

Quality Management Manual for the re-use process chain

for the Central Europe Project

CERREC

Central Europe Repair & Re-use Centres and Networks

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1. INTRODUCTION

1.1. Quality Management

This manual introduces company employees and customers to the organisational structure of the Quality Management System (QMS). It is modelled on the process-oriented approach in ISO 9001:2008 and implements the requirements of this standard.

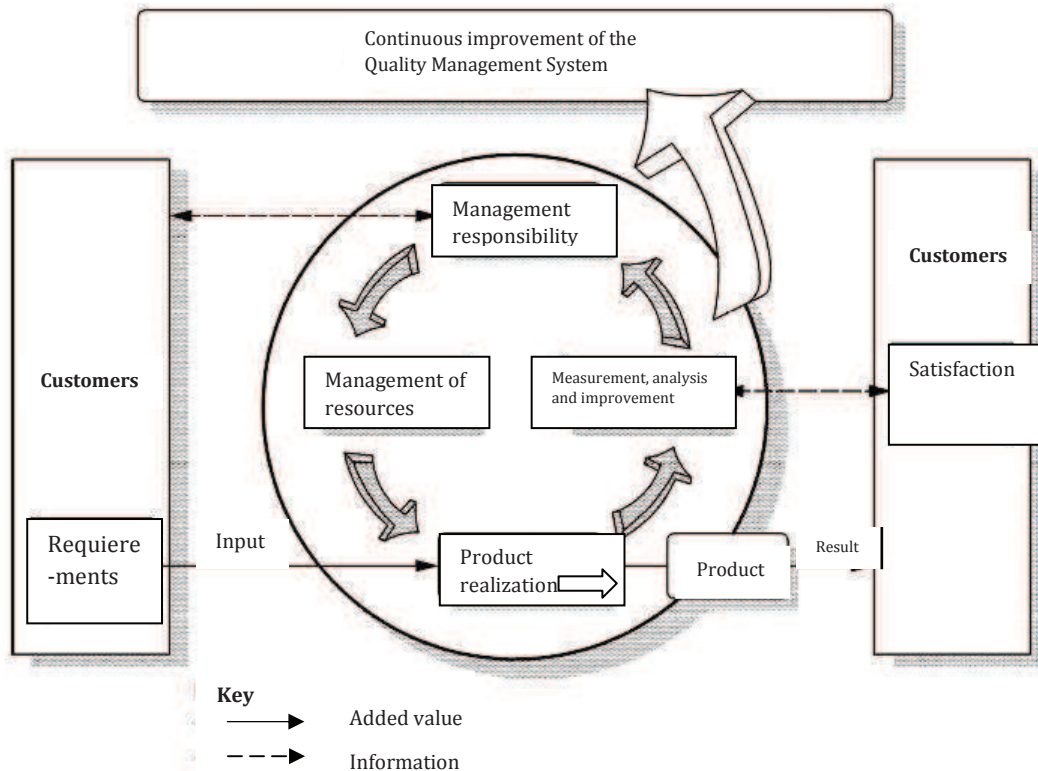


Fig. 1 - Process-oriented quality management system (source: ISO 9001:2008)

It is aimed at a company concerned with re-use and preparation for re-use of electric/electronic appliances, furniture, textiles, books, etc. As a general rule, appliances should only be accepted/purchased for processing and resale.

The aims of quality management are to implement the company's quality policy by achieving the quality standards. Milestones along the way are:

- **highly transparent workflows and regulations concerning tasks, competences and responsibilities**
- **full and comprehensible documentation of business processes and quality management activities**
- **high level of employee motivation for the assigned tasks**
- **high level of customer satisfaction with the product**

The main responsibility for the Quality Management System (QMS) lies with the executive board of the company, or rather the "senior management representative" or quality management representative (QMR) appointed by the executive board. It is his/her responsibility to enforce the planning, implementation of and compliance with the required processes and to report on the need for improvements to the QM system. In addition, he/she calls regular meetings to ensure communication between those responsible for the effectiveness of the QMS.. All employees are required to familiarise themselves with the QMS and to apply the quality documentation applicable to individual areas and processes.

1.2. Documentation

The QMS is documented in a QM manual, which lists general requirements, competences and responsibilities. Quality policy and its associated objectives are outlined and illustrated in conjunction with the CERREC project. In addition, all business processes are documented in process descriptions, supplemented in the appendix by documentary evidence, operating and testing instructions. The process descriptions define the persons responsible for the process; their tasks and the required competences are set out in the job descriptions for each individual position.

The manual serves as a(n):

- **source of information about the Quality Management System (QMS)**
- **basis for the documentation of the QMS**
- **overview and guide for employees**
- **basis for the planning of audits**

Omission:

This company is not concerned with development as specified in ISO 9001:2008. For that reason, the chapter on "Development" has been omitted from the documentation.

2. ABOUT US

This QMS has been developed as part of the European **CERREC (Central Europe Repair and Re-use Centers and Networks)** project with the remit of turning the re-use sector into a core segment of waste management. The project thus aims to minimise waste and emissions and to reduce the exploitation of natural resources, which is achieved by an extension of product life cycles. In addition, added social value will be created on the local and regional level through the creation of jobs and a narrowing of the social divide.

The aim of the project includes the creation of repair and re-use centres that are adapted to the prevailing circumstances in the participating European countries. For these centres, CERREC will provide a range of tools to enable the successful foundation and management of businesses and to set a uniform standard for re-use. These tools include a constant transfer of knowledge as well as quality guidelines. This leads to the formation of companies, the main motivation for which may be the creation of employment (qualifications, etc.), the task itself or traditional value creation.

The target groups of the project are organisations working in waste management and the social sector. CERREC helps all those involved to network on a Europe-wide basis and to produce a common European re-use policy based on a common transnational approach.

3. MISSION STATEMENT/QUALITY POLICY

3.1. Quality Policy

Quality, reliability and efficiency are the prerequisites for effective re-use and preparation for re-use in the local context and thus the basis for economically and environmentally sustainable re-use centres and networks. In this way, a sufficient flow of reusable goods can be ensured either by public collection or by private donors, making it possible to develop and expand relationships and connections with local and national stakeholders.. Successful re-use cycles thus create new sustainable jobs which in turn strengthen the social integration of re-use.

Customer satisfaction determines the success of a company. Especially in an industry that still entails a large amount of manual labour in order to increase customer acceptance, satisfaction is central. A high level of satisfaction can only be achieved if customer requirements are clearly defined and met to a large degree. For that reason, customer requirements and customer satisfaction are assessed through surveys, observations at training events, trade shows and in the company's own showroom as well as the analysis of customer complaints.

3.2. Management commitment

Company management is responsible for the definition of quality objectives and specifications that are consistent with the quality policy. They must ensure that the importance of meeting these objectives and specifications is conveyed to the employees. In addition, it is their responsibility to ensure the availability of resources for the implementation of quality management and to help with all available means to overcome obstacles.

Upon deviations from the system, managers are obliged to inform the QMR in a timely manner and if necessary to initiate a change to the defined measures.

As a final commitment, company management carries out a regular, well-documented and transparent management review.

Signature Managing Director

4. RESOURCES

It is the responsibility of management to ensure the availability of all resources that are needed to meet the quality policy, to enforce quality objectives and continuously to improve the QMS. The most important resources include personnel, infrastructure and the work environment.

Human resources

All employees must have the necessary education and training as well as skills and experience required necessary for their tasks. Required skills and quality awareness are taught in regular training sessions and instructions. The relevant line managers must ensure that employees are kept informed about changes that affect them as they happen.

Documents:	
Catalogue	Job descriptions
Form	Training schedule

Infrastructure

A clearly determined and defined infrastructure supports value creation over the long term. This infrastructure, which in addition to workspaces and associated facilities also includes information systems, requires regular maintenance and inspections.

Work environment

The legal requirements of health protection and workplace safety must be adhered to. In addition, physical as well as personnel factors are also an important part of the work environment. These can be optimised through a regular review and improvement of working practices and conditions. This review is done during regular inspection rounds with QM representative, the safety engineer (if available), the respective head of department and the respective shift managers and supervisors. Ideas and suggestions from employees are also taken into account.

Latest findings of ergonomics research have to be taken into account in the design of any process (cf. DIN EN 1005: "Safety of machinery - Human physical performance" and DIN EN ISO 10075: "Ergonomic principles related to mental workload" in their latest revision).

5. OUR PROCESSES

The processes identified in the company were recorded and documented in process descriptions. Their sequence and interactions are defined and they are continuously improved. Management ensures consistent availability of all necessary resources and information. The flow of material in the company is described in the subsequent appendices.

