

QUALITY & OPERATIONS MANUAL



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QUALITY POLICY

Technical excellence is the foundation of our business.

We provide a range of custom expert services, including consultancy, development and evaluation, to customers in electronic commerce markets.

It is our policy to satisfy our customers by:

- Recognising their needs and working with them to achieve practical and effective solutions.
- Consistently delivering products and services to the highest standards compatible with their needs.
- Continually developing our staff and improving our processes to maintain our world-class skills.

INTRODUCTION

Overview

This organisation believes in providing high-quality products and services. To achieve this, we have implemented a Quality and Operations Management System (QOMS). The QOMS is a documented and integrated management system covering all aspects of our business.

This Quality and Operations Manual defines the objectives, policies, practices and responsibilities of the QOMS within this organisation. It also provides a map of the QOMS. It refers to, and is supported by, quality and operations processes. These in turn may refer to lower-level documents detailing specific areas of the QOMS.

Quality Policy

We formally record our commitment to quality in our Quality Policy which is included within this document.

We implement the Quality Policy through our QOMS, which is described in this document.

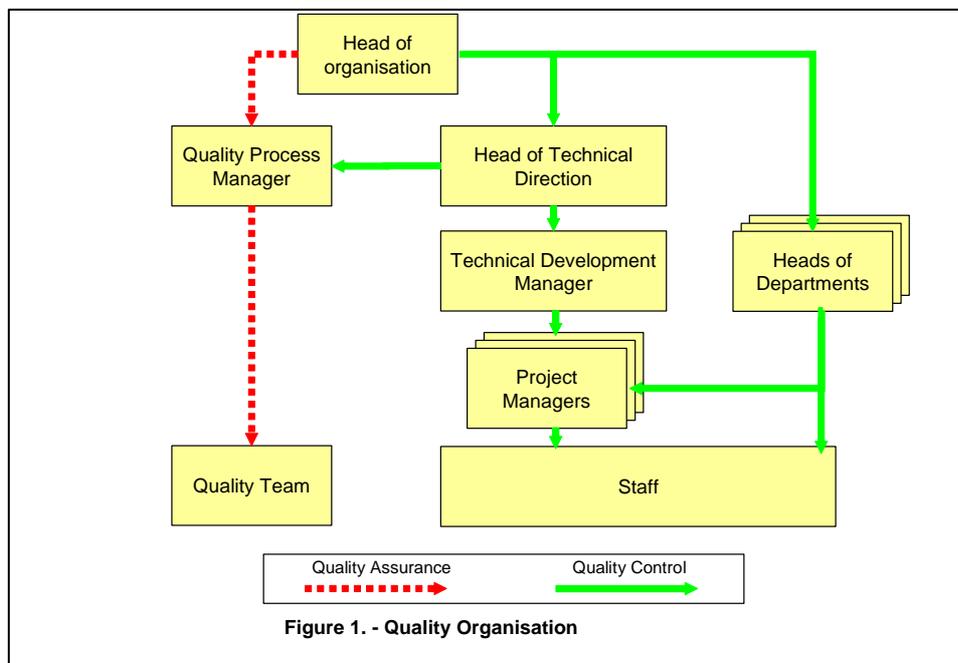
Scope of the Quality and Operations Management System

The QOMS is compatible with major international quality standards and applies to all areas of this organisation. We have designed it to meet the requirements of our Quality Policy.

QUALITY ORGANISATION

Organisation

Figure 1 shows the organisational structure for quality within this organisation. We have separated the responsibilities for quality control and quality assurance:



Quality Control

These are activities such as inspections, reviews and tests, which we carry out as part of our day-to-day work. We build them into all our processes. They confirm that the work is correct

and that we have completed it to the defined standards. Everyone in this organisation is responsible for quality control of their own work.

Quality Assurance

This independent activity provides confirmation that our processes are applied and effective. It involves auditing and reviewing the QOMS. This includes examining examples of quality control activities.

Management Responsibilities

There is a management representative responsible for all quality matters within this organisation. This is the Quality Process Manager (as identified within the organisational structure).

Head of this Organisation

The head of this organisation is responsible for setting the Quality Policy and for ensuring that systems are in place and resources are available to implement the policy.

