Quality Manual

TO SATISFY OUR CUSTOMERS
IN A DURABLE AND EFFECTIVE MANNER

APAVE International

apave

International

Quality Policy

Established since 150 years, Apave is a key player in the field of safety of persons, property and environmental protection. As a subsidiary, Apave International is committed to further strengthen the positioning of APAVE on the international market, its reputation of professionalism, high quality standards and ethical principles, and to develop its relationship with public and private stakeholders, communities, industry (manufacturers) and services.

We are committed to:

- always respect the established rules of ethics,
- develop and implement an effective quality system, meeting the requirements of international quality standards
- deploy the quality management system at all organizational levels
- continuously improve our organization and the quality of our services

Our mission is to:

- Ensure excellence of our services
- Improve the quality of our operations
- Develop the activities in order to further extend the scope of our services on the international market
- Satisfy the client needs, ensuring, in the same time, the respect to the principle of impartiality and the concerned legal context
- Harmonize the practices in all subsidiaries, optimize and improve the operational efficiency through the use of unique, simple and efficient management system

We believe that the highest quality standards of our services worldwide shall be achieved only if all parties agree upon, respect and implement the general rules regarding management of quality.

We are fully committed to provide whatever may be necessary for the implementation of this policy.

Van Phuc Le
CHAIRMAN

Introduction

The purpose of this manual:

This Manual defines the Quality Management System of APAVE International.

It describes the principles governing the organization and the resources necessary for the implementation of the established policy by all employees APAVE International SAS and its related entities. The Quality Management System of APAVE International is in line with the Quality Management System of APAVE SA.

This Manual is used internally, to guide company's employees into the quality management system requirements, as well as externally, for representing our system in front of any interested external organizations or individuals.

Definitions

All definitions and abbreviations applicable to the Quality Management System of APAVE International are defined in each Quality Management Procedure (hereinafter referred to as: QMP).

Main modifications

This is the first version of the Quality Manual. All further modifications will be documented.

Entities concerned:

The Quality Manual defines the general policies applicable to the following entities:

- Apave International SAS
- The operating subsidiaries:
  - APAVE Asia-Pacific
  - APAVE Malaysia
  - APAVE China
  - APAVE Singapore
  - APAVE SEE
  - APAVE Congo
  - APAVE Gabon
  - APAVE Algeria
  - APAVE Cameroun
  - APAVE Nigeria
  - APAVE Cote d'Ivoire
  - APAVE Mali
  - APAVE Burkina Faso
  - APAVE VerTech
  - APAVE Ghana
  - APAVE Senegal
  - APAVE Equatorial Guinea
  - APAVE Lebanon
  - APAVE Indian Ocean
  - APAVE Morocco
  - APAVE Madagascar

If relevant, some other subsidiaries of APAVE International may also choose to follow the guidelines in this Quality Manual.

In the context of the quality management system, the term APAVE International refers to the head office and the related entities included in the scope.

Standard:

The Quality Manual is based on the ISO 9001 standard (V2015). See Appendix 1.

Contents

01

Management

1 • Management

1.1. Activities and organization

General presentation of Apave

APAVE is committed to providing services that meet the needs and expectations of the customers and other stakeholders. It is also committed to enhance customer satisfaction through the effective application of the Quality Management System.

The provisions stated in this Manual apply to all services performed by APAVE International. In accordance to the services offered by the mother company, the scope of the activities performed by APAVE International is as follows:

- Inspection
- Construction and Infrastructure
- Consultancy
- Tests and Measurement
- Professional Training

These activities are regrouped in the following domains:

- Electricity
- Mechanical and lifting equipment
- Pressure equipment and NDT
- Construction and Civil Engineering
- Environmental Test and measurement
- Health and Safety, Environment, Management Systems (Consultancy)
- Professional Training

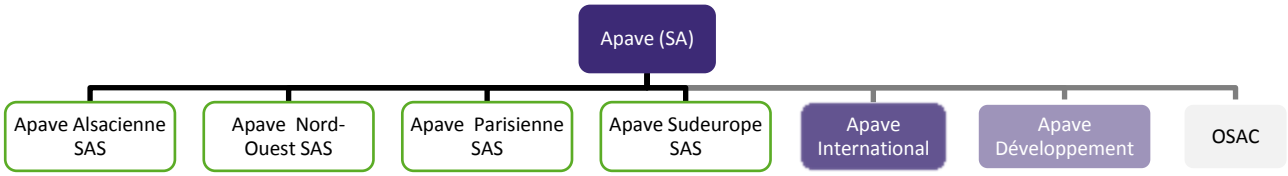
Apave International main features:

50 locations in
- Europe,
- Africa,
- Middle east
- Asia.

2 000 employees

To find out more: www.apave.com

Apave Group



Apave (SA) is the head office and the mother company of the 4 Apave SAS subsidiaries.
Apave International is a subsidiary of Apave (SA) for international services.
Apave Development is a holding company that gathers other subsidiaries dedicated to specific services or markets, with the exception of OSAC, which reports directly to Apave (SA).

All of these entities and their subsidiaries constitute the Apave Group.

History

Originally, the Apave entities were established in France as associations in the period between 1867 and 1885 by the main owners of various industry units. Their mission was to ensure prevention of the shared risks related to pressure vessels, as well as energy production and use.

In the course of time, APAVE was continuously expending its scope, from risk management to prevention of people, goods and environment.

In the period between 2010 and 2011, a major organizational restructuring change took place, which lead to the creation APAVE SA, founded by the four associations as a mother company and its seven operational subsidiaries.

APAVE started developing its services on the international market at the beginning of the year 2000.

APAVE International SAS as a legal entity devoted to develop the services of APAVE on the international market was created in 2010, with a head office in Bordeaux, France.

Today APAVE International has more than 2000 employees and operates at 30 countries throughout the world.

Stakeholders, context

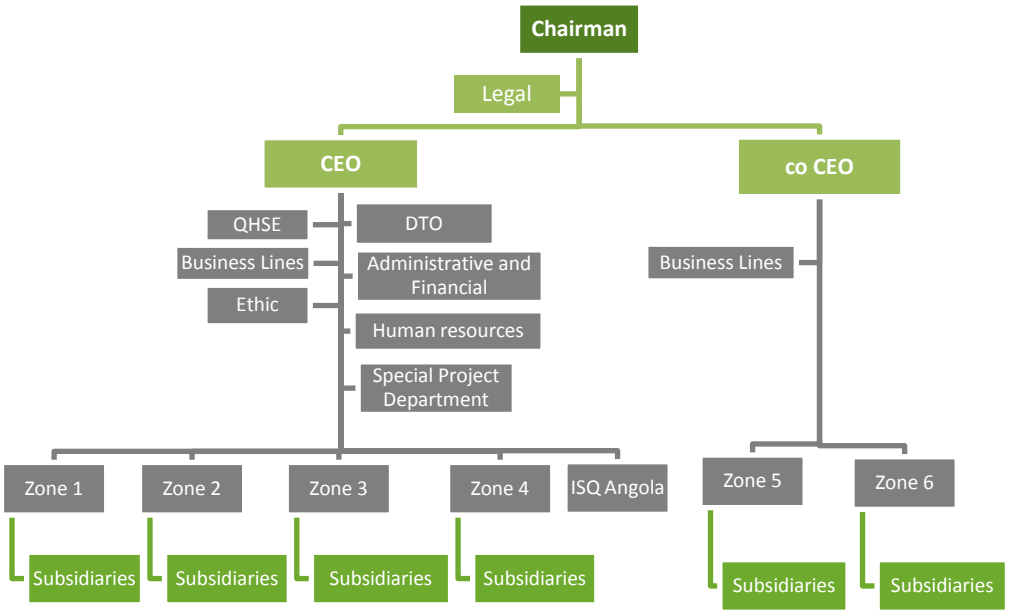
The stakeholders of Apave International are:

- The clients
- The governments of the countries where present,
- The employees and subcontractors
- The certification and accreditation bodies

Apave International operates in an international context of globalization, where the regulations are defined by the governments or requirements are defined directly by the clients.

Apave International performs its activities in the industry sector which involves significant technical, safety and environmental risks. The role of Apave International is to manage the identified risks, in cooperation with clients, and respecting the principals of impartiality and independency.

Apave International SAS Organization Chart



Governance

APAVE International SAS defines all applicable rules related to the quality management system and shall provide all necessary support and assistance to its subsidiaries. All subsidiaries of APAVE International shall implement and follow the rules and principles established by the mother company.

The relation between the subsidiary and its mother company is formalized through a Memorandum of Understanding.

Each subsidiary is responsible for the realization of the services in the assigned geographical region and disposes the necessary resources, in compliance to the technical and quality rules defined by the mother company.

The subsidiaries of APAVE International dispose of their own support roles (sales, technical, quality, HSE, administration and finance) performing their activities according to the principles and the organization structure set by the head office. The support roles of the subsidiaries are directly related and report to the corresponding functions of the mother company.