5.1. Management processes

Management processes must be controlled by an executive in a personnel- or task-oriented manner and therefore come under direct management remit. They include strategy and resource management, information and communication, document control and management review. Management processes thus define the strategic direction of an organisation.

Environmental analysis

In order to ensure the company's meaningful survival, company management has to direct all of its strategic decisions towards optimal stakeholder satisfaction. This requires a stakeholder analysis - and in the case of product changes also an upstream target group analysis. These two analyses reflect the company's market-based environment..

Documents:	
Process diagram	Environmental analysis
Operating procedure	Stakeholder analysis
Operating procedure	Target group analysis

5.2. Value creation processes

The core processes include all processes that serve to create value within the organisation. At the same time, they are defined by the company's core competencies. The purpose of the core processes is to meet customer requirements; they start with a customer request and end with its fulfilment. The same may also apply to a bundle of interrelated customer requests. These processes typically include procurement, production or service provision as well as sales and distribution.

Procurement:

While the calculation of capacities is the responsibility of other departments, procurement is responsible for the servicing of reported needs as quickly, simply and inexpensively as possible. This includes the organisation of the actual transports, but also the sourcing and contracting of new suppliers.

The items for re-use or preparation for re-use are obtained by operations from municipal collection, private donors and other sources, such as evictions, house clearances or the like.

Donations, or to use the legally correct term: gifts, can be made directly to the company without further legal requirements. In these cases, the last owner (usually the consumer) is also the direct supplier of the goods.

Evictions and house clearances are a service that the customer specifically requests. These are not only concerned with the preservation of appliances for re-use, but also the disposal of items that cannot be re-used. If necessary, the relevant waste disposal authority must be consulted. In consultation or cooperation with these same authorities, bulk waste disposal can be arranged during which reusable items can be selected.

The inspection of the procured products plays a very important role, because it is at then that a decision has to be made as to whether an appliance has the capability of re-use or has to be disposed of. Those in charge are therefore responsible for ensuring that requirements are met as closely as possible. They must base their decisions on economic, environmental and technical aspects. Technical aspects include the assessment as to whether the usability (the combination of function and state) can ever be restored. Economic considerations include assessing whether a market exists for an item, or if the market justifies the cost of restoration. The environmental aspects include all the environmental impacts that may arise

from this item: pollutants contained within, its energy efficiency or emissions during operations. The qualifications of assessors are to be defined product-group specifically. It must be decided on a case-by case basis whether tests will be carried out by the company's own staff or by external providers.

Documents:	
Process diagram	Procurement
Decision tree	Pre-sorting checklist
Catalogue	Category list
Process diagram	Safety and function testing

Treatment

In the treatment process, items are either re-used directly or prepared for re-use. Compliance with all legal requirements and relevant internal operating instructions is required to ensure consistently high product quality. Processes within individual processing departments are clearly divided into processing and testing steps. Each workstation must have immediate access to operating instructions and inspection plans. Forms are to be made available in sufficient quantity to the workstations that need them so that a continuous work flow is guaranteed. The responsibility for these measures lies with the respective line manager. All work sequences are subject to regular improvements, with consideration given to proposals and suggestions by employees..

Documents:	
Process diagram	Treatment

Sales and marketing

The sales strategy is determined on the basis of a marketing plan. Aspects defined in the sales strategy include the target group and the approach to new customer acquisitions, and these are compared with the company's core competences. In addition, the sales and distribution department must ensure at all times that all requirements are known and can be fulfilled.

To that end, customer requirements have to be mutually agreed and differentiated, while the company's own capabilities have to be precisely identified in order to assess whether requirements can be met. If customer requirements cannot be met, it is the responsibility of sales and distribution to initiate appropriate measures to ensure that such requirements can be met in the future.

Furthermore, pricing policy also needs to be based on customer requirements. It is in the remit of sales and distribution to harmonise the costs and customer needs.. Since the company's competitive environment is subject to constant change, marketing strategy, requirements of customers and other stakeholders as well as pricing policy should be reviewed regularly and improved if necessary.

The distribution channels must correspond to the requirements of the recognized target groups. There should be an increased focus on the realisation of online sales opportunities. Depending on the target group, online sales opportunities should be offered for selected premium product groups through to the entire product spectrum. Warranty provisions must comply with the national minimum standards and voluntary warranty regulations used to adjust to customer wishes if necessary.

Documents:

Process diagram	Retail
Catalogue	Knowledge requirements

Storage and transport

Suitable transportation and storage areas have to be identified for old, donated and refurbished items. Transport and storage have to be done in such a way as to avoid loss of quality or damages is avoided, unique identifiability is guaranteed and compliance with legal regulations is guaranteed for those items that are subject to waste status. With regard to unique identifiability, a data management system compliant with requirements of identifiability and traceability has to be in place to support warehouse management and transportation. Products are only released for storage or for sale after the successful completion of all tests and the availability of the associated documentation.

Trained personnel familiar with the necessary techniques are responsible for storage, packaging and transportation. In addition, they have to have on hand all necessary data for the calculation of storage costs and make them available to employees who need them for cost calculations. The calculation of storage costs and determination of the available storage capacity has to be product-group specific. Since storage capacity is generally scarce and expensive, options for cooperation with other companies, local authorities or other stakeholders should be explored in order to ensure the sensible use of existing capacities and resources.

All transportation and lifting equipment and all storage areas for waste are checked and marked regularly by a competent service provider.

Documents:	
Process diagram	Storage

Recycling and disposal

Since a re-use company generally does not have its own capacity for disposal, the scope of this department partially coincides with that of sales and distribution. Its responsibility is the useful sorting and separation of materials unsuitable for re-use and to find suitable buyers for these materials. If no buyer is found, then it is up to this department to ensure proper disposal.

Documents:	
Process diagram	Recycling & disposal

5.3. Support processes

Support processes support management and core processes without creating a direct customer benefit. In that way, they contribute only indirectly towards value creation and therefore may be outsourced under certain conditions. These processes include human resources, accounting, data processing, infrastructure and the control of monitoring and measuring equipment.

Human resources

HR, or the personnel department, is primarily responsible for making the right employees available for the appropriate tasks. This requires economic and social objectives to be brought into agreement. Economic objectives include the provision of personnel to deliver the service and improvement of the performance of these employees. Social objectives take into account the interests and needs of employees. It is the responsibility of HR to combine these two goals optimally.

In HR, the focus is on adapting employee skills to the respective requirements. To this end, measures need to be put into place to maintain the quality of the workforce at a consistently high level and thus to be able to implement customer requirements.

Documents:	
Operating procedure	Human resources planning
Process diagram	Personnel selection
Process diagram	Exercise sequence

Accounting

Accounting is responsible for the correct representation of all transactions within the company and to ensure compliance with all legal requirements in the preparation of reports and balance sheets. Accounting should be supported electronically, as electronic data storage makes it significantly easier at a later stage to analyse data as part of quality management.

Data management

Data management or the Data Management System (DMS) have to ensure that all information streams within the company reach their intended destinations and that each employee is able to obtain the information they require at any time without restrictions. In addition, the correct archiving of data is within the remit of data management. Upon request from other departments, data management has to prepare the data in a form that can be processed by the inquirer. The Data Management System (DMS) can be implemented in paper form (e.g. notebooks) and in digital format (e.g. Excel, Access, SQL Server ...).

Control of monitoring and measuring equipment

The organisation has to establish a schedule of inspections and tests in order to ensure that the product complies with customer requirements. The appropriate equipment has to be made available for these inspections and tests.

6. MEASUREMENT, ANALYSIS AND IMPROVEMENT

In order to guarantee the conformity of the product and the quality management system (QMS) and the continuous improvement of the effectiveness of the QMS, the executive board in cooperation with the heads of individual departments determines the methods and tools for monitoring, measuring, analysis and improvement.

Monitoring and measuring

Monitoring and measuring includes information on customer view of the company and its ability to meet customer requirements. This can be obtained through observations of customer on the sales floor and through the analysis of complaints. Furthermore, regular internal audits are to be conducted in order to determine compliance with QMS requirements. In addition, processes and the product itself have to be monitored and measured in order to demonstrate the ability to achieve planned results. These measurements must be carried out at appropriate stages of the work process in line with the planned activities.

Control of nonconforming products

If a product has been found not to meet the required specifications, care must be taken to ensure that this product is not inadvertently delivered or used. In addition, measures should be taken to identify the

source of error and eliminate it. If a defective product is discovered only after delivery, appropriate measures should be taken to minimise the damage as much as possible.

Analysis

Data need to be analysed so that the success of changes and improvements can be evaluated. For this purpose, the analysis has to provide information about customer satisfaction, fulfilment of product requirements, process and product characteristics and suppliers and more.