Quality Process Manager

The Quality Process Manager (QPM) reports to the head of this organisation on quality assurance issues. He has the full authority to represent this organisation on all matters pertinent to the quality assurance of products and services, as established by the client's requirements, regulatory requirements and internal quality policies and processes.

The QPM has primary responsibility for structuring the quality programme, which involves the whole of this organisation, to ensure compliance with quality requirements.

Specifically, the QPM is involved in:

- Identifying, defining, documenting and improving processes and procedures throughout the organisation.
- Agreeing quality objectives.
- Overseeing the change control process.
- Control of quality audits throughout this organisation.
- Ensuring that the quality processes are followed.
- Promoting awareness of all quality matters within this organisation.
- Resolving any quality issues.

Head of Technical Direction

The Head of Technical Direction is responsible for directing this organisation's technical development activities, setting technical strategy and implementing the operational plan.

The Head of Technical Direction also has line responsibility for the quality team and for developing, maintaining and improving the QOMS.

Technical Development Manager

The Technical Development Manager is responsible for the effective day-to-day operation of the Technical Development team. This includes responsibility for:

- The development of products and services throughout this organisation.
- The quality of all products and services provided by the Technical Development department.
- Ensuring that all Technical Development personnel are aware of, and adhere to, the agreed and published QOMS.
- Reviewing the aspects of the QOMS pertinent to the Technical Development department and providing feedback to the QPM.

Heads of Departments

Heads of Departments are responsible for:

- The quality of all products and services provided by their department.
- Ensuring that all personnel are aware of, and adhere to, the agreed and published QOMS.
- Reviewing the aspects of the QOMS pertinent to their department and providing feedback to the QPM.

Project Managers

Project Managers are specifically responsible for the quality of the project deliverables. Their responsibilities include:

- Planning (including quality planning).
- Tracking and reporting.
- Managing resources.
- Conducting the work in accordance with the QOMS, as defined in the appropriate planning documents.

Staff

All staff are responsible for the quality of their day-to-day work. We train them accordingly.

We are committed to a policy of training all our staff to enable them to carry out their current duties correctly and in the most cost-effective manner, preparing them for future developments within the field of operation.

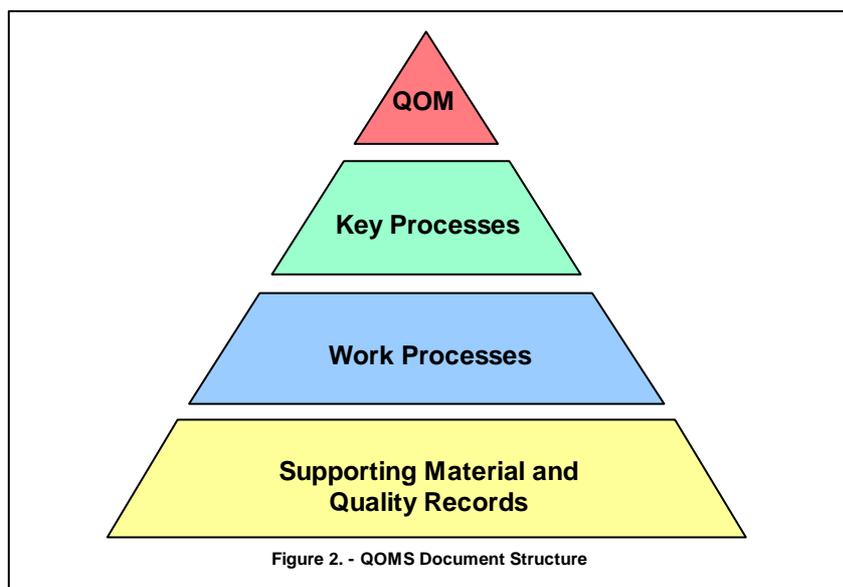
QUALITY SYSTEM

Overview

A definition of a Quality Management System is:

“Organisational structure, procedures, processes and resources needed to implement quality management.”

Figure 2 provides an overview of the QOMS document structure.



Quality & Operations Manual

The Quality & Operations Manual (this document) is the statement of this organisation's policy on, and commitment to, quality.

Processes

Processes define what activities are performed and by whom. They also define when, where and why they are performed. The personnel who perform the function are involved in documenting the process.

