# Quality Management System

I approve the following

LEPL Georgian Technical University

Rector / Chancellor_____

__. __. 2022

## Quality Manual

GTU-MA-01

Copy No. ___

LEPL Georgian Technical University
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# 1 Scope

## 1.1 General provisions

The present document is the general guidline for the Quality System at LEPL Georgian Technical University, developed according to the requirement of the international Quality Management Standard ISO 9001-2015.

The numbering and title of the paragraphs in the Manual are consistent with the 2015 edition of the above-mentioned Standard, and the content and philosophy are fully based on the principles of the Standard.

The philosophy is based on the Plan-Do-Check-Act Quality Management methodology.

The goal of this guidline is to:

- Define and describe the processes of the University's Quality Management System (QMS) and their interrelationships, in order to ensure high and stable quality of the services provided;
- Demonstrate the ability to produce services with stable quality in accordance with the requirements of the user and normative documentation.
- This Manual is the first level document of the QMS and one of the main bases for the development of all other QMS documents. (please refer to the Annex 1)

## 1.2 Application

This document provides a general description of Quality Management in accordance with the requirements of the international standard ISO 9001-2015. The requirements and provisions of the Manual are mandatory in the process of development, implementation, maintenance, stable operation and continuous improvement of the QMS.

The developed Quality Manual is approved by the Rector and comes into force with the relevant order. Registration of the Manual and its amendments carried out in accordance with the Document Management Procedure. The requirements of this Manual are mandatory and apply to all university processes included in the QMS.

# 2 LEPL Georgian Technical University - presentation of the organization

## 2.1 Presentation of the organization

Legal Entity under Public Law – Georgian Technical University (hereinafter – the University) is an autonomous institution, the main goal of which is to perform higher educational activities and scientific researches, implementing educational programs of all three levels of academic higher education, professional educational programs, an educational program for training in the Georgian language, continuous education and other educational programs.

## 2.2 ადგილმდებარეობა

Legal address of LEPL Georgian Technical University is as follows:

Kostava ave. 77, Tbilisi, 0171, Georgia

# 3 References

The following documents are applied while drawing up this Manual:

- ISO 9001-2015 International Standard for Management System
- ISO 9000-2015 International Standard for Management System, terms and definitions.

In case of undated reference of the document mentioned in the text, the last edition of the specified document is applied.

# 4 Terms and definitions

The definitions of the terms related to the Quality System are provided in accordance to the international Standard ISO 9000-2015:

**Audit** - A systematic, independent and documented verification process of meeting the audit criteria and objectively assessing their quality

**Audit criteria** - A set of policies, requirements, methods, rules, etc., applied as a benchmark.

**Record** - A document describing the results achieved or the actions taken.

**Document** - Information carrier

**Infrastructure** - A combination of buildings, equipment, communications and related services.

**Competence** - A person's proven ability to apply knowledge and skills.

**Correcting action** - Action to eliminate the reason of the non-conformity

**Supplier** - The person (legal or natural) supplying the product and/or products.

**User** - The person (legal or natural) receiving the product and/or products.

**Customer satisfaction** - The customer's perception that his/her requirements regarding the quality of service are met.

**Requirement** - A stated necessity that is mandatory.

**Preventive Action** - Preliminary actions to prevent any undesirable event (non-conformity).

**Process** - A set of interdependent actions transforming the "input" into the "output".

**Product** - The result of the process.

**Non-compliance** - Non-fulfillment of the request

**System** - A set of interconnected elements

**Validation** - Confirmation through objective evidence that the requirements for a specific intended application or use have been met.

**Defect** - A gross, irreparable discrepancy.

**Quality** - A set of service characteristics, which is determined by their ability to satisfy various needs of people. Quality is determined by the extent to which the product complies with standards, contracts, customer requirements and conditions.

**Quality Management System** – A Management System intended for Quality Assurance of processes and organization.

**QMS** – Quality Management System

**QM** – Quality Manual.

# 5 Quality Management System

## 5.1 General requirements

The University plans, implements, documents and maintains the QMS in working condition. In addition, it constantly improves its results in accordance with the requirements of the ISO 9001-2015 QMS Standard.