Improvement

A particular focus lies on the continuous improvement of QMS. Continuous does not necessarily “perpetually ongoing”, but rather "steady" and "enduring". To this end, audit results, data analysis and results of regular management reviews are considered. They are used to identify improvement potentials and also to facilitate corrective measures if any errors are found. In addition to the corrective actions for existing errors, preventive measures must be taken in order to prevent the occurrence of potential errors right from the start. The whole process and the results are to be documented.

Documents:	
Operating procedure	Audit
Process diagram	Audit process

7. APPLICABLE DOCUMENTS

It is the responsibility of management to ensure that every workstation is furnished with legible documents that are needed in order to complete the work at this workstation.

All documents must be approved by the executive board before they are released here. The latest revisions of the documents must be available at all times. If multiple versions of a document coexist, the out-of-date versions must be clearly identified as such and filed. In case of archiving problems, the oldest out-of-date versions can be destroyed.

All records have to be kept for 10 years, unless statutory provisions require a longer retention period.

Document / version	ID	Type of document	Date	Version
Resources				
Job descriptions	Ka01	Catalogue	19/02/2013	0.3
Training schedule	Fo01	Form	19/02/2013	0.2
Management processes				
Environmental analysis	Pd01	Process diagram	19/02/2013	0.3
Stakeholder analysis	Aa01	Operating procedure	19/02/2013	0.3
Target group analysis	Aa02	Operating procedure	19/02/2013	0.2
Value creation processes				
Procurement	Pd02	Process diagram	19/02/2013	0.6
Treatment	Pd03	Process diagram	19/02/2013	0.4
Retail	Pd04	Process diagram	19/02/2013	0.4
Storage	Pd05	Process diagram	19/02/2013	0.4
Recycling & disposal	Pd06	Process diagram	19/02/2013	0.4
Pre-sorting checklist	Eb01	Decision tree	19/02/2013	0.5
Safety and function testing	Pd07	Process diagram	19/02/2013	0.3
Category list	Ka02	Catalogue	19/02/2013	0.2
Knowledge requirements	Ka03	Catalogue	19/02/2013	0.2
Support processes				
Human resources planning	Aa03	Operating procedure	19/02/2013	0.2
Personnel selection	Pd08	Process diagram	19/02/2013	0.2
Training schedule	Pd09	Process diagram	19/02/2013	0.2
Measurement, analysis, improvement				
Audit	Aa04	Operating procedure	19/02/2013	0.4
Audit process	Pd10	Process diagram	19/02/2013	0.3

Foreign documents			
DIN VDE 0701-0702	No01	NORM	June 2008
DIN EN ISO 19011	No02	NORM	December 2011

8. REFERENCES

This present document is based on the following main references [in German]:

Gerhard Linß: Qualitätsmanagement für Ingenieure. München, 2011

Hans Jung: Allgemeine Betriebswirtschaftslehre. Oldenbourg, 2009

Hans Jung: Personalwirtschaft. München, 2008



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REPAIR AND RE-USE CENTRES AND NETWORKS

Job descriptions

Operating Procedure for the Central Europe Project

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Central Europe Repair & Re-use Centres and Networks



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Jobs

Designation	Managing Director	Electronics technician	Labourer	
Rank	Managing Director	Foreman	technical staff	
Superior	Owner / Executive	Head of department	Foreman	
Number	1	2	6	
Objective of the position	Management and development of all processes in the operation. Improvement and development of products. Securing suppliers and sales markets.	Inspection and repair of electrical equipment with the aim of reutilisation	Inspection and repair of furniture, textiles and books with the aim of reutilisation	
Framework for action	Free decision-making power in operations.	The employee can operate freely within their area of competence, but is bound by the instructions of their foreman.	The employee can operate freely within their area of competence, but is bound by the instructions of their foreman.	
Main tasks	<ul style="list-style-type: none"> - professional and disciplinary management of employees - development and definition of strategic operational goals - planning, management and monitoring of operational activities - management of the annual budget planning - ensuring financial control - perception of budget responsibility for the operation 	<ul style="list-style-type: none"> - functional testing of electrical appliances - safety testing of electrical appliances - cleaning of electrical appliances - repair of electrical appliances - documentation of work conducted 	<ul style="list-style-type: none"> - visual inspection of furniture, textiles, books - functional testing of furniture - cleaning of furniture, textiles, books - repair of furniture 	
Training	University degree focused on technology and/or business administration	Training as: Power electronics technician, mechatronics technician, industrial mechanics technician	not needed	
Requirements	<ul style="list-style-type: none"> - industry-specific skills - leadership experience - negotiation skills - strategic, analytical way of working - customer focus 	<ul style="list-style-type: none"> - leadership quality - MS Office skills - quality awareness - reliability - sense of responsibility 	<ul style="list-style-type: none"> - awareness of quality - reliability - sense of responsibility 	

Terms and requirements of the employee groups

Personnel group	Rank designation	Hierarchical level	Superior	Subordinate	Scope of responsibility
executive staff	Managing Director	1	Owner	Head of department	entire company
executive staff	Head of department	2	Managing Director	Head of department	respective division
executive staff	Head of department	3	Head of department	Foreman	respective department
employee	QM representative	3	QM system	those affected by QM	company's QM system
employee	Master / Foreman	4	Head of department	Technical staff	respective working group
employee	Administrative staff	5	Head of department	-	own area of responsibility
worker	Techn. employee	5	Foreman	-	own area of responsibility

Obligations	Rights	Education	Grade range
ensure the success of the company	decision making power in the company, hiring and firing	academic foundations and many year's experience in operation	
ensure success of the business division	decision-making power in the division, hiring and firing	academic foundations and many year's experience in operations	
ensure the success of the department	decision making power in the department, hiring and firing	academic foundations or many year's experience in operations	
ensure compliance with the QMS	measures to enact the QMS	academic foundations or many year's experience in operations	
organise work in the work group	authority to issue directives in the work group	completed specialised training	
meet the scheduled tasks	decision-making power in the task area	completed specialised training	
meet the scheduled tasks	decision-making power in the task area	school-leaving certificate	

Training Schedule

Form for the Central Europe Project

CERREC

*Central Europe Repair & Re-use Centres and
Networks*

Target group analysis

from the segment groups

Product positioning

Set promotion strategy

Stakeholder-analysis

Identify affected groups

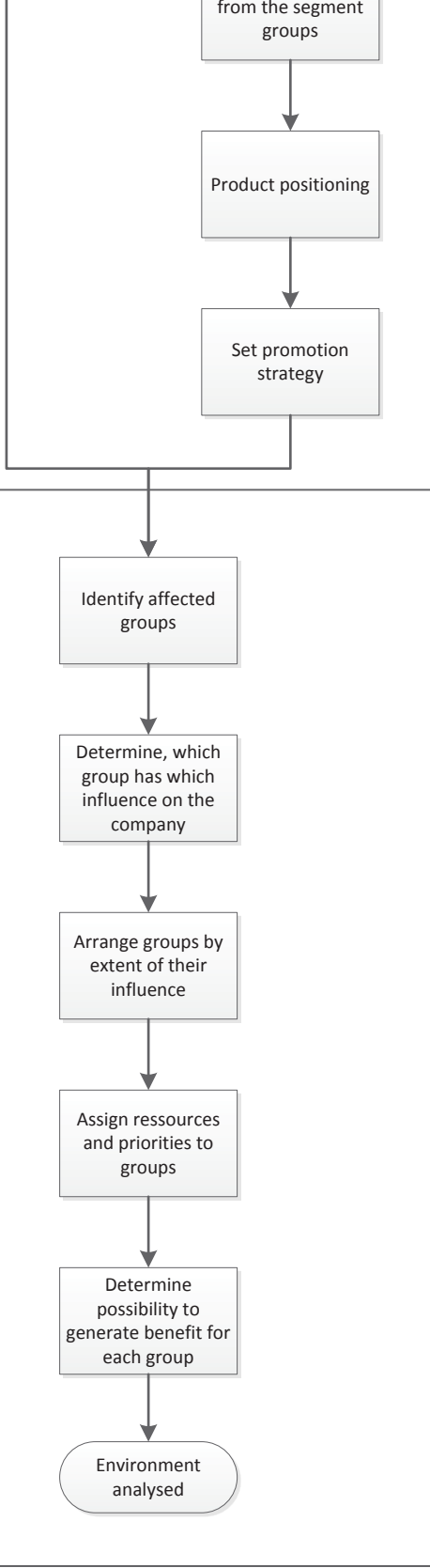
Determine, which group has which influence on the company

Arrange groups by extent of their influence

Assign resources and priorities to groups

Determine possibility to generate benefit for each group

Environment analysed



Stakeholder Analysis

Operating Procedure for the Central Europe Project

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Central Europe Repair & Re-use Centres and Networks

The **main objective** of the stakeholder analysis is to secure the **meaningful survival** of the company. This is achieved through the **primary objective** of **generating benefits** for each stakeholder group. In order to achieve this, the analysis passes through 5 steps. All steps must be fully and comprehensibly documented:

Step One

The first step is to identify all groups that could be affected by the intended action. These groups are known as **stakeholders**. These include, for example:

- customers
- employees
- sponsors
- local authorities
- competitors

Step Two

The influence of each group of stakeholders on the intended action has to be assessed. Influences may take the following forms:

- influence on corporate processes
- financial influence
- influence on public opinion
- legal influence
- influence on the market

Step Three

Stakeholder groups need to be ranked according to the extent of their influence. Is the influence barely noticeable or does corporate success depend on it?