Responsibilities

All the functions and responsibilities are described in the QMP Organization.
Each employee is fully informed on his/her responsibilities within APAVE International.

Quality responsibilities:

The QMS of APAVE International is managed on 3 levels: by the head quarter, by zone and by each subsidiary.

The CEO of APAVE International nominates a Quality Manager in charge of:

- defining the quality system framework and standards applicable to all activities and locations, enhancing the triple principle of efficiency, clarity and simplicity,
- orienting the Quality Management System of APAVE International towards continuous improvement,

- ensuring that the QMS is implemented and maintained in accordance to the referenced standards and the management commitments,
- reporting to the top management on the performance of the QMS management system and any need for improvement

Each Zone General Manager (DGA) appoints a Zone Quality Manager in charge of:

- Deployment of the QMS in the zone
- Coordination of the Quality representatives of the zone
- Organization of internal audits within the zone
- Participation to quality meeting
- Follow up of the managements reviews planning

Each Subsidiary Manager appoints a Quality Representative for his/her subsidiary in charge of:

- implementing the quality management system within the subsidiary
- reporting to the Zone Quality Manager for the efficiency of the system and any discrepancy or non-applicability of the system locally
- establishing complementary elements of the quality system in order to ensure the compliance of the subsidiary to any recognitions necessary locally while respecting the principle of simplicity

Each employee of APAVE International applies the quality system principles and participates in achieving the company objectives.

Technical responsibilities

The technical responsibilities of APAVE International are structured in relation to the nomenclature of Apave Group and are managed by the Direction for Technique and Organisation (hereinafter referred to as: DTO).

The **International Domain Manager** managed by the Technical Manager is in charge of:

- Defining and/or adapting the products of its domain
- Ensuring technical supervision and monitoring, in the subsidiaries, with the help of the Supervisors,
- Management of internal trainings and Qualification
- Assisting to and advising other directions and departments in terms of technical issues
- Coordinating the activities of the Supervisors and the technical experts

The **Domain Supervisors** are appointed per Domain and per technical zone (aka group of countries, taking in account languages and technical standards). They are responsible for:

- verification of compliance with quality and technical rules
- selection and coordination of the Technical Referents, supervision of their missions,
- ensuring the efficiency of the monitoring process,
- implementing the technical documentation,

QMP Organization

1.2. Risk assessment

Risk analysis

APAVE International identifies the potential risks related to the quality of our services and affecting the client satisfaction, in order to be ready to respond, mitigate or avoid issues, if such arise.

APAVE International identifies the risks on two levels:

- The Quality Manager of APAVE International SAS, in cooperation with each department identifies the general risks and opportunities per process
- The management of each subsidiary identifies any further risks and opportunities, within their Subsidiary during the annual Management Reviews.

The risks related to our company arise from the context of our organization (internal and external) as well as the requirements and the expectations of the stakeholders of APAVE International.

Depending on its criticality, each identified risk is followed by a grading of its severity and likelihood.

Each risk may be reduced by a reduction factor, if an appropriate effective preventive measure is implemented.

Each risk is graded with an Initial Risk Grade (IRG) and a Final Risk Grade (FRG). The risks superseding a Final Risk Grade of 12 are considered as significantly critical and are subject to a special analysis and strengthened preventive measures.

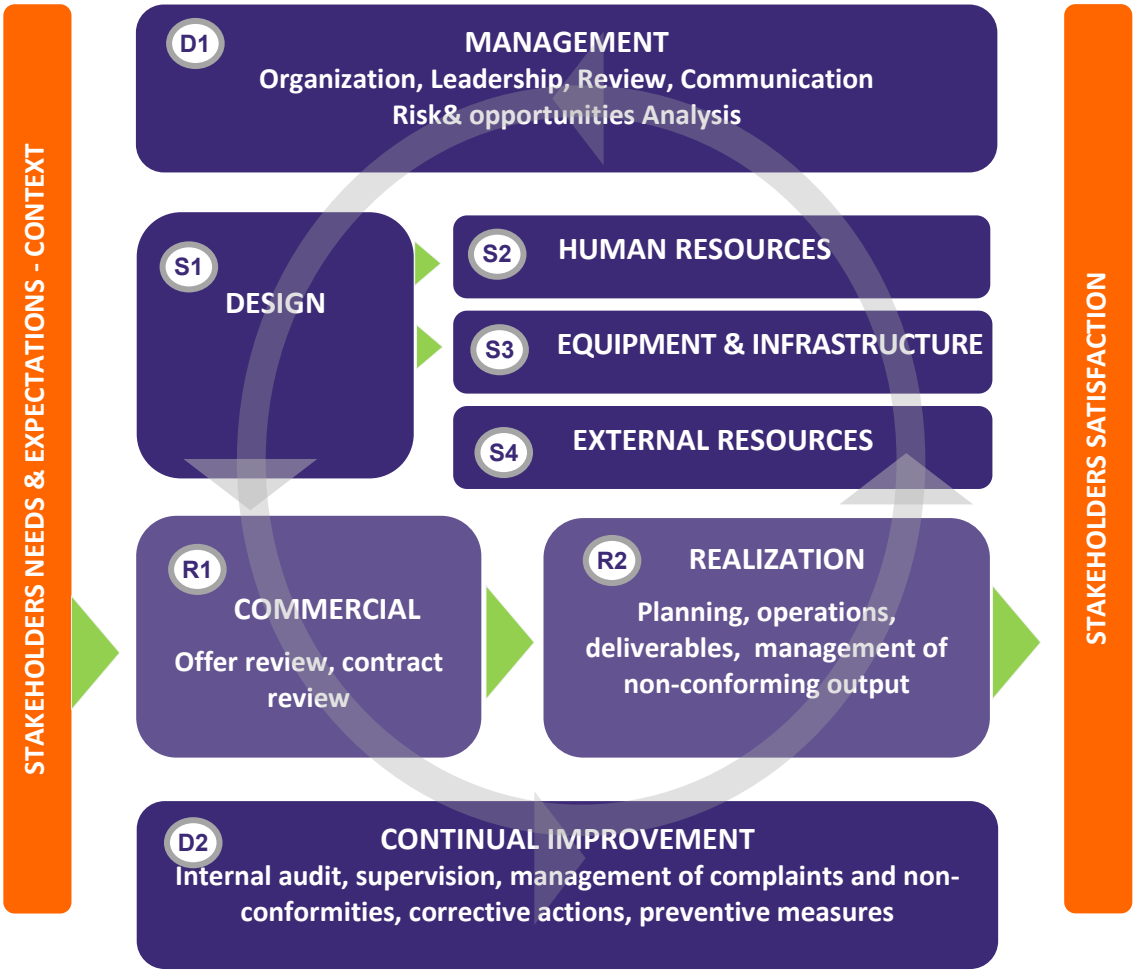
All preventive measures and risks are monitored by the pilot of the process (either local or at a group level) and reviewed at least once per year, during the management reviews.

During the Management Review of the headquarter, a consolidated report of the risks of all subsidiaries is elaborated so that an overview of all organization risks is ensured, analyzed and further preventive actions are proposed.

The risk assessment is documented on the Risk Assessment Table (template available on the Cloud).

1.3 Quality System

Apave International processes



Direct processes interaction

Global processes interaction

Each process is defined with:

- Objective(s)
- Key Performance Indicator(s)
- Pilot
- Input(s) and output(s)

This is documented in the present quality manual and in the Process Management Table, available on the Cloud. Each process is reviewed once per year by the assigned pilot. The information is documented in the management review report.

Communication

The internal communication is ensured through the internal newspapers InfoGroupe as well as by using the Cloud, internal notes or emails, meetings within a Country, on a Zone level and on a Headquarters Level.

All relevant information related to APAVE International is distributed through notes or email by each functional manager, in the scope of its responsibilities, following the quality, technical or other networks, as defined in the Quality Management Procedure – Organization.

The communication with the stakeholders is done by the internet websites and under the responsibility of Subsidiary Manager, Business Line Managers, CEO and Co CEO.

Customer focus

It is mainly based on the following elements:

- direct feedback from clients,
- audits and client evaluations,
- processing of complaints,
- customer satisfaction surveys
- participation on fairs, conferences

Recognitions

APAVE International headquarter takes the final decision and manages all recognitions (agreements, accreditations, certifications) which are necessary to perform and further develop its activities and defines the scope and perimeter of their application.

All external recognitions are registered by the Quality Manager of APAVE International, with the help of the internal applicable IT tools. For the purposes of communication and transparence, information of all recognitions is available on the web site of www.apave.com.

Insurances

For the business activities which involve civil responsibility, Apave International and its subsidiaries must:

- hold the appropriate insurance,
- is able to show on demand, to clients or other stakeholders, a certificate of insurance specifying the limits of the insurance.