Within the QOMS, there are two types of processes documented:

- Key Processes - these are high-level, organisation-wide processes which are listed and defined later in this document.
- Work Processes - these define how the key processes are carried out.

Supporting Material

This complements the processes, typically defining in more detail how to carry out an activity described in a process. Working-level procedures form the majority of supporting material. Further examples include work instructions, user guides, checklists, forms and templates.

QOMS Indexing

The components of QOMS and their current versions are listed in an index. We maintain QOMS documentation in several media (e.g. paper documents, on-line documents, web pages). Whatever the medium, all QOMS components are subject to the controls defined by the Configuration Management key process. Through these controls and the published index, we ensure that only the correct versions of QOMS components are available for use.

Quality Records

Quality Records provide auditable proof that a process has been performed. They have a specified retention period and are readily available for inspection by an auditor. Examples include test and review records, meeting minutes, work plans, audit reports, completed checklists and sign-off sheets.

Quality Assurance Notices

Quality Assurance Notices (QANs) are definitions of policy and processes that all personnel must follow. QANs are a precursor to a formal change to, or production of, a process. They enable us to disseminate information as we establish it, before the formal re-issue of the requisite documentation. They have the formal approval of the QPM and Head of Technical Direction within this organisation.

QUALITY PLANNING

Top-Level Quality Plan

This identifies the quality objectives and levels applicable to all types of deliverables. It also defines the processes that are applied in the absence of any more specific quality planning.

Project Definition Document

We produce a Project Definition Document (PDD) for each project, which includes all planning for that project. The PDD defines the input and output requirements for each stage of the project, thus enabling the quality requirements to be met in terms that are measurable.

The PDD shows how the project will apply the Top-Level Quality Plan. It references the Top-Level Quality Plan and states any deviations from it.

QUALITY AUDITS

The QPM is responsible for establishing, documenting and implementing a programme of quality audits. These objectively evaluate the adequacy of the functions, systems and processes referenced in this manual.

The quality audit programme defines:

- The functions, systems and processes to be audited.
- The frequency of audits.
- The method of reporting findings and recommendations.
- The means for agreeing and implementing corrective actions.

Quality audits are carried out by approved personnel who are not directly responsible for the area being audited. They are conducted in accordance with the documented quality audit process and/or checklists.

Corrective actions to correct identified deficiencies are reviewed, agreed and implemented by management responsible for the area audited. An auditor verifies all actions taken to correct deficiencies before they are closed.

MANAGEMENT REVIEW

At least once each year, the QPM, head of this organisation, head of technical direction and other heads of departments conduct a review of the QOMS. This ensures its suitability and effectiveness in meeting our business needs. Management reviews are conducted in accordance with the QOMS Quality Assurance. They consider the findings of quality audits and measurements taken throughout the year. The QPM maintains records of such reviews. We use the results of these reviews to drive the continuous improvement of QOMS.

KEY PROCESSES

Figure 3 provides a conceptual view of the key processes in this organisation.