Factors such as

- financial clout
- public response
- professionalism

play a part in this.

Influential groups include, for example, different groups of customers, authorities and suppliers. Less influential groups are, for example, people living in neighbourhood of the premises.

Step Four

Resources and priorities must be allocated to stakeholder groups that can be used to generate benefits for these stakeholders. Priorities are applied if several groups require the same resources for the generation of benefits.

Step Five

The final step is to establish for each group of stakeholders whether benefit can be generated for them. Actions in this context refer to variables within the company that can be influenced directly.

Examples of benefits include:

- satisfaction of customer demand

- reliable ordering and payment behaviour among suppliers
- compliance with all legal requirements for local authorities

Repeating the analysis

Since the environment is subject to constant change, the analysis requires regular repetition and revision.

Interval	Date of last analysis	Next analysis period



CENTRAL EUROPE
REPAIR AND RE-USE CENTRES AND NETWORKS

Target Group Analysis

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Determining a target group is the necessary prerequisite for all subsequent marketing steps.. The performance of a target-group analysis of target groups has to be fully and comprehensibly documented.

Step One

Performing a **market segmentation**. To this end, the total group of potential customers is divided into subgroups, based on various criteria, such as:

- socio-demographic: age, marital status, income, education
- psychographic: personality traits, habits, expected benefits
- buying behaviour: what is bought where?

This produces market segments such as:

- pensioners in their own home and with an interest in horticulture, buying through teleshopping
- Students in small rented flats with an interest in individualisation, buying from online shops

Step Two

The segments are **assessed** in terms of the specific corporate objective. All segments will be compared to the product and then rated as to the level of purchase probability.

Step Three

The segments with the highest purchase probability are **selected as the target group**.

Step Four

The **product is positioned**. To achieve the best possible marketing effect, the product is adapted as closely as is possible to the target group. If technical changes are not feasible, tweaking the optical design can be may be an option.

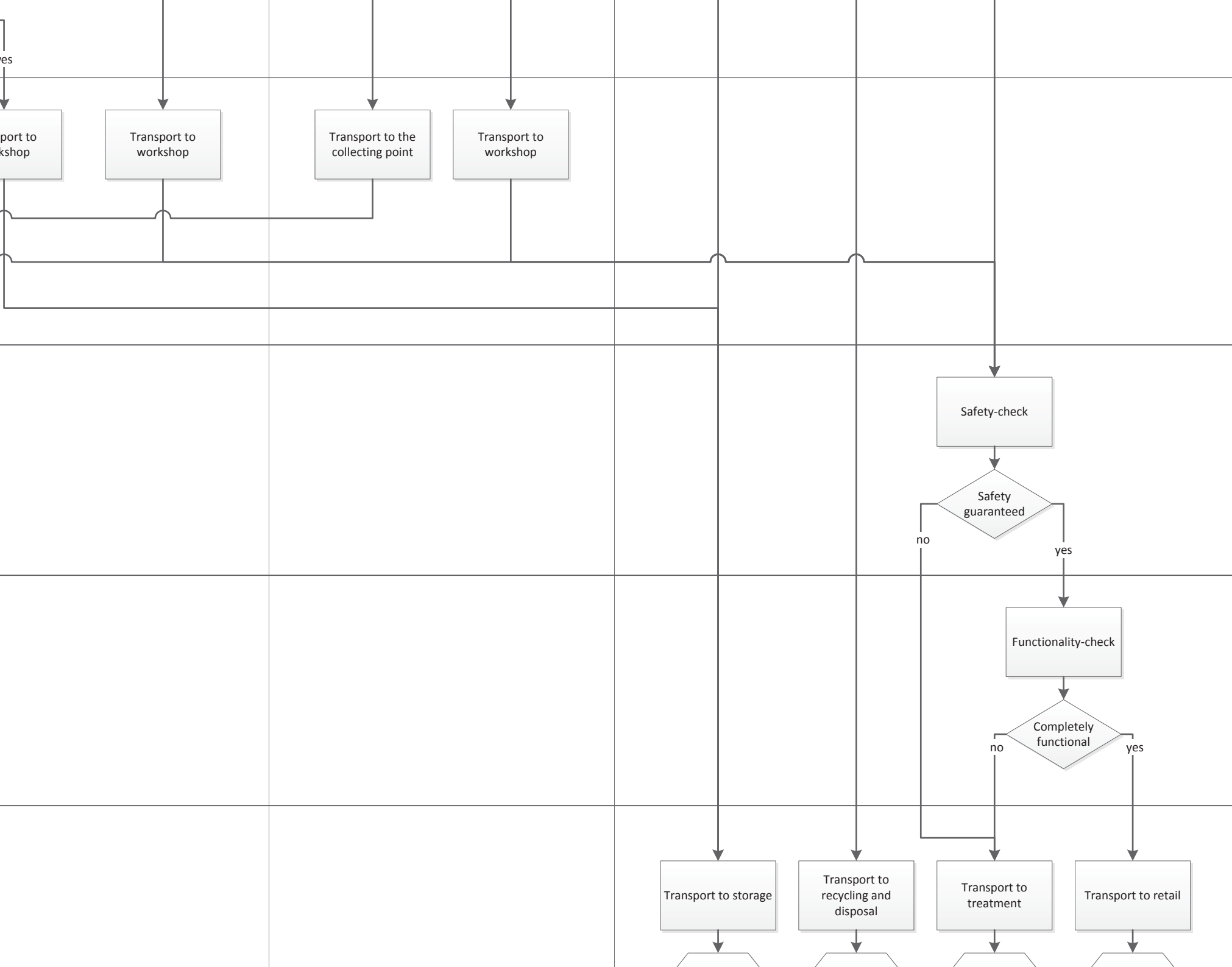
Step Five

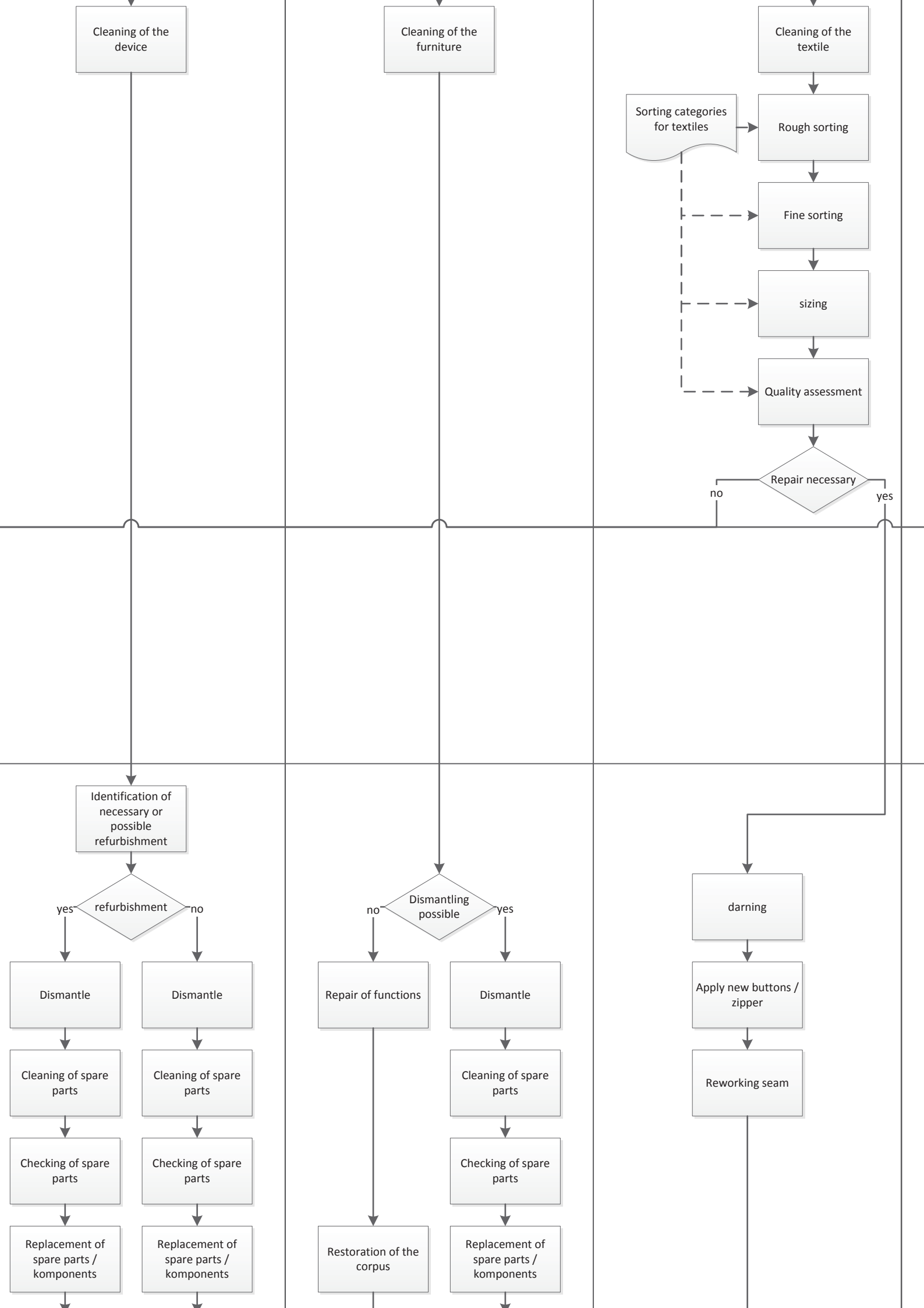
The final step is to define how to **appeal** to the target group. An advertising strategy is specifically designed for the selected target groups in order to make the product known within the target group.