The University undertakes to:

- Define and implement processes necessary for the Management System;
- Determine the sequence and interrelationship of the QMS processes, in order to ensure the stable Quality of the provided Services;
- Determine the criteria and methods of these processes, to ensure their implementation and management;
- Ensure timely availability of resources and information for the implementation of these processes and their monitoring;
- Decide on the necessary measures for the implementation of the planned results and their continuous improvement.

QMS processes and their sequence are given in the relevant document.

The Top Management of the University has established policies and goals and implements planning in the field of Quality based on the analysis of information flows (customer requests and complaints, etc.).

In order to strictly follow the documented procedures and QMS management processes, personal responsibilities are allocated. Periodic audits and analysis of compliance of processes with documented requirements are to be planned.

The Rector controls the development, implementation and functioning of the QMS, and leads the process within his competence;

- Designated authorized person (QMS leader/Management Representative);

## 5.2 Requirements towards the documentation

### 5.2.1 General provisions

QMS documents cover as follows:

- Documented policies and goals in the field of Quality;
- Quality Manual (this document);
- Documented procedures and records in accordance with QMS Standard;
- Mandatory documents (legal, normative, technological, etc.) for effective planning of the Organizatio activities, work and management of processes.

The general structure of the documentation, the rules of its production and management are detailed in the procedure Compilation and management of documents.

### 5.2.2 ხარისხის სახელმძღვანელო

The Organization has developed, approved and maintains a Quality System covering as follows:

- Scope;
- General principles of operation of internal standards and procedures;
- Description of the relationship between the QMS processes.

### 5.2.3 Document management

QMS documents are easy to manage. Documents in the form of records have been concluded by the requirements of the Procedure - Control of records.

Document management is a process covering as follows:

- Development of the normative documents;
- Agreement of the normative documents;
- Providing identification of changes;
- Distribution;
- Ensuring the storage of the documents;
- Revision;
- Withdrawal.

### 5.2.4 Records management

The records are managed in accordance with the requirements of the procedure.

Records are protected by the following:

- By determining the authority and signing the relevant person of each record, against unauthorized access and changes;
- By approval of the standard form;
- Under the responsibility of the head of the structural subdivision the scope of which is timely filling, protection and management of relevant records.

# 6 Management responsibility

## 6.1 Obligations

The management of the University is aware of its leading role for the successful operation of QMS and its responsibility towards the User, and has established a policy in relation to quality, which is ensured in the following ways:

- By informing the personnel regarding the importance of meeting both user's and statutory and legal requirements;
- By providing appropriate resources (human and material);
- By systematical analysis of QMS and ensuring compliance with ISO 9001.

## 6.2 Customer orientation

The Organization management establishes conditions for the service quality, considering the effective application of all resources, for which it conducts a systematic analysis of existing and prospective customer requirements.

## 6.3 Policy in the field of quality

The development of the policy draft in the field of quality was carried out by the representative of the Top Management of the Organization. The draft requires constant monitoring in terms of its relevance to society, market, user and organization requirements.

Top Management ensures that QMS Policy:

- Be consistent with the organization's goals;
- include the obligations of compliance with the requirements of the ISO 9001 international standard and the continuous improvement of the effectiveness of the organization's QMS in accordance with the requirements of this Code;
- Be clear and understandable to the staff.

## 6.4 Planning

### 6.4.1 Objectives in the field of Quality

In order to implement the Policy, the Top Management of the Organization, together with the heads of the structural units, determines the goals in the field of Quality.

The goals correspond to:

- Policy in the field of Quality;
- Evaluation of the goals established for the field of Quality during the past period;
- Data on the evaluation of the functioning of QMS.

In order to establish the goals, the progress of their implementation and ways of solving them are discussed at the meetings. Heads of structural units submit their proposals to the Quality Manager in order to include in the draft Quality objectives. The final edition is developed at the summarizing General Meeting of the year. The agreed document is finally approved by the Rector.

### 6.4.2 Planning and improvement

In order to achieve the goals set in the field of Quality, work plans for improving the normal functioning and support of the Quality System are developed at the University, which are approved by the Rector.

The current control of the execution of the plans is carried out by the Management Representative.

The Top Management of the University performs an analysis of the implementation of the plans at least once a year.