Management Review

	Subsidiary	Headquarter
allows to ensure	The compliance and the efficiency of the Quality Management System according to the Quality Policy and objectives established by the headquarters	The compliance and the efficiency of the Quality Management System according to the Quality policy and objectives
Is held (at least) once a year	By the management of the subsidiary, in presence of the Quality Representative	By the top management of APAVE International in presence of the Quality Manager, on the basis of the input data ensured by the Zone Quality Managers
Input data	Results of internal and external audits Client feedback, customer satisfaction, complaints Achievement of the quality objectives and quality actions from previous management review Major non-conformities and corrective actions Key Process Indicators Supervision and monitoring results Changes which might affect the quality system Needs and expectations of interested parties Adequacy of resources The effectiveness of preventive measures and action to address risks and opportunities Opportunities for improvement	Management review reports from the subsidiaries, Elements from the headquarters related to the processes of monitoring and improvement Changes which might affect the quality system Needs and expectations of interested parties The effectiveness of preventive measures and action to address risks and opportunities Opportunities for improvement
Is documented by a Management Review Report	Established by the Quality Representative, approved by the Subsidiary Manager It includes all the decisions taken for the period that follows, related to the quality objectives and actions as well as the resources necessary for the subsidiary	Established by the Quality Manager, approved by the CEO of APAVE International It includes - All the decisions taken for the period that follows, related to the quality objectives to be implemented within the subsidiaries and all necessary guidance, as well as necessary resources - Conclusion for the overall efficiency of the quality system
The Management Review Report is distributed to	All participants as well as to all personnel concerned by the decisions taken during the review	All participants as well as to all personnel concerned by the decisions taken during the review

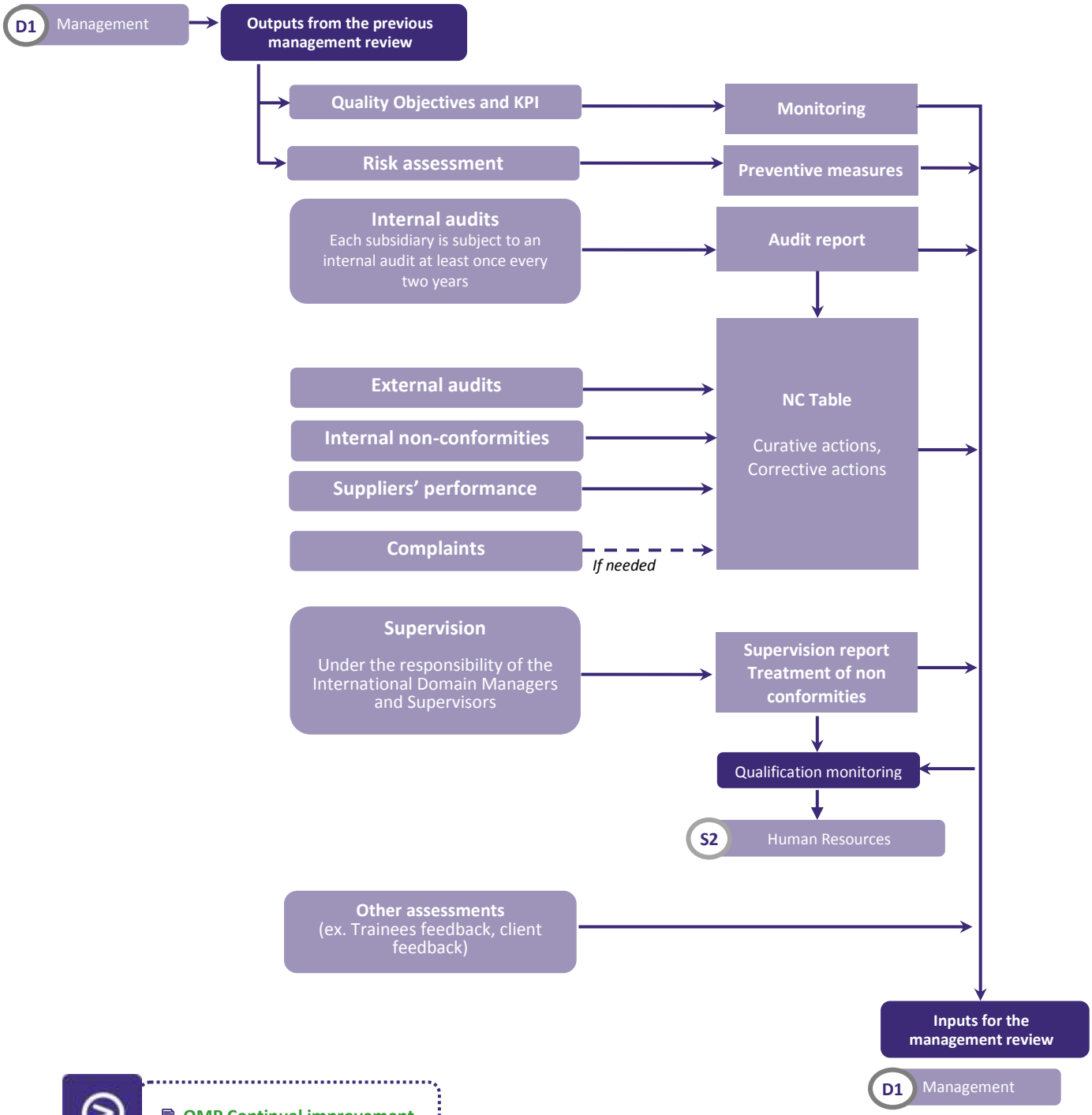
1.4. Continual improvement

OBJECTIVE

Identify and manage the non-conformities and the client complaints, improve the quality system and implement effective corrective actions

PILOT

Quality Managers & Quality representatives



QMP Continual improvement

Non conformities

Should an internal non-conformity be noticed, the employee shall inform the quality representative for validation and further analysis.

The recipient of the non-conformity shall propose an action plan, in particular:

- General description of the issue
- Root cause analysis
- Corrective actions in order to eliminate the root cause of the issue or curative actions

The non-conformities are managed through an NC table, accessible to each subsidiary. Non-conformities are closed by the local quality representative. Furthermore, he/she shall verify the implementation of the action plan.

The non-conformities which have a direct impact on APAVE International SAS are treated directly by the responsible units of the head office.

Each quality representative monitors the status of the non-conformities for the corresponding subsidiary and reports to the Zone Quality Manager.

QMP Continual improvement

Complaints

All complaints, regardless of their receipt mode (written or oral), are registered in the NC table, by the Quality Representative.

The complaints are classified depending of the project type:

- Key project complaints (arising from key account projects) – the key accounts manager is immediately informed and monitors the management of the complaint or appeal
- Other projects complaints, treated by the concerned persons, and reviewed once per year.

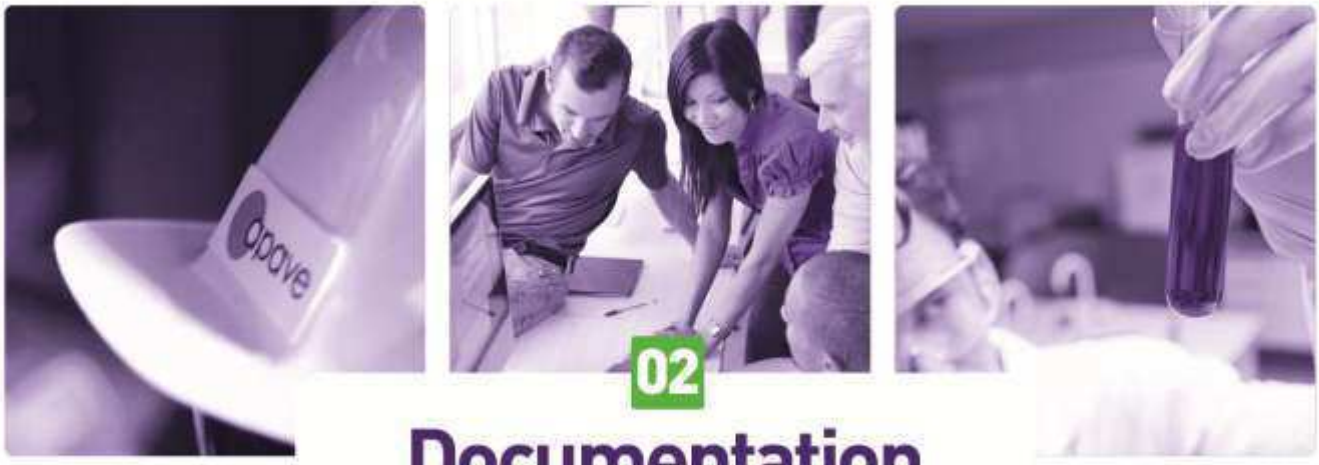
The analysis and the treatment of all complaints is conducted and registered under the responsibility of the Subsidiary Manager or Department Manager, according to the following steps:

- Collection and verification of all information necessary to establish whether the complaint is sustained or not,
- Identification and implementation of actions necessary to respond to the complaint,
- Answer to the client

The decision whether the complaint is sustained or not is taken (or analyzed and approved) by the Department Manager or Project Manager, a competent person and always by at least one person that is not directly involved in the activities related to the complaint.