Repeating the analysis

Since the environment is subject to constant change, the analysis must be repeated or revised regularly.

Interval	Date of last analysis	Period of next analysis





Cleaning of the device

Cleaning of the furniture

Cleaning of the textile

Sorting categories for textiles

Rough sorting

Fine sorting

sizing

Quality assessment

Repair necessary

Identification of necessary or possible refurbishment

refurbishment

Dismantle

Dismantle

Cleaning of spare parts

Cleaning of spare parts

Checking of spare parts

Checking of spare parts

Replacement of spare parts / komponents

Replacement of spare parts / komponents

Dismantling possible

Repair of functions

Dismantle

Restoration of the corpus

Cleaning of spare parts

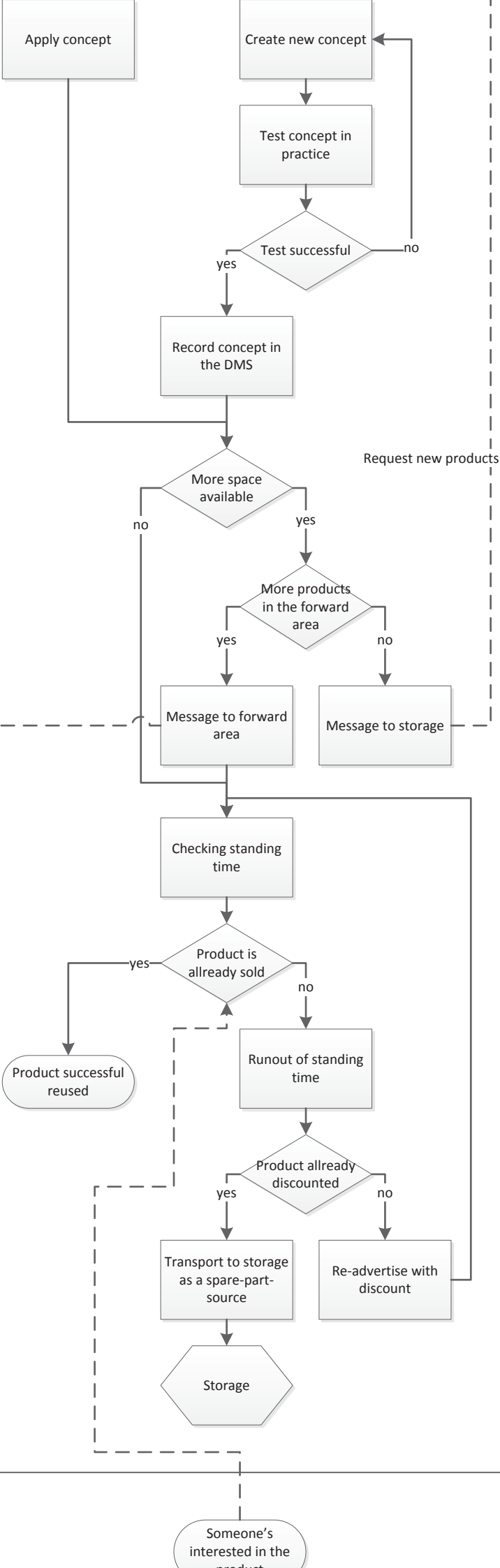
Checking of spare parts

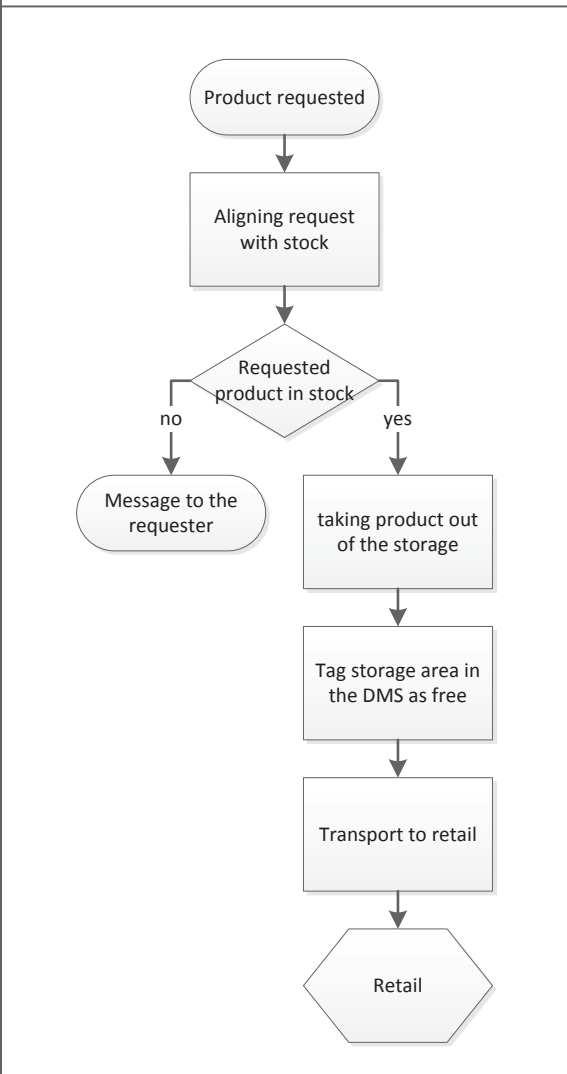
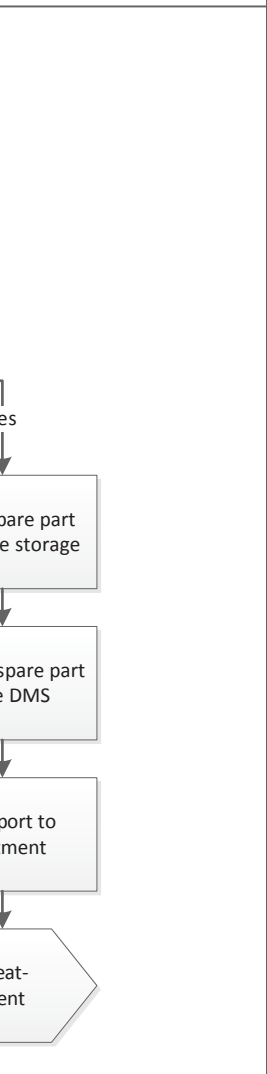
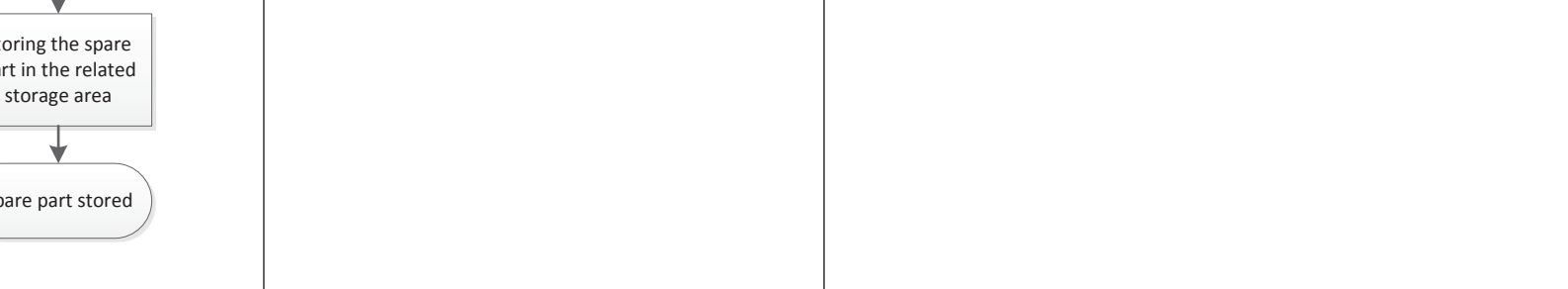
Replacement of spare parts / komponents

