnel, new machines or new technology) the first completed products or services are subject to a critical examination.

7.5.3 Identification and traceability

All marketed products – hardware, software, accessories and documentation – have code numbers. The code numbers enable a product to be identified, traced throughout its process of realization (in special frames) and allocated to the relevant manufacturing cycles and documentation. A CM system is used where necessary.

The main products – mobile phones – have individual mobile equipment identification numbers (IMEI). The IMEI can be used for enhanced tracing purposes. Therefore additional information is linked to the IMEI in a own database system.

7.5.4 Customer property

Customer supplied product is an exceptional case. Because there are so many variations, and consequent responsibilities and duties, the use of customer supplied products is governed by separate agreements on a case-by-case basis.

Customer supplied products are treated in the same way as other received goods on arrival, and checked with respect to identification, integrity and lack of damage. If no special treatment has been agreed, the department to which the product has been consigned takes over the responsibility for due care and attention with respect to its identification, storage, handling and partial compliance with the contract. Records must be kept of any loss, damage or unsuitability for use of customer supplied product, and reported immediately to the customer or the customer's representative.

7.5.5 Preservation of product

Products and materials are treated in accordance with specified requirements. The guidelines on the handling of electrostatic-sensitive components are observed for electronic products.

The correct storage of products and materials prevents deterioration and damage. The appropriate requirements concerning storage life and environmental conditions are complied with. There are documented procedures stipulating methods for authorizing receipt and the dispatch to and from storage areas. Appropriate storeroom inspections are used to assess the age and lack of deterioration of goods that have been placed in storage.

Suitable packaging is defined and fixed on the basis of the customer's request, the product, and on conditions of transport or intermediate storage. Packaging material is specified and dictated. Packaging units are marked with information on the content, type, and date. The packaging process is qualified and monitored to the necessary extent.

The responsibility for the handling of shipment lies with the persons charged with this activity in-house or at the supplier (supply center). The extent of responsibility of shipments is defined through appropriate means (e.g. contracts). Responsibility for transport procedures lies with the qualified transport company employed.

By choosing the appropriate means of transport, and suitable processes and companies, it is ensured that consignments are delivered on time and that they reach their destination complete, undamaged, and accompanied by the right documents.

7.6 Control of monitoring and measuring devices

The responsibility for inspection, measuring and test equipment used in the product realization and support process lies with the department in which it is used (Development, Production, Service) and is taken according to respective guidelines.

The use of inspection, measuring and test equipment is controlled on a product-/process-specific basis. Equipment intended for use in the verification/validation of conformance to defined quality and environmental requirements is identified and marked, e.g. with a calibration label. It is subject to an inspection procedure that ensures the equipment's continued suitability for such purposes. The method of calibration and/or inspection and the frequency of such activities varies according to the process, device or application. The equipment's operability is tested before it is put into service.

Inspection, measuring and test equipment requiring calibration that is not in use is stored in such a way that its status is evident, and it cannot be used inadvertently without undergoing verification/validation of its fitness for use in quality measurements. All inspection, measuring and test equipment that is not subject to calibration is clearly identified as such.

8 Measurement, analysis and improvement

8.1 General

Test and monitoring activities are planned and documented. They range from defined milestones and baselines in processes to product- and project-specific monitoring processes and tests designed to ensure the conformity of work results.

The results of such activities are documented in the form of test records or records verifying the effectiveness of the QM system and they provide input to regular data analysis programs for the improvement of product and process quality.

Prior to application of any specific statistical method, it is analyzed to determine whether it is acceptable technically and economically, and fit for the purpose, and whether the right conditions for its application are fulfilled.

Where necessary, staff receives education in the use of statistical methods, e.g. Six Sigma training courses.

Information on customer satisfaction and the in-service performance of our products are important parameters in the external feedback cycle on the effectiveness of the QM system.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

Levels of customer satisfaction / loyalty are determined in different ways. The results of primary surveys are supplemented by information from the hotline, complaints management, from user groups or discussions with customers, from publications in trade journals or from other more detailed investigations. The information concerns our products as well as our after sales service.

8.2.2 Internal audit

The efficiency and effectiveness of the QM system and its fitness of purpose in respect of existing and future requirements are monitored at regular intervals and assessed for potential improvements.

The classical method is **audits**, planned on an annual basis. All main elements and the procedure are defined, including the qualifications and impartiality of auditors, planning, the execution and follow-up of audits, agreement and monitoring of subsequent actions, external audits and audits carried out using alternative techniques.

Site inspections in connection with environmental protection are carried out under the supervision of the environmental protection officer.

8.2.3 Monitoring and measurement of processes

Criteria and characteristics are assigned to processes to enable them to be kept continuously under control and to monitor their conformity with environmental targets or their environmental impact – where appropriate. They also serve as a basis for improving the effectiveness of the processes.

Comparative analysis of such criteria / characteristics is an important control factor in the evaluation of the QM system. Process criteria of relevance to business activities are recorded, for example, in BSCs.

8.2.4 Monitoring and measurement of product

At suitable points in the product realization process, tests / metrics are planned to provide evidence of conformity to requirements of products, software and services. They are documented and controlled in product-, project-, process- or customer-specific documents and in test instructions.