The Quality Representative verifies whether the complaint has been properly analyzed. He/she decides:

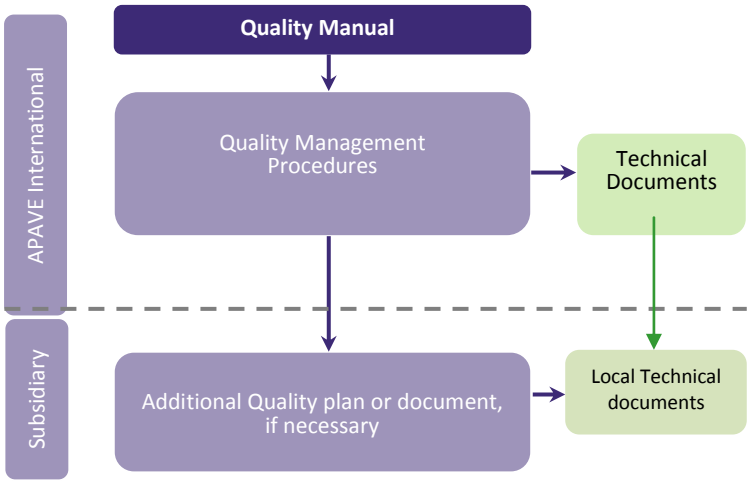
- whether the complaint is sustained or not, if needed,
- to close the complaint, if the foreseen actions are undertaken and the outcome is satisfactory,
- whether the complaint should be registered as a non-conformity e.g. needs a cause analysis and corrective action(s).



02

Documentation

2 • Documentation



There are 2 main types of documents:
- quality documents,
- technical documents

Quality Documents

The Quality Management Procedures (QMP) complement the provisions of the Quality Manual and are mandatory for the subsidiaries of APAVE International stated in Chapter Introduction.

The Quality Plans define the additional requirements of the subsidiary for a specific client or other requirement (accreditation, agreement etc). Those are applicable only to the concerned subsidiary.

Other quality documents may be additionally prepared and implemented upon approval by the quality manager or the zone quality manager, and only when necessary.

The quality documents are complemented by forms and records (examples: NC table, Qualification sheet, Internal Audit Report etc).

QMP Control of documents and records

Technical Documents

The **technical documents** are specific to each domain.

They include:
- **Domain technical procedures** - established for each domain identified in APAVE International. They define the specific provisions applicable to the field and in particular the human, material and methods resources and requirements.
- **Working instructions**
- **Product/service description files**
- **Local Technical documents,** specific to subsidiary or a country
- **Equipment in-house verification working instructions**
- **Other**

Technical documents are complemented by tools, forms and records.

The technical documents are developed and updated as described in the QMP Control of document.

Distribution and use of technical and quality documents

The Quality Manager distributes the applicable quality documents to the Zone Quality Managers who are further in charge to distribute them to the Quality Representatives and Subsidiary Managers.

The Quality Representatives are in charge of distribution and implementation of the quality documents within the subsidiary.

All applicable quality documents are available through the Cloud.

The International Domain Manager distributes the technical documents to the Domain Supervisors who are further in charge of distribution to the technical referents and the qualified personnel.

All additional documents (both quality and technical) are managed locally.

Records and archiving

The records result from the application of technical and quality documents. Examples: NC table, personal file, supervision report.

They can exist in different formats (paper, electronic, photographs...).

A good records management is essential for our activities. Maintained and available records are the only tangible evidences of the proper implementation of the system.

When necessary, traceability of our actions allows us to provide proof of the achievement of our services.
Examples: audits, client litigation.

The archiving of records and documents is described in the relevant QMP. Archiving documents and records durations are defined:

- in QMP Control of documents for general documents and records,
- in QMP Realisation, for project files