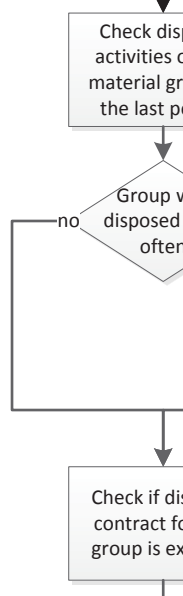
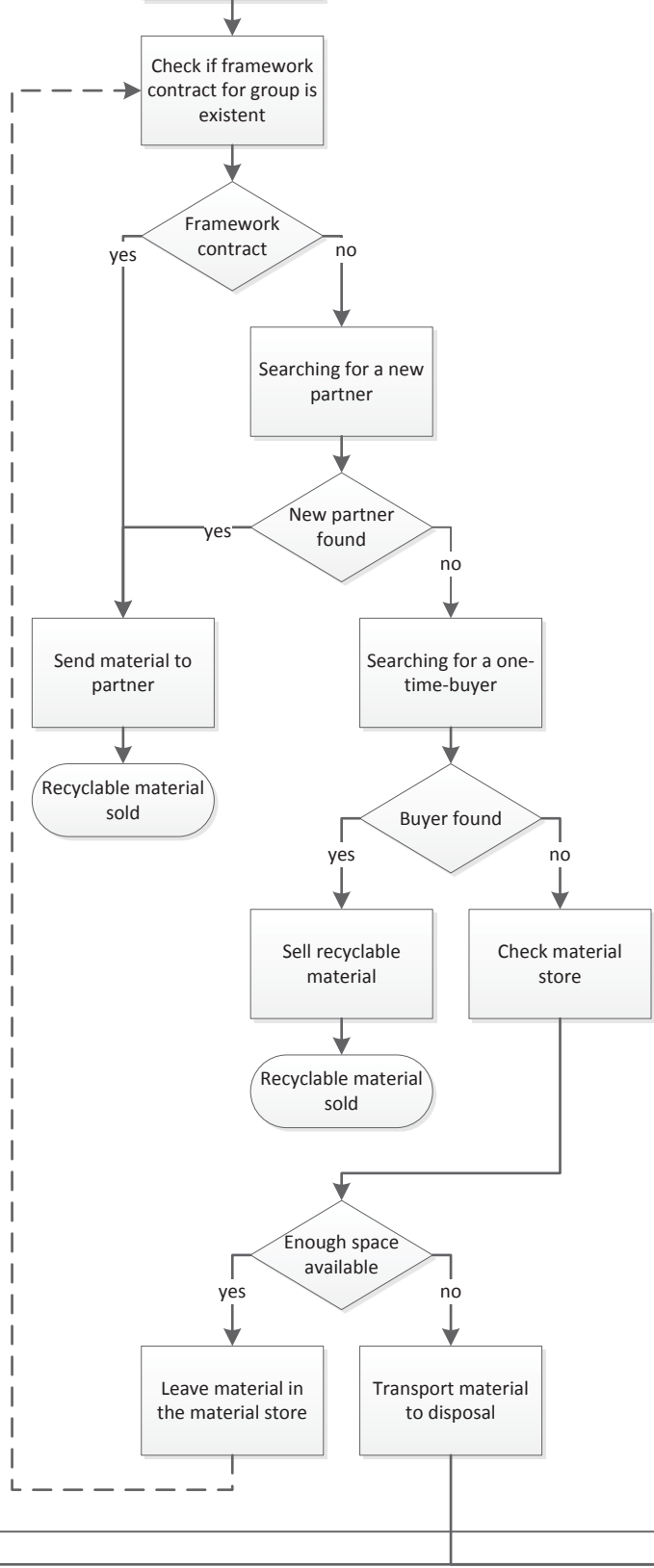
darning