All materials, semi-finished products or other products or services purchased from external suppliers are verified in accordance with test instructions. The type of test or verification/validation, its scope and the place at which it is performed, is controlled as a function of its significance, the supplier's quality performance and the quality history.

Test results are treated as quality records, and documented and retained in accordance with the corresponding rules. They also form the basis for the issue of declarations of conformity and other regulatory and voluntary declarations such as GCF. Records are kept on the person responsible for release and, if necessary, the test station or test configuration.

Test records for hardware contain information on product identification, number of tested units, and the number and severity of faults detected.

Test records for software contain an analysis of the test results, notes on conformance with the expected results, and a problem report on nonconforming parts.

Prior to delivery, checks are performed - where appropriate - on packaging, marking, accessories package and quantity, in accordance with the test instructions.

Investigations on Returned units from the field are performed. Appropriate data is collected and analyzed in order to identify and implement improvement potentials. The collection of field data on the performance of our products, including product monitoring with respect to safety, is also organized via the hotline, the repair centers attached to the manufacturing plants and via the service units, in collaboration with their counterparts in local BenQ mobile companies.

8.3 Control of nonconforming product

Control of nonconforming products prevents its unintended use or delivery. Nonconformance product is marked, segregated and repaired or replaced in accordance with work instructions. The methods used to clear faults (product repair) and perform tests are identical or equivalent to those used during product manufacturing. If a product cannot be repaired, it is discarded and disposed of in an environmentally compatible manner.

8.4 Analysis of data

Data obtained from monitoring and testing activities and other systematic sources are regularly used to obtain detailed information on the effectiveness of the QM system, for example, and to recognize trends and identify and evaluate potential areas of improvement.

This type of information usually includes data on:

- customer satisfaction / dissatisfaction
- fulfillment of customer demands
- statistics and trends in processes, products, and various services
- degree of achieving targets
- results of assessments
- supplier-specific statistics
- environmental statistics.

8.5 Improvement

8.5.1 Continual improvement

To support effectiveness and success in the global competition, the Managing Board has inaugurated top-down activities with wide-scale quality initiatives.

These initiatives are a seamless continuation of many earlier systematic approaches, of many types, which at different levels and with different scope are designed to work towards the planned objective or identifying and exploiting potential for improvement (e.g. „quality teams“, „***top+***-program“). They include:

- agreed targets, environmental program (where appropriate)
- productivity and benchmark programs
- 6-Sigma programs
- audits, internal audits and alternative auditing techniques (workshops, self-assessments ...)
- innovation initiatives
- suggestion schemes
- customer and employee surveys
- staff meetings and career development meetings, sometimes linked with incentive programs

The main focus of the improvements program is on:

- customer satisfaction
- product quality (functionality, reliability)
- processes, tools and methods
- market position and cost-effectiveness.

8.5.2 Corrective and preventive action

Corrective action is understood as action taken to rectify the causes of a **detected** nonconformance or another undesired situation.

Preventive action is understood as action taken to rectify the causes of a **potential** nonconformance or another undesired situation.

As part of the process of continuous improvement, preventive action should be taken – wherever meaningful and possible – to detect and eliminate or minimize potential weak points and errors or their reoccurrence must be prevented.

The initiation of **preventive action** results of systematic analysis during planning of products and processes or in the course of handling business projects.

Risk management is implemented at a number of levels, including precautions against financial or technical risks in contracts / products / projects.

The regulations for corrective and preventive action are defined in guidelines and rules.

9 Details on the document

9.1 History of changes and approvals

Issue	Date	Editor	Department	Comments on changes
0.1	Sep. 05	Achim Fuchs Joerg Schneider	BMGQM QMS	Creation based on BenQ 'Manual of Quality' and Siemens ICM 'TQM- Handbook'
0.2	Sep. 05	Achim Fuchs	BMGQM QMS	Insert comments of QMS internal review
0.3	Oct. 05	Achim Fuchs	BMGQM QMS	Document is ready for review with different stakeholders in order to discuss open points and to integrate feedback
0.4	Oct. 05	Achim Fuchs	BMGQM QMS	Addition 9 elements in chap. 4.1
0.5	Nov. 05	Joerg Schneider	BMGQM QMS	Integration of review results
0.6	Dec. 05	Joerg Schneider	BMGQM QMS	Separation of appendixes
0.7	Mar. 06	Achim Fuchs	BMGQM QMS	Integration of further review results
0.8	Mar. 06	Achim Fuchs	BMGQM QMS	Consideration brand launch Consideration announcements PHE+PHA = PH

9.2 Participants of reviews

Issue 0.4

Function / Division	Org. entity	Name
Corporate Quality Management	BMGQM	Mr. Alexander Fillers
Quality Management / PHA	WQ0	Mr. Victor Chang
Quality Management / PHE	BMG PHE SCM QM	Mr. Ralf Amann

9.3 Reference

Document	Content of the document
CQM-CDR-1-*-E-A1	Correspondence table between ISO9001:2000 and quality system
CQM-CDR-1-*-E-A2	Quality Control Flow Chart for Product House Asia
CQM-CDR-1-*-E-A3	Project Flow Chart for Product House Europe