## 6.5 Responsibility, authority and communication

### 6.5.1 Responsibility and authority

The general management of the University is carried out by the Rector/Chancellor, and in his absence, the person appointed by the relevant order. The Rector/Chancellor or his/her substitute is responsible for monitoring and continuous observation of the processes for the development, implementation and continuous improvement of the QMS.

***Responsibilities of management and personnel:***

The tasks, responsibilities, powers and interaction of the University staff in the field of Quality are defined as follows:

- By the provisions of structural subdivisions;
- By official (work) instructions;
- By internal standards;
- By this Manual.

General rules for developing work instructions are described in the Procedure Management of documents.

Work instructions and regulations of units will be brought to the staff by the heads of the relevant subdivisions.

Responsibilities and rights for specific positions are determined by official instructions and unit regulations.

### 6.5.2 Management Representative, Quality Management Leader

Appointed by the decision of the Rector/Chancellor and reports directly to the Rector/Chancellor. The Management Representative is responsible for:

- Coordination of work on the development, implementation and improvement of the University QMS;
- Development, implementation and management of QMS documentation;
- Development, dissemination and constant updating of the Quality Manual;
- Coordination of internal and external audit of QMS;
- Relations with external parties regarding the issues of QMS.

In order to perform the functions listed above, the Management Representative is authorized to:

- Develop, implement, control and withdraw QMS documentation in accordance with the Document Management Procedure;

- Submit a timely report to the Top Management of the University on the operation of the QMS and its improvement;

- Conduct audits and other measures aimed at ensuring the continuous improvement process of QMS.

#### 6.5.3 Internal communication

Within the framework of the University, information regarding requirements, tasks, and achievements in the field of Quality is disseminated as follows:

- In the form of electronic or printed documentation;
- Information in printed and electronic form is transmitted in accordance with the requirements of the University.

Oral information is transfered by setting a task, introducing policies and objectives, and introducing intermediate achievements.

### 6.6 Management Review

#### 6.6.1 General provisions

The University Management conducts an analysis of the planned and completed works at least once a year. The analysis is perfomed on the basis of internal and external audits, received complaints, proposals and other input data. Prepared materials will be presented to the Rector/Chancellor and the Heads of relevant Structural Units.

#### 6.6.2 Input data for analysis

- Internal and external audit analysis;
- Assessment of non-compliance and their causes;
- Analysis of the effectiveness of corrective and preventive measures;
- Fulfillment of suppliers' obligations;
- Information on the operation and improvement of the processes of QMS

#### 6.6.3 Output data for analysis

- Management solutions for QMS improvement;
- Provision of necessary resources;
- Measures taken in order to increase the working environment, qualification and motivation;
- Information regarding improving the service according to the user's requirements;
- Development and implementation of preventive and corrective measures;
- Confirmation and revision of QMS policy.

## 7 Resource management

### 7.1 Provision of resources

In accordance with the commitments and plans accepted by the university, the Management plans and ensures the formation of resources in order to fulfill the policies and goals in the field of Quality, which include as follows:

- Provision of personnel;

- Infrastructure development;
- Information support;
- Creating, maintaining and improving working conditions.

## 7.2 Human Resources

### 7.2.1 General requirements

The personnel are the most important part of QMS. The role of personnel involved in QMS is great in terms of service and compliance with needs. Therefore, the selection of personnel should be made according to the qualifications, competence, knowledge and experience that are reflected in the specific job description.

The University's staffing process is coordinated by the human resources department, which, in agreement with the Rector/Chancellor, at the request of vacancies and staffing schedules or Heads of Units, leads the process of selecting personnel and upgrading the qualifications of the existing personnel.

The HR department is responsible for training the personnel, which, in order to fulfill the mentioned obligations, interacts with all structural subdivisions of the Organization.

### 7.2.2 Staff competence, training and awareness

The University is obliged to:

- Correctly determine the compliance of staff competence with the requirements;
- Provide training of personnel to achieve the necessary competence in relation to QMS, as necessary;
- Provide awareness of the active involvement of personnel in the operation of QMS;
- Periodically take care of the preparation of labor safety requirements for personnel;
- Maintain the relevant records in order to improve the qualifications and knowledge of the personnel in working condition, in accordance with the requirements.