QMP Control of documents and records

03

Design & Resources

3 • Design and Resources

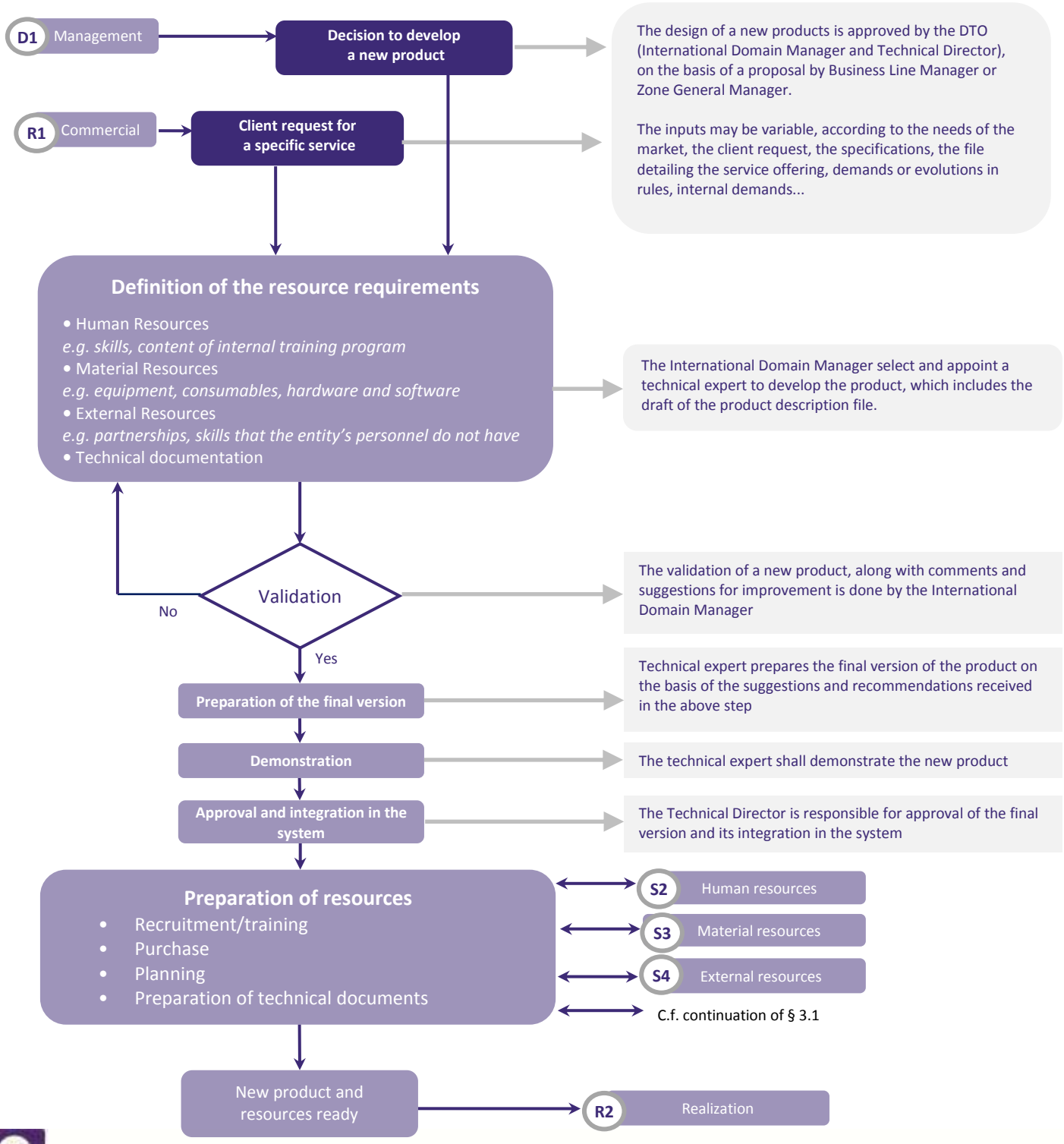
3.1 Design of products

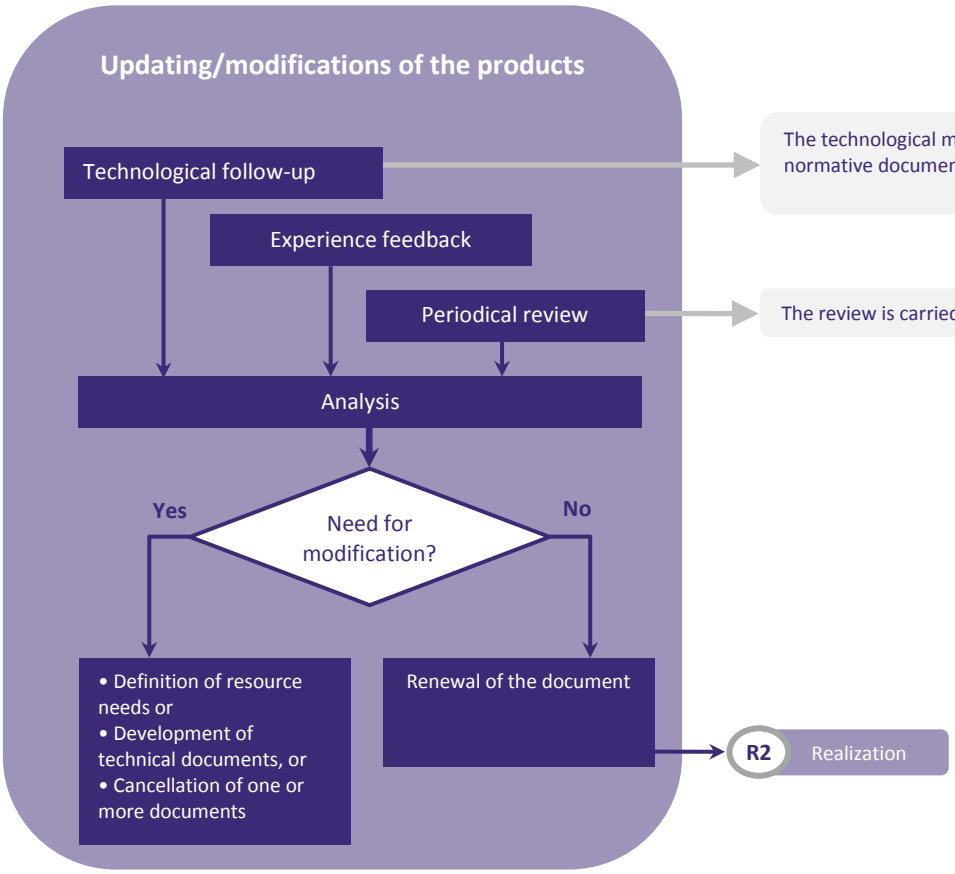
OBJECTIVE

Develop new products in compliance with the set technical requirements and ensure the necessary resources

PILOT

DTO





QMP Control of documents and records

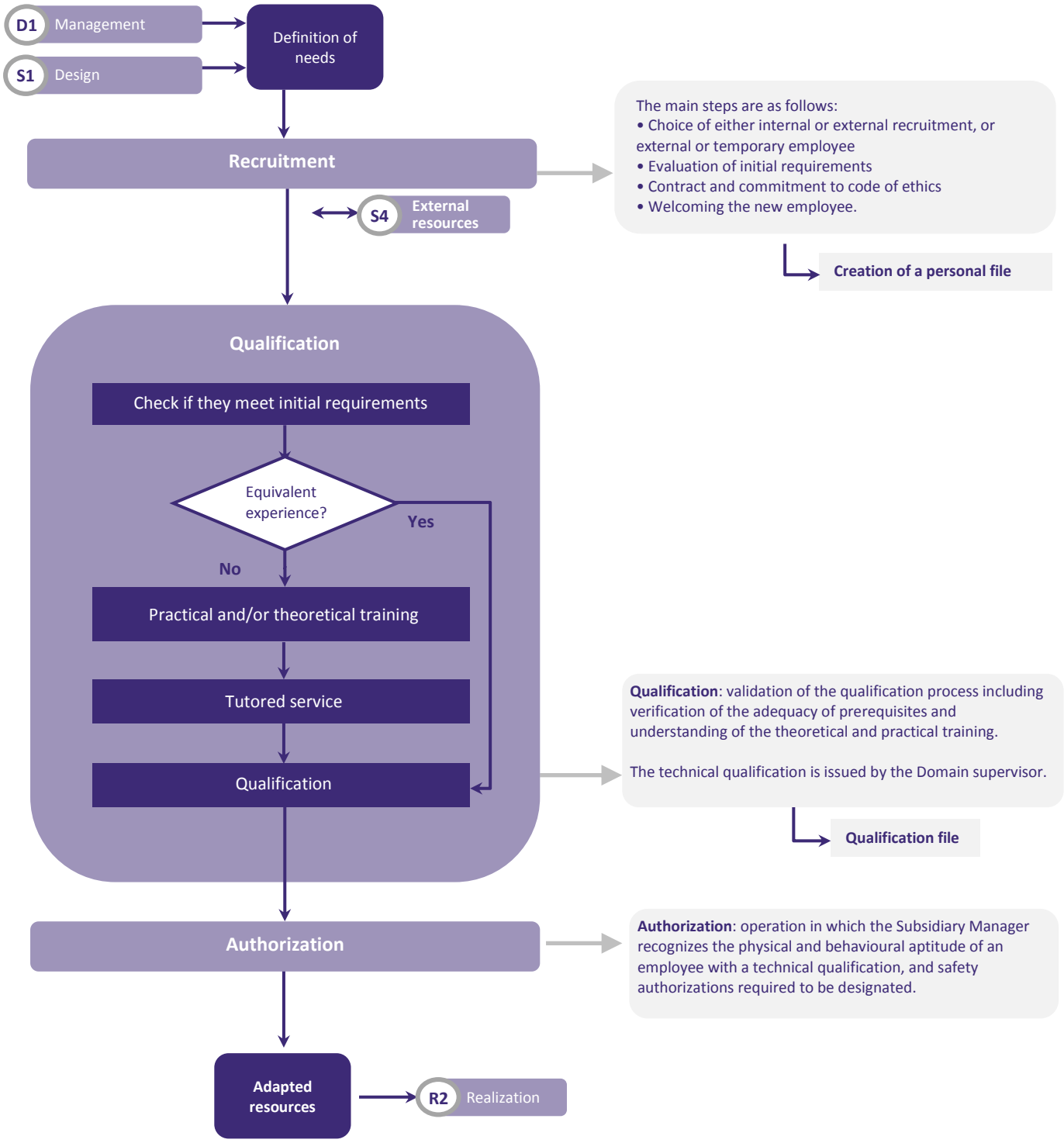
3.2 Human resources

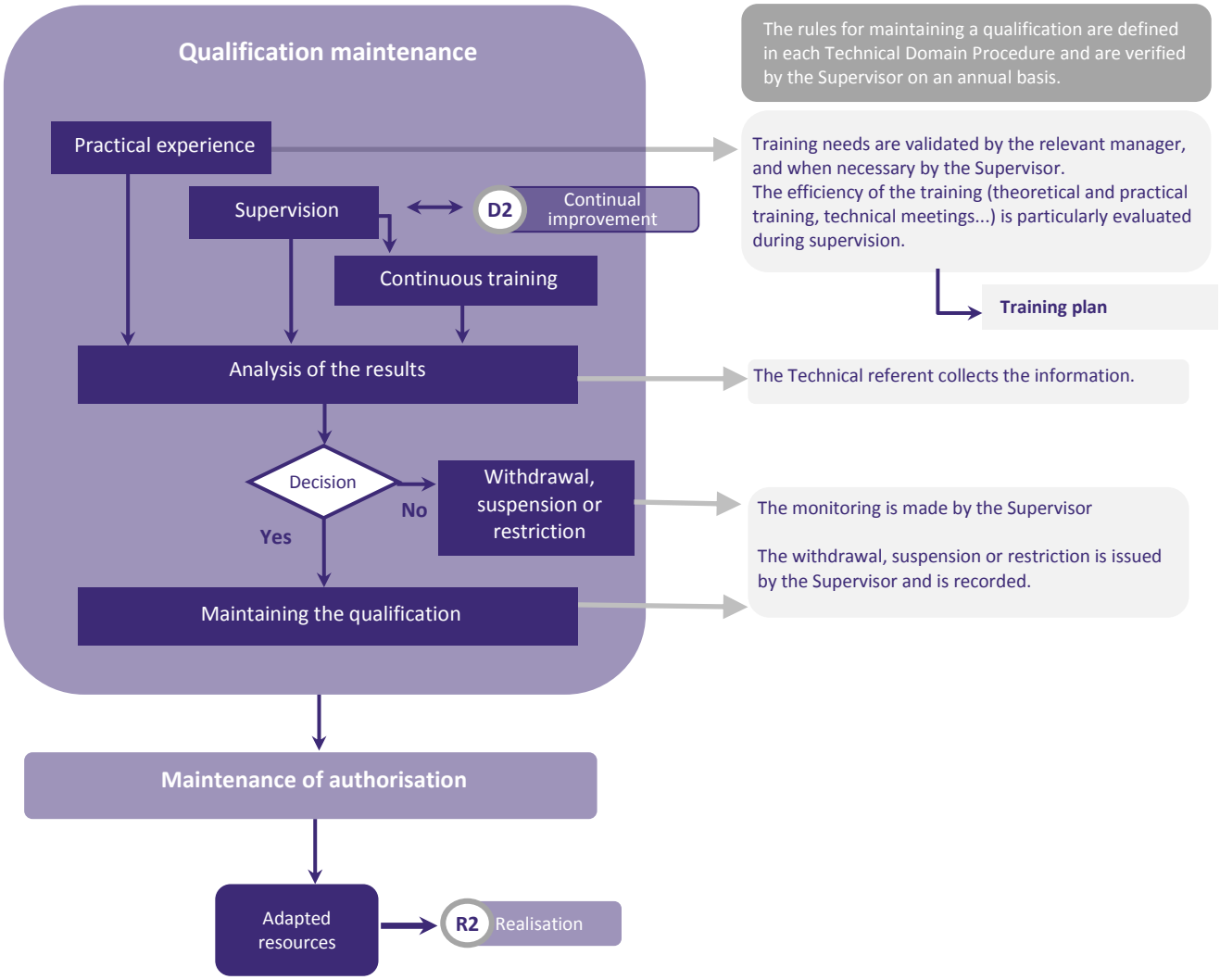
OBJECTIVE

Have the appropriate number of competent and qualified personnel to provide the services requested. Motivate, involve and train the personnel

PILOT

Human resources





THE TOOLS

The **Training plan** is determined annually on the basis of requirements and needs collected by the Human Resources Responsible, by subsidiaries and is approved by the DTO.