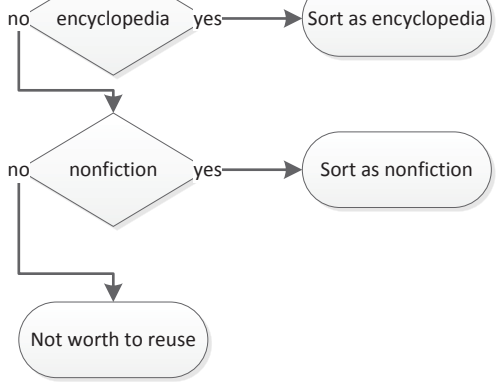
Apply new buttons / zipper

Reworking seam







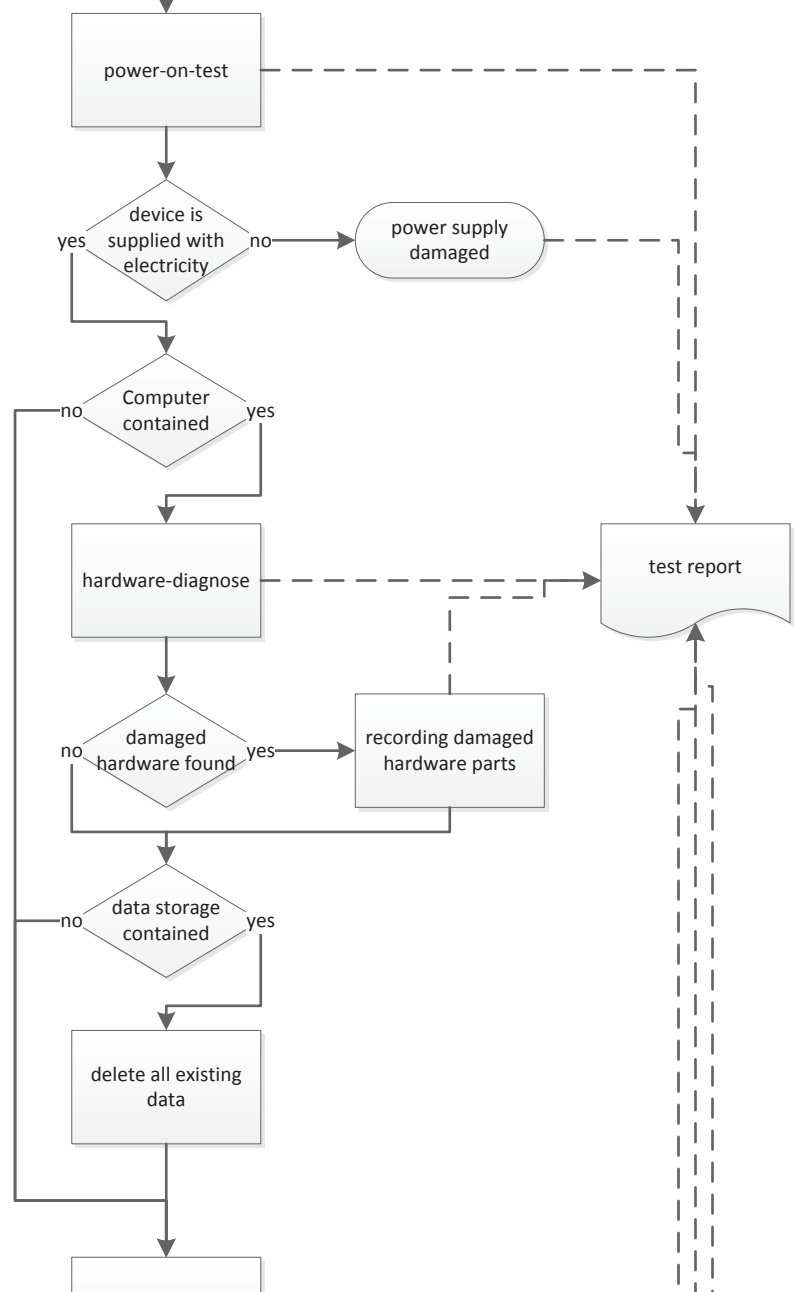
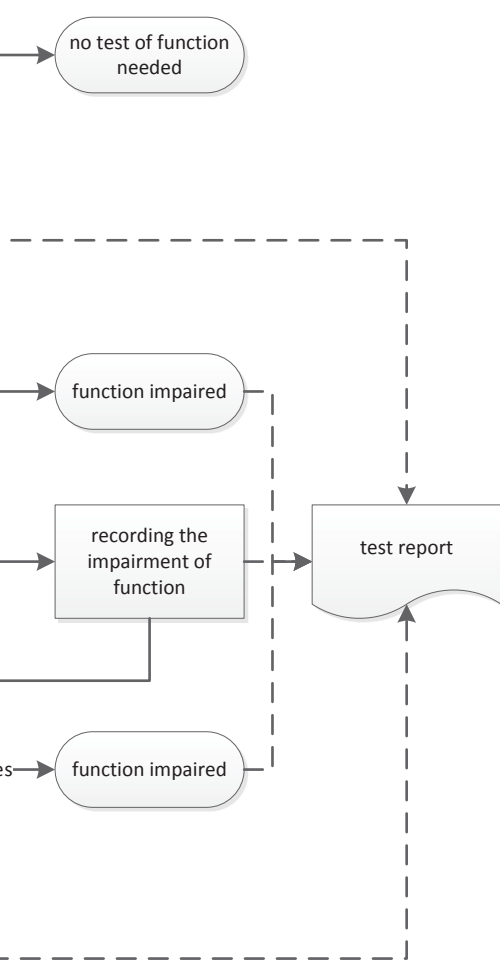
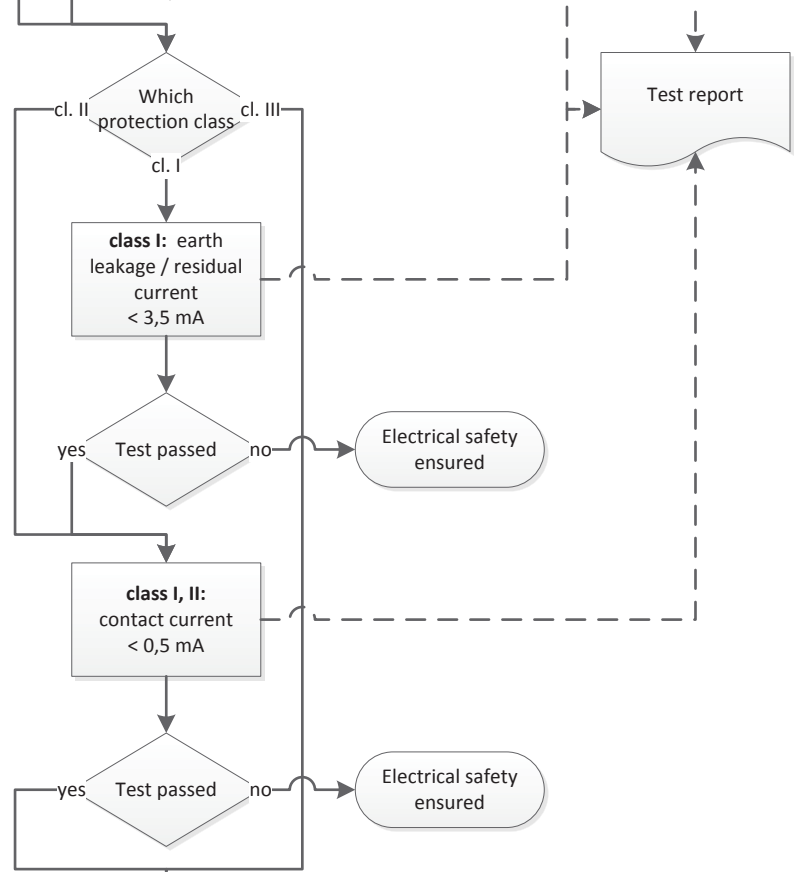


Not worth to reuse

no

yes

Not worth to reuse



Category List

Form for the Central Europe Project

CERREC

*Central Europe Repair & Re-use Centres and
Networks*

Main category	Subcategory
Electronic devices	Refrigerators Washing machines / dishwashers, dryers Oven / microwave Monitor / TV Computers and peripheral equipment Recording / playback devices, video consoles Small multimedia devices Small household devices ...
Furniture	Small furniture Large furniture ...
Textiles	Shoes Accessories Clothing Cleaning cloths / towel Household textile ...
Books	Fiction Lexicon Non-fiction book ...
Household utensils	Dishes Cutlery Kitchenware Office stationary Tool miscellaneous ...

Knowledge requirements

Form for the Central Europe Project

CERREC

Central Europe Repair & Re-use Centres and Networks

Product category	Area of knowledge	Detail description
Electrical devices	Life duration	How long is the device in working order under normal use How long can the device work if well maintained What expendable parts are there Which expendable parts need to be replaced soon ...
	Ecology / economy	Power consumption Water consumption ...
	Use	Extent of the essential functions Capacities (e.g., of washing machines and dishwashers) ...

Furniture	Life duration	How long does the furniture last under normal use How long does the furniture last when well maintained ...
	Use	Maximum load specific functions if applicable ...

Textiles	Use	How can you maintain the fabric Washing instructions
	Style	Materials used Classify design on time ...

Books	Concerning the content	Which genre Gross appearance schedule ...

Household utensils	Use	How can the utensil be maintained Specific functions or scope of functions if applicable Information on what this utensil actually is ...

Staffing requirement planning

Operating Procedure for the Central Europe Project

CERREC

Central Europe Repair & Re-use Centres and Networks

Staffing requirement planning is at the core of the personnel planning system. The system used is qualitative staffing requirement planning.

Step One

The first step is to **predict** the development of the workforce. In this, consideration should be given both to autonomous and to initiated changes. Autonomous changes cannot be influenced by the company (such as disability or death of an employee), whereas initiated changes are influenced by the company (such as recruitment or redundancies).

The result of including all projected departures and additions in the calculation is the change that will take place in the workforce.

Step Two

The second step is the determination of the **gross staffing requirement**. This consists of the staffing requirements needed to produce a particular outcome, plus a reserve requirement to compensate for anticipated absences based on past experience. The shorter the planning interval, the more accurate the consideration to be given in the planning process to the qualitative aspects of staffing requirement. For example, in an annual plan, it is possible to specify the experience that employees have to have with a certain type of machinery. This is not possible in a ten-year plan.

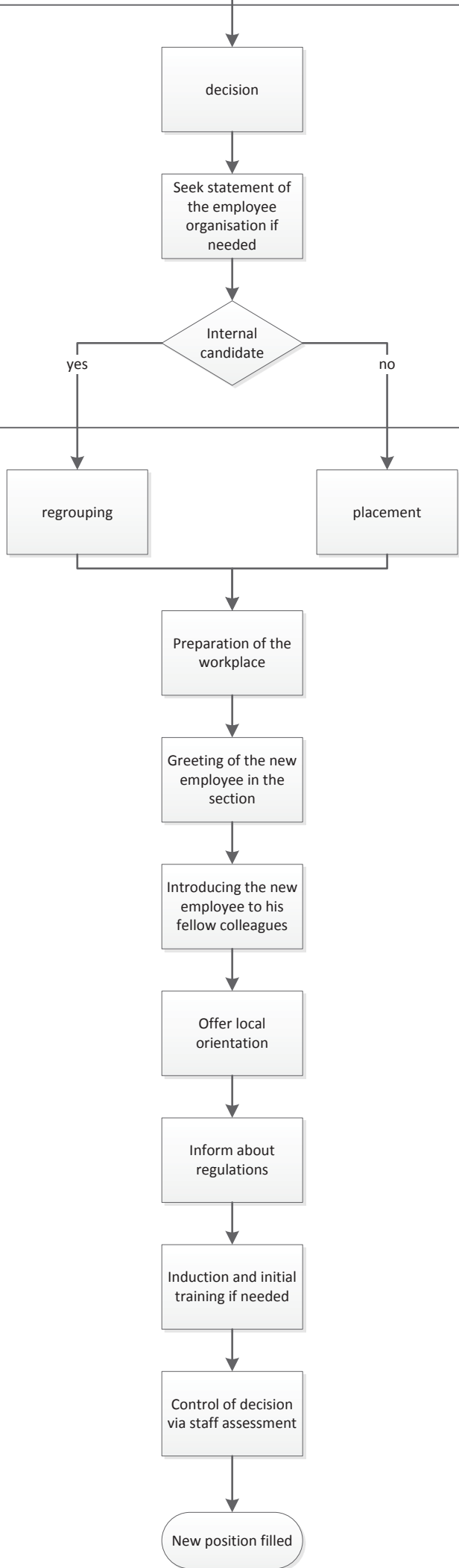
Step Three

The projected number of employees is then deducted from the gross staffing requirement. This produces the **net staffing requirement**, a figure that can be positive or negative. If the net staffing requirement is positive, new employees would need to be recruited. If it is negative, redundancies are necessary. In the latter case, primary consideration should be given to alternative solutions, such as a reduction in working hours (short-time work) or similar.