## 7.3 Infrastructure

In order to achieve the goals in the field of Quality, the University provides a sufficient number of means necessary for operation and creates, develops and maintains the infrastructure, which includes:

- Territory and utilities passing through it;
- Buildings and facilities;
- Other utilities, including communications;
- Computer means;
- Normative-technical documentation.

The infrastructure of the University is formed in accordance with the development of the Organization and its evaluation criteria are:

- Purposefulness of using operational means;
- Efficiency and perspective;
- Issues of labor safety and environmental protection.

Decisions on infrastructure development are made in agreement with the relevant structural subdivisions.

The infrastructure management department is responsible for the timely planning, implementation and control of maintenance and preventive works, and the information technology department is responsible for computer equipment.

### 7.4 Working environment

In order to ensure the policy requirements in the field of Quality, the University Management provides an appropriate working environment that has a positive impact on the growth and satisfaction of the staff's labor indicators, appropriate conditions are created in the organization to combine and mobilize human and material resources and characteristics, to ensure the health and safety of the staff, as well as to protect the environment.

The organization provides:

- Appropriate equipment according to the requirements of workplaces;
- Safe and harmless working conditions;
- Labor safety;
- Conducting periodic analysis of staff requirements and quality of satisfaction.

## 8 Processes

### 8.1 Procurement

#### 8.1.1 Procurement process

In accordance with the Procurement Management Procedure, the relevant units of the University carry out the following, within their competence:

- Establish requirements (specifications) for basic and auxiliary materials;
- Determine different types of service requirements.

In particular:

- Determining the need for all kinds of materials and services during the calendar year, based on various orders received from departments;
- Establishing technical requirements for auxiliary and complementary materials and services, which fully describe the ordered/to-be-ordered products (specifications, drawings, storage terms and conditions, quantity, etc.);
- Selection of suppliers, evaluation, as well as selection of potential and spare suppliers;
- Planning the work and supply of the procurement unit;
- Conclusion of agreements, with a clear indication of the technical specification and other quality characteristics of the materials and services to be provided;
- Control of all types of materials in accordance with delivery schedules;
- Control of correct storage and rational use of incoming materials.

The supplier selection process and selection criteria are described in the Procurement Procedure.

#### 8.1.2 Procurement (materials or services) information

Procurement information describes the products to be purchased and includes as follows:

- Processes and equipment required for operation;
- Personnel qualifications;
- Quality Management System.

The Organization must provide timely information regarding the supplier and the established requirements for procurements.

#### 8.1.3 Verification of the procured materials

The organization controls the procured materials and their compliance with the established requirements. In order to this, the person/department responsible for procurement conducts supplier verification based on predetermined methods and information on purchased materials.

### 8.2 Management of basic processes

#### 8.2.1 Process management control

The process is conducted in accordance with the approved normative documentation.

- Strict compliance with the requirements of normative documentation (normative acts, standards, regulations, work rules, manuals, etc.);
- With appropriate resources, including trained qualified personnel;
- Discuss the processes with the distribution of responsibilities of qualified personnel;
- By reducing the requirements of Quality Policies and Objectives to personnel;
- By forming the motivation of staff;
- With coordinated interaction of units at all levels;
- Through an objective evaluation of the obtained results, by carrying out corrective and preventive measures in necessary cases.

The main principles of process management are:

- Management of the main or auxiliary process constituent elements (documentation, technological equipment, infrastructure, personnel, etc.);
- Control of technological and documentary discipline;
- Ensuring the stability of the technological process;
- Appropriate maintenance of infrastructure, equipment.

The defining documentation for the established methodology is applied in the main process:

- Technical conditions and methodological instructions.
- Legislative acts.
- Resolutions.
- Rule of proceedings.

The responsibility for compliance with the written regulations is an obligation of the heads of the University subdivisions, the person/department responsible for Quality Control carries out control.

Management is responsible for providing the necessary resources in accordance with the requirements of this Manual.

#### 8.2.2 Identification and traceability

Identification and traceability are carried out at all stages of the process: at all stages of the main process, educational process, rule of proceedings, HR management, all major administrative units.