A **Personal file** is opened for each technical employee. It includes all records related to the pre-requisites, trainings, qualifications and authorizations, and a Resume.
The personal file contains confidential information and therefore the access to it is limited to the HR responsible and the Subsidiary Manager. All confidential data are safely stored.
The personal file is managed and kept up to date by the HR responsible. The necessary data are provided by the Supervisors, the Technical Referent, other concerned personnel or the employee himself.

QMP Human resources

3.3 Equipment

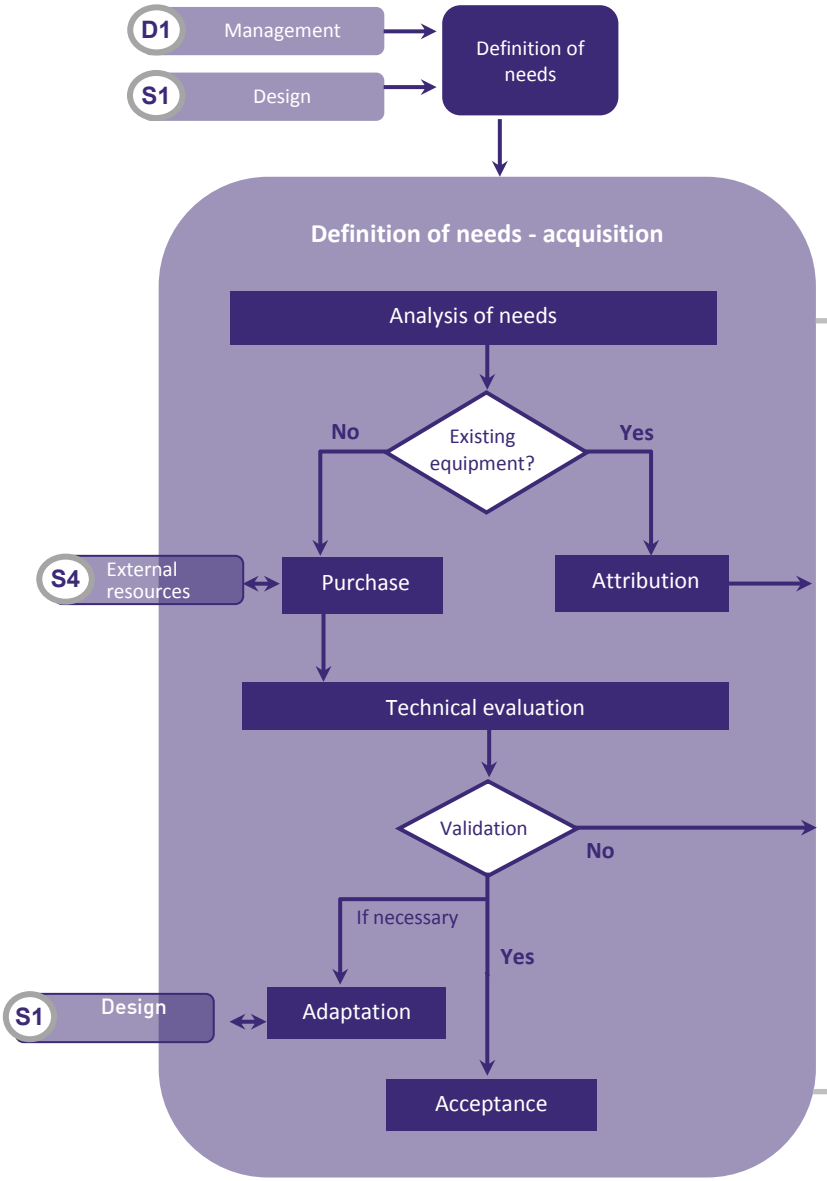
OBJECTIVE

Have the relevant and calibrated equipment and consumables

PILOT

DTO & Equipment/logistic coordinator

The provisions described apply to:
- Measuring or testing equipment (critical or non-critical), other inspection equipment
- Additional tools and accessories
- Critical consumables
- Computer or automated equipment and specific software



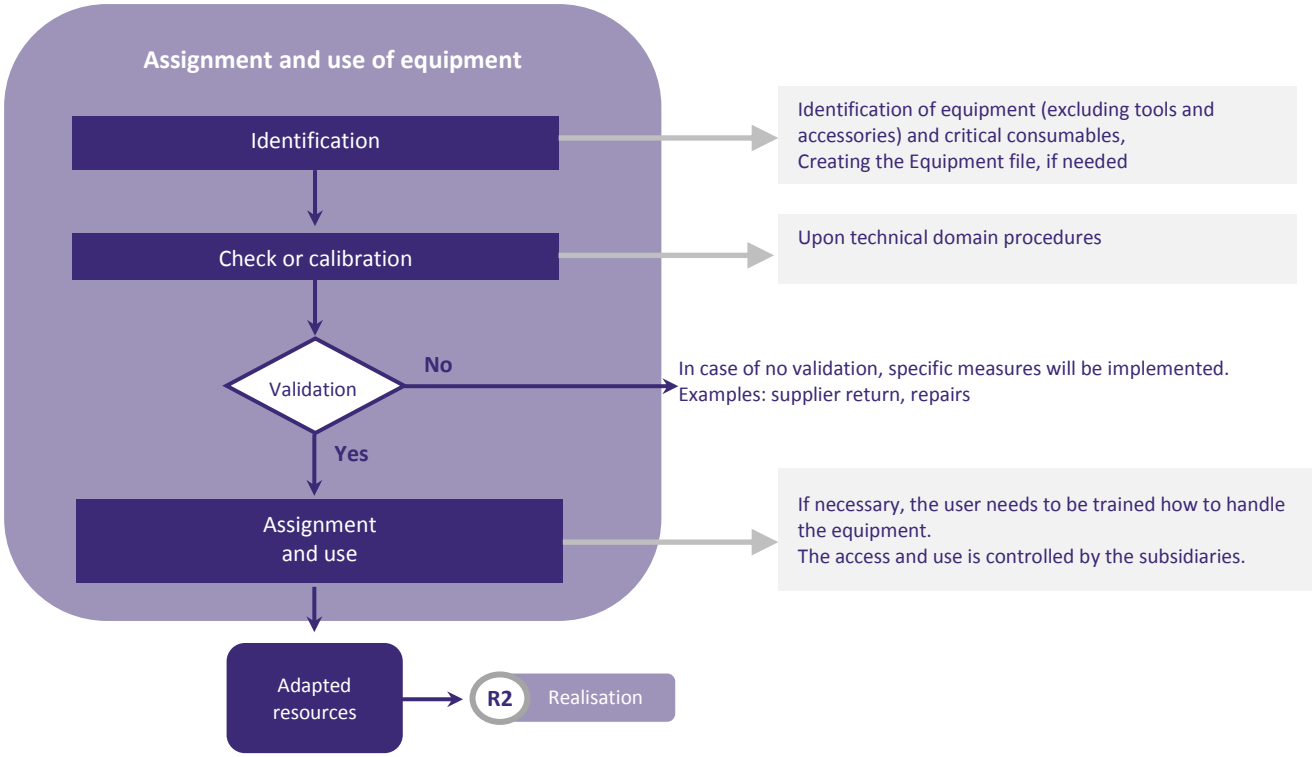
The analysis of needs allows us to determine:
- category (measuring, testing, control ...),
- the main characteristics of the equipment (type of measure, functions, operating ranges, grade...),
- the criticality of the equipment,
- the calibration program (calibration points, acceptance criteria, frequency, internal or external provider...),
- the maintenance program,
- in service checks if needed.