Planning review and repetition

All personnel planning are made for a specific period at a time and have to be reviewed/repeated at the beginning of a new period. A distinction is made between **short term (approx. 1 year)**, **medium term (approx. 3-5 years)** and **long term (5 + years)** planning.

Planning period	Date of last planning	Next planning period
Short term		
Medium term		
Long term		



Demonstration and Expl

Demonstration and repeating the core processes

Execution through apprentice

Imitating through the apprentice without speaking to him

Imitating through the apprentice with explanation through the instructor

Apprentice repeats core processes

The apprentice should learn the work in a way, that he can exercise by himself from now on. The apprentice should explain is steps while repeating.

Repeating exercise

Self-exercise

naming an experienced employee for queries

Check and observe the progress of the exercise

Approve exercise and formal ending

The apprentice should be able to execute the work safely. From now on he should exercise by himself. Further feedback regarding the progress is to be given.



CENTRAL EUROPE
REPAIR AND RE-USE CENTRES AND NETWORKS

Audit

Operating Procedure for the Central Europe Project

CERREC

Central Europe Repair & Re-use Centres and Networks



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND

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1. INTRODUCTION

This operating procedure for the conducting of audits is largely based on the international standard DIN EN ISO 19011:2011 - Guidelines for the auditing of management systems. Section 5.6.2 and Section 8.2.2 of the standard DIN EN ISO 9001:2008 provide for the performance of an audit in order to determine whether the requirements of the QM system as a whole and of its individual parts are met.

It is important to note in this context that there are different types of audits. Audits relevant to operations are **system audits** with the purpose of determining the effectiveness of the QM system, while **procedure audits** are used to assess compliance and suitability of individual processes of the QM system and **process audits** to review and improve process and operating procedures.

The focus in this document is exclusively on **internal audits**. These can be carried out both **planned**, i.e. to a regular schedule, as well as **unplanned**, e.g. during organisational or procedural changes.

All scheduled audits must be recorded in an audit schedule:

Audit schedule		
Audited organisational units	Period of time	Repeat interval

For further details, please refer to DIN EN ISO 19011:2011.

2. AUDIT OBJECTIVES

The objectives of the audit depend on the type of audit.

Objectives of **system audits** are:

- to provide information for the issue of certificates
- to establish the effectiveness of the QM system
- to show the orderliness of the QM measures
- to identify weaknesses within the QM system

Objectives of **procedure audits** are:

- to identify the causes of procedural problems
- to identify improvement potentials
- to promote global standardisation

Objectives of **process audits** are:

- to assess fitness for purpose
- to check implementation
- to record interfaces

- **to assign process ownership**

3. AUDIT PARTICIPATORS

The persons tasked with implementation of the audit are known as auditors. They should have no direct responsibility for the process or system being audited. The audit team is individually assembled for the specific purpose and scope of each audit. Consideration is given to the qualifications, knowledge and skills of potentially eligible persons. The lead auditor is responsible for selecting his/her team. The appointment of the lead auditor is the remit of the company management.

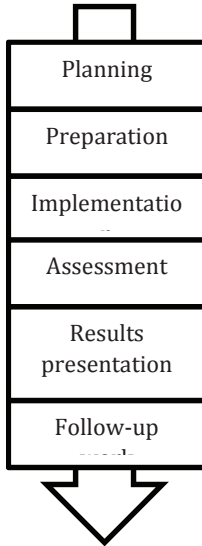
DIN EN ISO 19011:2011 states **integrity** as one of the fundamental principles of auditors. Accordingly, all auditors should:

- **carry out their work with honesty, diligence and responsibility**
- **observe and satisfy all relevant legal requirements**
- **demonstrate their competence in their work**
- **perform their work impartially**
- **be sensitive to any influence that may be exerted during the execution of an audit**

Other fundamental principles of the auditors include:

- **the factual presentation of findings, conclusions and reports**
- **adequate professional care**
- **confidentiality**
- **independence**
- **an evidence-based approach**

4. AUDIT SCHEDULE



An audit schedule consists of various phases, as illustrated on the left.

The **planning phase** consists of the development of an audit plan describing the activities, arrangements and objectives of an audit.

The **preparation phase** includes the preparation of audit documents, the definition of auxiliary materials and the agreement of audit criteria.

In the **implementation**, the checklists from the preparation phase are used. Surveys are conducted, documents sighted and conditions observed.

The **assessment phase** establishes the conformity with the audit objectives and criteria. The conclusions are recorded in an audit report.

The purpose of the **presentation** is to show the results of the audit to the audited staff. A concluding interview is used to determine the next actions and a possible follow-up audit.

In the **follow-up phase**, measures for improvement are initiated and their effectiveness ensured.

For more details, please refer to the **process diagram** "The audit process".

5. PLANNING

The following template below can be used to plan an audit (template based on Gerhard Linss, Qualitätsmanagement für Ingenieure [Quality Management for Engineers], Carl Hanser Verlag, Munich, 2011: p. 576).

Document number: Au01	Audit plan		Page 1 of 1
Audit type	System audit		Process audit
Audited organisational units			
Implementation period			
Objectives and scope			
Criteria			
Schedule for audit activities			
Period (date, time)	Activity		
Members of the audit team			
Remarks			
Approval of the audit			
Name	Function	Date	Signature

	QM representative		
	Lead auditor		
	Chief executive		

6. LIST OF QUESTIONS

Content that should be included in the list of questions:

- standard requirements
- previous audit results
- corporate objectives
- statutory requirements
- current events

Types of documents and information that can be evaluated for the questionnaire:

- guidance documents (laws, technical regulations, standards, guidelines ...)
- implementation documents (manuals, contracts, corporate overviews ...)
- procedural documents (process descriptions, procedural instructions, test plans ...)
- specification documents (drawings, purchase orders, product descriptions...)
- performance indicators
- cross-organisational information (information from professional associations, publications, etc.)
- IT information (software manuals ...)

In the compiling of information, it is important to pay heed to the verifiability of information. Only verifiable sources can be used as audit evidence.

7. ASSESSMENT

Audit evidence is assessed against the audit criteria, thus generating audit findings. These indicate the conformity of the verified sources (audit evidence) with the predefined audit criteria.

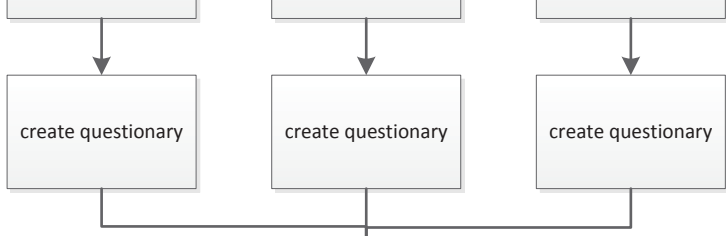
The audit findings are assessed against the audit objectives, thus generating the audit conclusions. This assessment takes place during closing meeting, together with the development of recommendations and follow-up measures.

8. REPORT

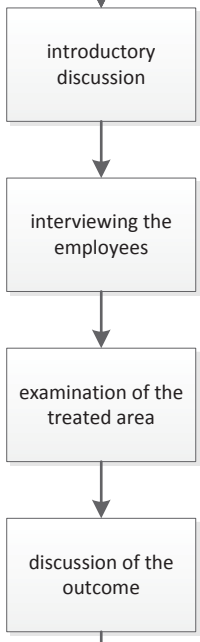
The audit report should provide a complete, accurate, concise and clear record of the audit and be issued within an agreed period. The following points should be included:

- **audit objectives**
- **scope of the audit**
- **audit commissioned by**
- **audit team and audited organisation**
- **dates and locations of activities**
- **activities carried out**
- **audit criteria**
- **audit findings as well as associated evidence**
- **audit conclusions**
- **an indication of the degree of compliance with criteria**

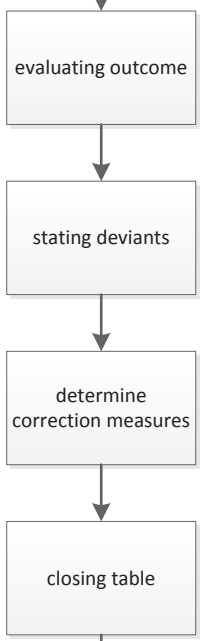
prearrangement



execution



Evaluation



of results