Identification and traceability in QMS allow the following:

- Determine the place and time of occurrence of non-compliance;
- Exclude the influence (getting) of the found inconsistency in the final result (influence in administrative or educational processes),

### 8.3 Management of technical equipment and infrastructure monitoring and measurement facilities

The application of non-certified measuring devices for measuring critical parameters from the point of view of safety and Quality is prohibited at the University.

Metrological services are performed within the scope of the contractor's competence or by internal service technical personnel.

## 9 Analysis and excellence

### 9.1 General requirements

The continuous improvement process is a complex of interrelated sub-processes, which includes as follows:

- Collecting, recording and systematizing information;
- Analyzing information, identifying problems and asking questions;
- Development and implementation of measures to solve problems;
- Measuring and analyzing the effectiveness of the implemented measures.

Information regarding identified non-compliance of Quality Processes, implemented measures and the functioning of the Organization's QMS is collected and provided to the Quality Manager by the units.

All improvement actions are subject to periodic analysis to determine their effectiveness.

### 9.2 Controls and measurements

#### 9.2.1 Internal Audit

One of the main tools for continuous improvement of QMS is an Internal Audit, which is conducted by a group of Auditors under the leadership of the Chief Auditor in accordance with the annual plan, which is approved at the beginning of the year.

Auditors should know:

- ISO 9001 and QMS documentation requirements;
- Specifics of the unit operation to be checked.

The inspection is carried out according to the preliminary plan, based on the messages sent in advance. Audit results are formed in the form of records.

### 9.2.2 Monitoring and measuring processes

The table below provides a list of the main processes of the QMS and the periodicity of their monitoring and measurements:

| Criteria | Monitoring | |
|---|---|---|
| | Form | Periodicity |
| QMS analysis and assessment | Analysis | Not less than annually |
| Timeliness and newsworthy of reflecting the changes | QMS audit | According to the audit plan |
| | Registration of incoming/outgoing mail | At arrival/sending |
| | Registration of orders and resolutions | As needed |
| - The number of non-compliance and notes with the results of the Audit;<br>- The accuracy of the Audit results. | Internal audit plan | Annually |
| | Audit results | As per approved plan |
| - Timely elimination of non-compliance | Form of non-compliance | According to the fact |
| - Providing the University with qualified personnel | Perfonnel training | Annually |
| | Perfonnel attestation | As needed |
| -Knowledge of work instructions by staff<br>- Absence of accidents by the staff while fulfilling their obligations | Development of work instructions | As needed |
| Fulfilling the conditions established by the contract | Monitoring and control of storage conditions in the warehouse | Daily |

## 9.3 Nonconformance Management

Management of non-conformities is carried out in accordance with the Procedure.

Any service personnel is obliged to inform regarding the found non-conformity to the Quality Manager, after that a single Nonconformance Form is filled, which contains all the necessary information regarding the nonconformity, its prevention, and corrective actions.

Depending on the nature of the non-conformity, the University Management makes a decision on the corrective action of the non-conforming process.

## 9.4 Data analysis

All information received is subject to analysis. The analysis is carried out at the following levels:

- In the relevant structural subdivision;
- Together with the Quality Department and Quality Management System Leader.

## 9.5 Improvement

### 9.5.1 Continuous improvement

The result of the analysis is management decisions regarding the improvement of processes and QMS.

Improvement must be documented, the implementation of the decisions made is subject to control and monitoring in terms of effectiveness and compliance.

The continuous improvement of the Organization's QMS system is carried out by the implementation of corrective and preventive measures determined as a result of the analysis of the received information.

### 9.5.2 Corrective actions

Corrective actions are carried out on detected non-conformities and include the process of determining the causes.

The general practice of implementing corrective actions is:

- Determining the reason for non-compliance;
- Non-compliance root cause analysis;
- Development of corrective actions;
- Implementation of corrective actions;
- Control and monitoring of performed actions.

### 9.5.3 Preventive actions

Preventive actions are taken to eliminate causes that may cause non-conformity.