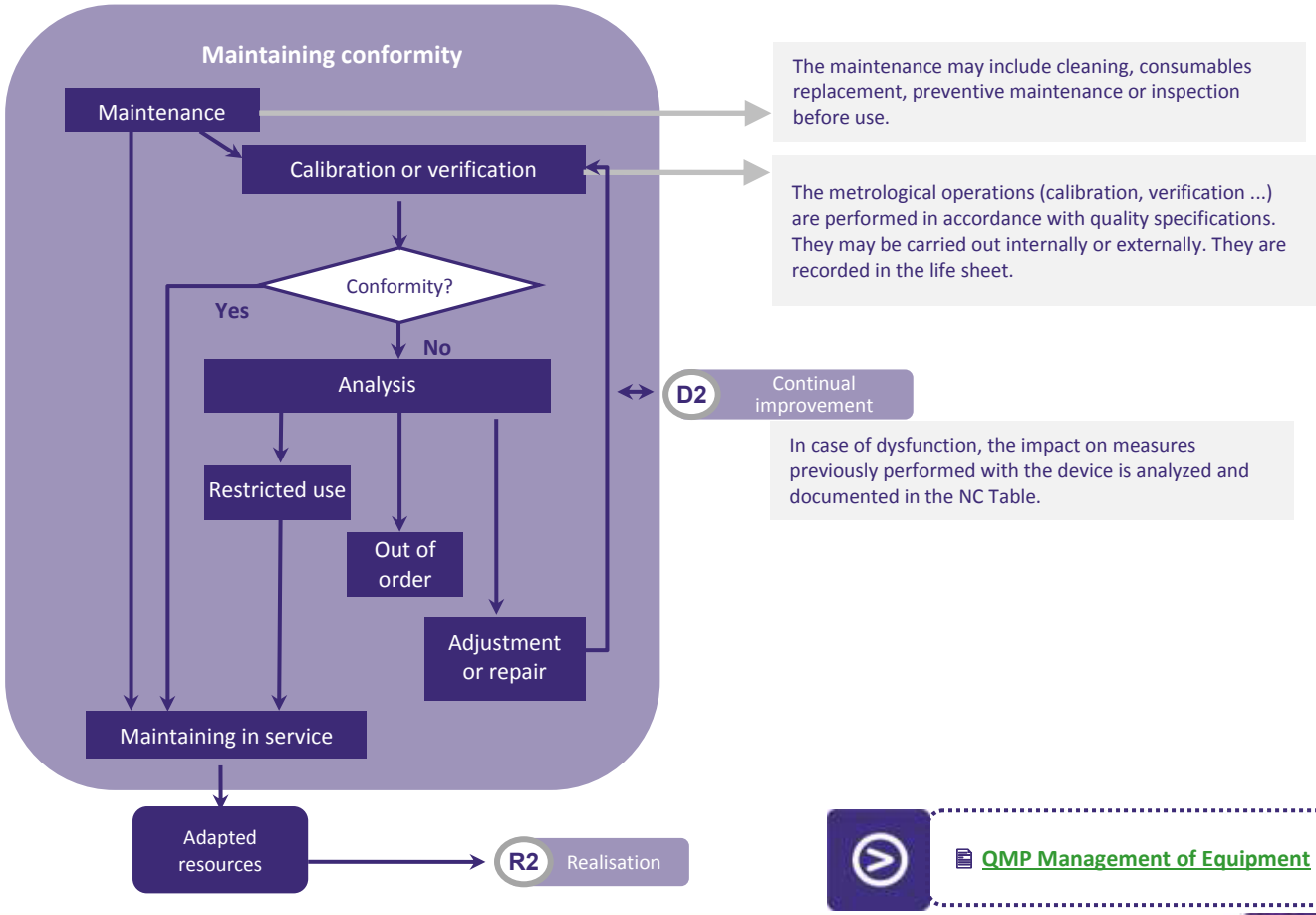
see section “Provision”

In case of no validation, the purchase ends here.

The equipment necessary for each service is defined in the relevant technical domain procedure.

QMP Management of Equipment





QMP Management of Equipment

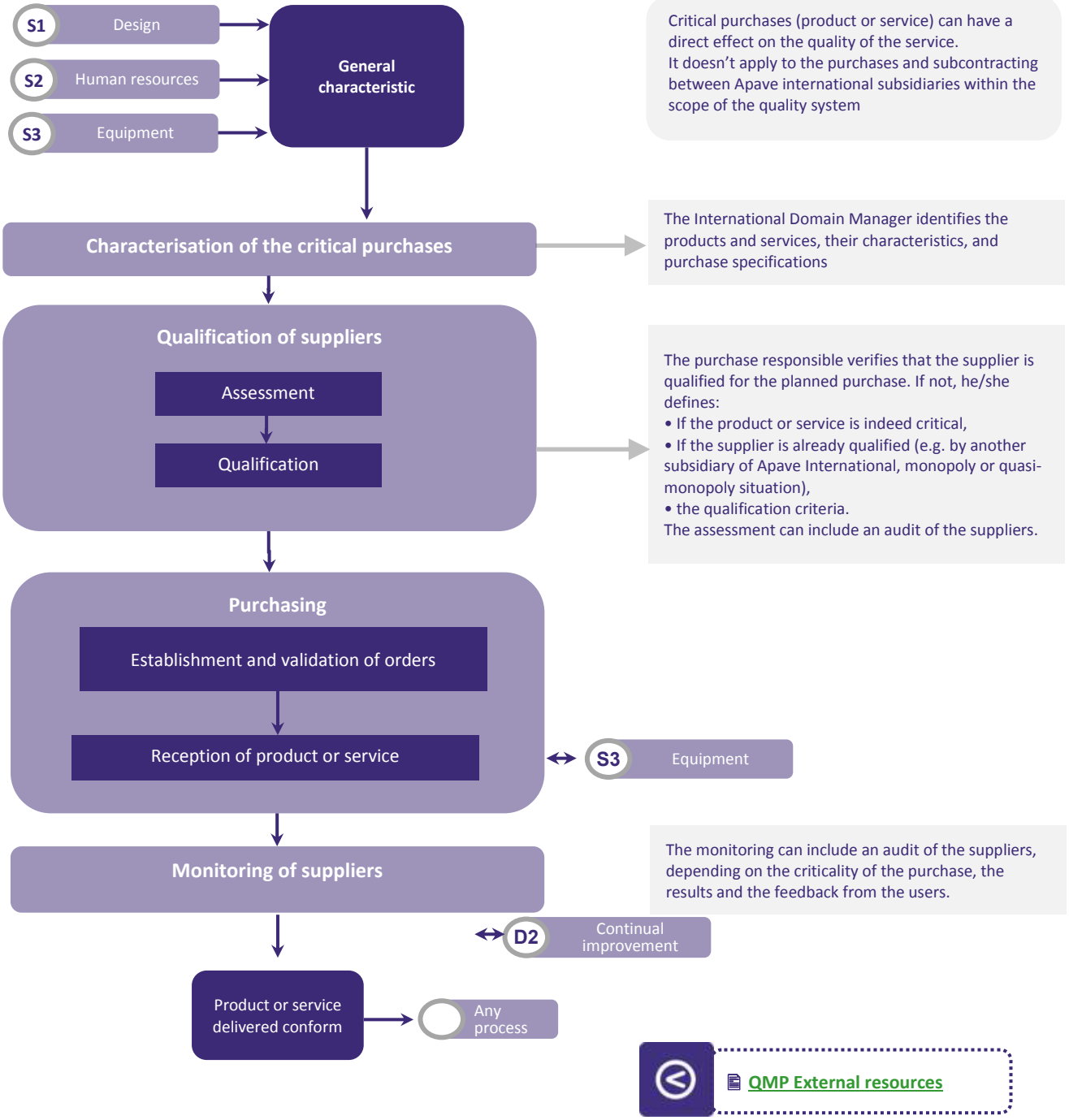
3.4 External resources

OBJECTIVE

Ensure that the purchase is controlled and done with approved, qualified suppliers.

PILOT

Purchase responsible



Critical purchases (product or service) can have a direct effect on the quality of the service.
It doesn't apply to the purchases and subcontracting between Apave international subsidiaries within the scope of the quality system

The International Domain Manager identifies the products and services, their characteristics, and purchase specifications

The purchase responsible verifies that the supplier is qualified for the planned purchase. If not, he/she defines:
- If the product or service is indeed critical,
- If the supplier is already qualified (e.g. by another subsidiary of Apave International, monopoly or quasi-monopoly situation),
- the qualification criteria.

The assessment can include an audit of the suppliers.

The monitoring can include an audit of the suppliers, depending on the criticality of the purchase, the results and the feedback from the users.

QMP External resources

04

Operations

4 • Operations

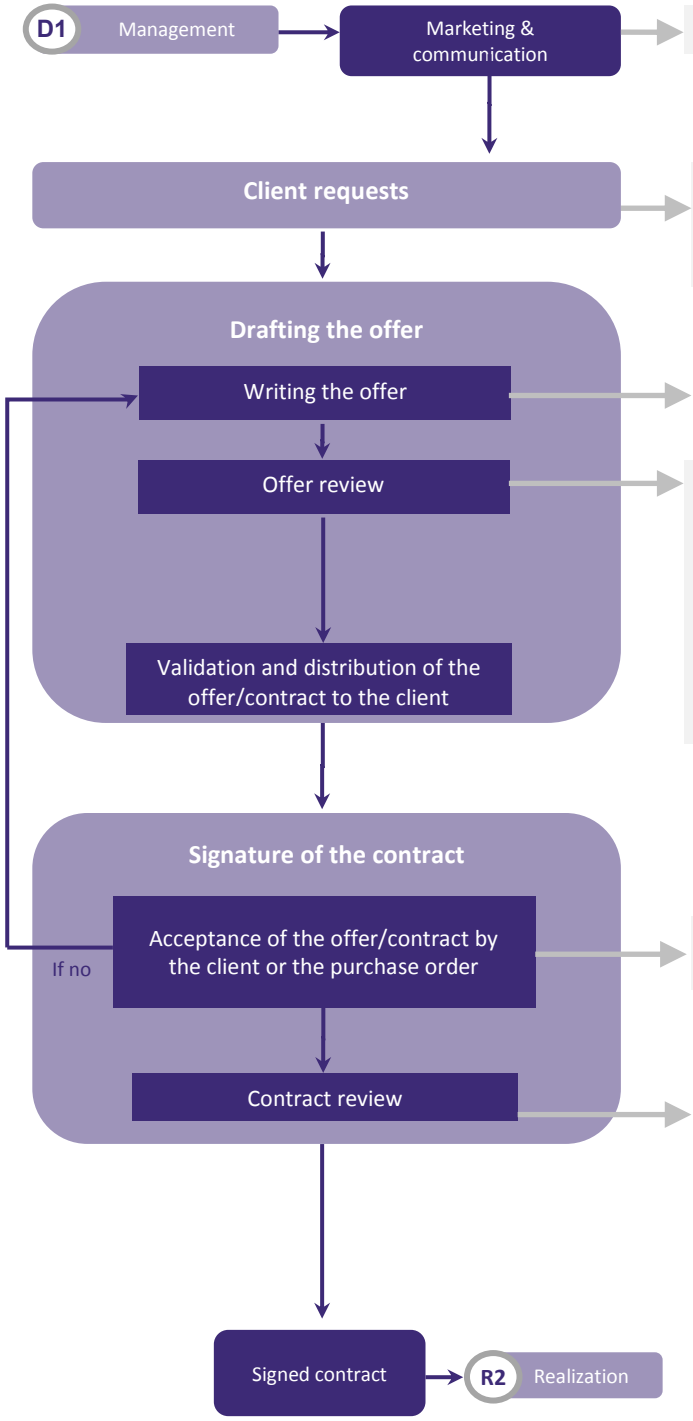
4.1 Commercial

OBJECTIVE

Transform the client's need into a contract, whilst meeting the company objectives.

PILOT

Subsidiary Manager
BL Manager



Customer focus and understanding the client's needs (c.f. § 1)

Analysis of the demand allows us to identify
- The client's requirements
- The product requirements (regulatory, standards, legal).

When the service involves subcontracting, the client will be informed.

The **offer review** involves validating the following elements:
- The client's expectations are clearly set out
- The service offered is feasible
  - The resources are suitable in quality, quantity and availability (respecting the timeframes)
  - Respect of the code of ethics

It is made by:
- a authorized personal, with the support of a competent person if necessary (tailored or specific product)
- or a special contracts committee

Before acceptance by the client, it is sometimes necessary to adjust the offer.

A **contract review** is performed for verifying whether the contents of the contract is compliant to the validated offer, as well as whether all proposed terms and conditions are acceptable for APAVE International.
The establishment of endorsements to the contract (modification to all or part of the terms of the contract) follows the same stages as the establishment of the contract.

QMP Commercial

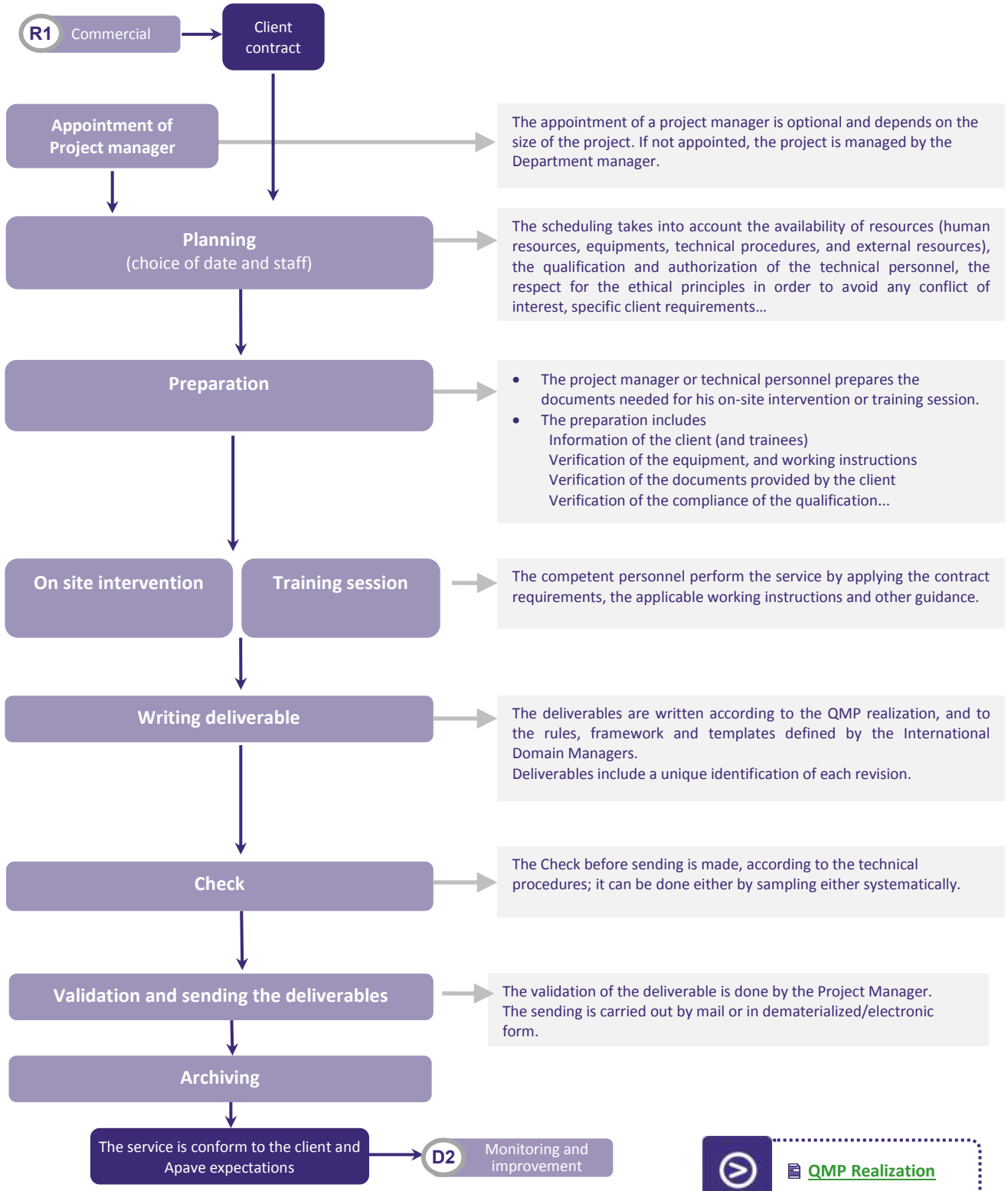
4.2 Realization

OBJECTIVE

Ensure the quality of the services and the satisfaction of the contract requirements

PILOT

International Domain Manager & Department manager



QMP Realization

Appendix - Compliance matrix

ISO 9001v2015

ISO 9001	Quality manual	PGQ / others documents	Process
4 Context of the organisation			
4.1 Understanding the organisation and its context	1.1		D1
4.2 Understanding the needs and expectations of interested parties	1.1		D1
4.3 Determining the scope of the quality management system	1.1		D1
4.4 Quality Management System and its processes	1.3		D1
5 Leadership			
5.1 Leadership and commitment	1.1	Quality Policy	D1
5.2 Policy	1.1	Quality Policy	D1
5.3 Organisational roles, responsibilities and authorities	1.1	QMP Organization /Organization chart	D1
6 Planning			
6.1 Actions to address risks and opportunities	1.1	Risk assessment table	
6.2 Quality objectives and planning to achieve them	1.1	Management reviews, and Process management table	
6.3 Planning of changes		Management reviews	
7 Support			
7.1 Resources	3		S2, S3, S4
7.2 Competence	3.2	QMP Human Resources – competency management	S2
7.3 Awareness	3.2	QMP Human Resources – competency management	S2
7.4 Communication	1.1	QMP Organization	D1
7.5 Documented information	3.1	QMP Control of documented information	
8 Operation			
8.1 Operational planning and control			
8.2 Requirements for products and services	4.1	QMP Commercial	R1
8.3 Design and development of products and services	3.1		S1
8.4 Control of externally provided processes, products and services	3.4	QMP External resources	S4
8.5 Production and service provision	4.2	QMP Realization	R2
8.6 Release of products and services	4.2	QMP Realization	R2
8.7 Control of non-conforming outputs		QMP Realization QMP Continual improvement	
9 Performance evaluation			
9.1 Monitoring, measurement, analysis and evaluation	1.4	QMP Continual improvement	D2
9.2 Internal audit	1.4	QMP Continual improvement	D2
9.3 Management review	1.3		D1
10 Improvement			
10.1 General	1.4		D2
10.2 Nonconformity and corrective action	1.4	QMP Continual improvement	D2
10.3 Continual improvement	1.4	QMP Continual improvement	D2