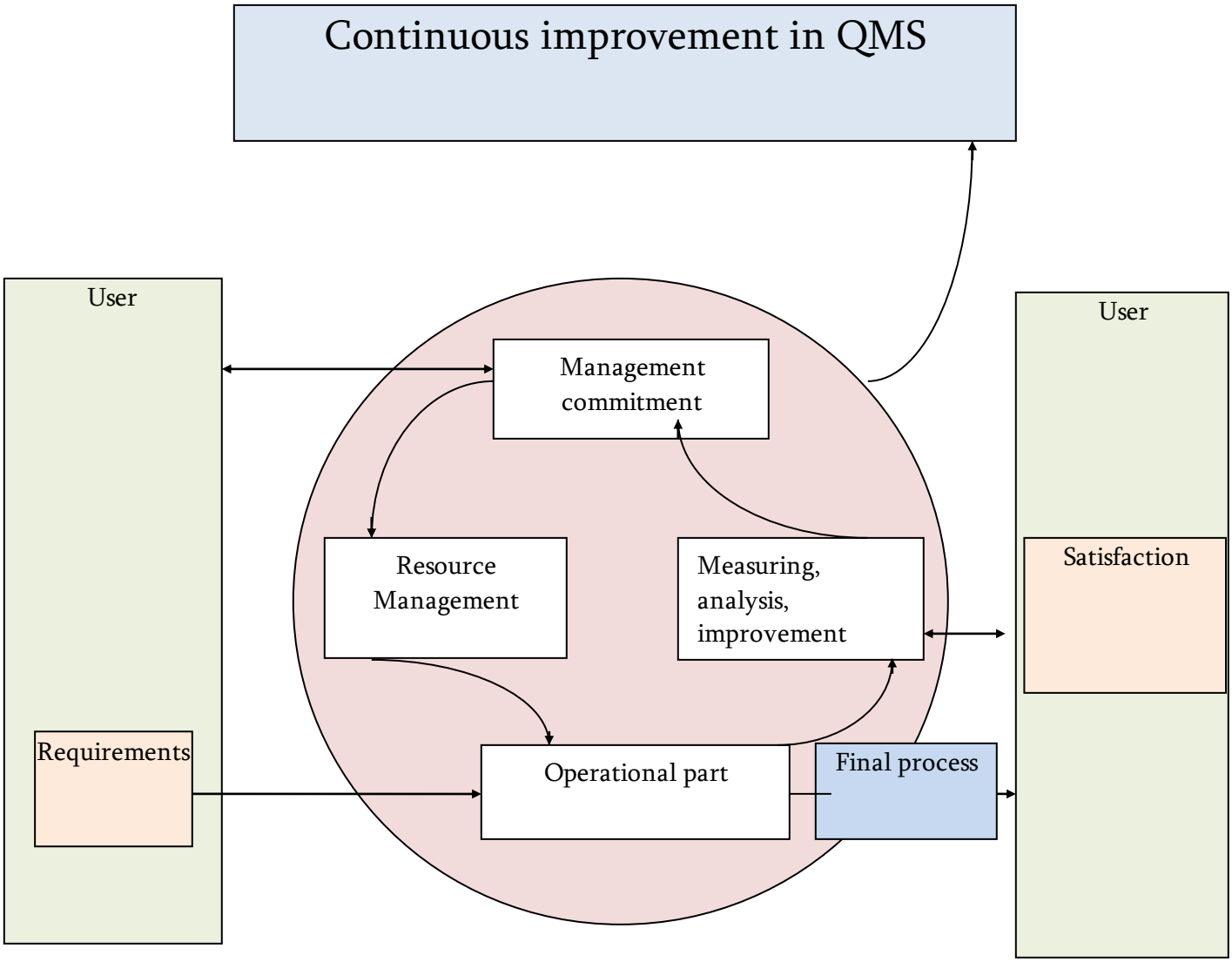
General practices for implementing preventive actions include as follows:

- Identification of potential non-conformities and their causes;
- Developing a Program of Preventive Actions;
- Implementation of preventive actions and
- Evaluation the results of its monitoring.

The description of the procedure for taking corrective and preventive actions and the monitoring results are kept in the Quality Department.

Annex 1

Continuous improvement in QMS



Agreement Sheet

| Agreed: | Date | Signature |
|---|---|---|
| Rector/Chancellor | | |
| | | |
| | | |