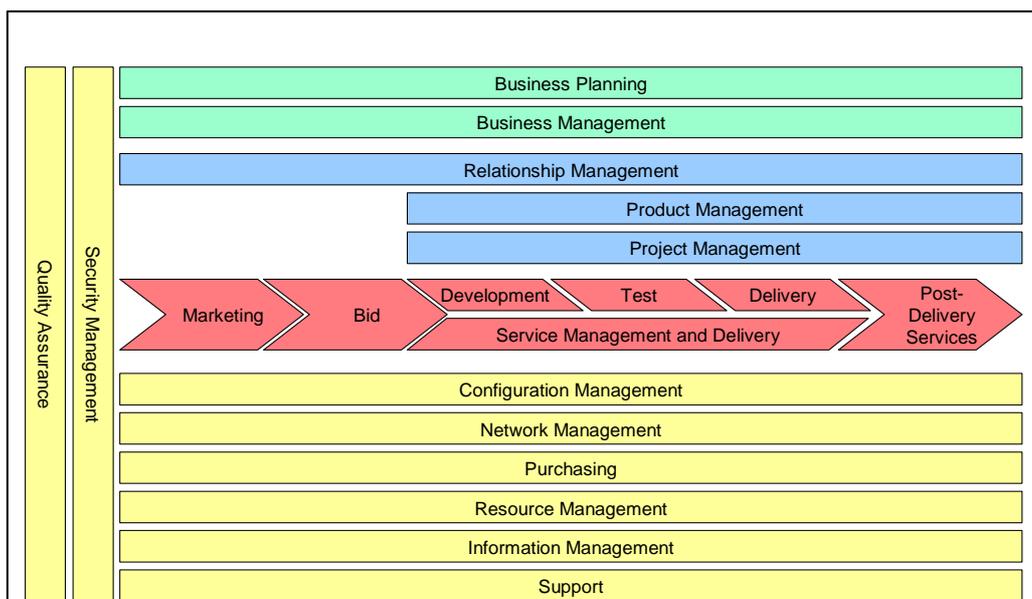


Figure 3. - Conceptual View of Key Processes

Business Planning

The aim of this process is to define and communicate the overall strategy for the organisation and to translate it into short-term objectives, operational plans and budgets.

To achieve these aims, we maintain our overall strategic plan by:

- Analysing the skills and strengths of this organisation.
- Conducting on-going market and competitor analysis.
- Analysing the requirements of our chosen marketplace.
- Defining products and services that meet the market needs.

We agree our strategy with our investor and communicate it to our managers and staff.

In response to our agreed strategy, we create an annual operational plan by:

- Producing an annual statement of direction for the next calendar year.
- Translating the above into relevant targets, budgets and resource requirements.
- Identifying key results areas, key tasks, success criteria and performance standards.
- Allocating responsibilities for achieving the above.
- Agreeing a monitoring approach and defining quarterly milestones.

As part of the annual business planning, we update the organisation strategy document. We include full explanations of any changes to long-term policy.

Business Management

The aim of this process is to monitor and control the day-to-day running of this organisation against the operational plan and budget. It includes regular management meetings, reports and reviews. It is our policy to employ prudent and effective controls on budgets and expenditure in-line with accounting procedures agreed with our investor.

We monitor performance against our strategy and plan by:

- Regularly reviewing objectives against market movements and needs.
- Gathering current status information and forecasts on a monthly basis.
- Consolidating the information and performing a gap analysis against the plan quarterly.
- Producing formal action plans to close any gaps.

Projects and services that we provide are subject to initiation and authorisation procedures. These ensure that all work undertaken is within the agreed parameters defined in the operational plan.

Relationship Management

The aim of this process is to consider all our dealings with a given customer as a whole so that we focus on their business and its needs.

To achieve these aims, we:

- Proactively research and analyse all potential customers' needs and respond quickly to all requests for information.
- Maintain up-to-date information on all our customers.
- Contact potential customers to offer appropriate products and services.
- Initiate our formal bid process when we make a specific offer.
- Appoint a Relationship Manager, for each customer, who represents that customer's interests internally and acts as a central point of contact.
- Request feedback from customers and implement improvements wherever possible.
- Respond quickly to customers' complaints and identify and address their underlying causes.

Product Management

The aim of this process is to determine when, where and how to develop items to meet the needs of the market in general, as opposed to a specific customer. It includes:

- Investment appraisal.
- Risk assessment.
- Development.
- Launch.
- Maintenance.
- Support.
- Enhancement.
- Withdrawal.

We describe our product offerings in marketing material which is supported by full specifications of the product functions and capabilities.

We define a strategy and business plan for each product. We plan and schedule product developments and enhancements and produce them to written specifications. As part of our product offering, we agree the level of service that we will provide for maintenance and support.

We conduct product developments and enhancements as projects. They are subject to the project controls defined by the Project Management process.

Project Management

The aim of this process is to plan, execute and manage our work so that we anticipate and avert problems. This enables us to deliver to time, cost, quality and specification. This process applies to custom studies and developments as well as product developments, which we run as projects. It provides accurate information to support central resource planning and financial management.

For each project, we:

- Appoint a Project Manager.
- Plan, schedule and cost the work.
- Review and approve the plans and authorise the work to proceed.
- Maintain and update the plans where necessary.
- Identify and manage risks proactively.
- Monitor and report progress against the plans.
- Check that all the required items have been completed and delivered prior to conclusion of the work.
- Record lessons learned whilst carrying out the work.

Marketing

The aim of this process is to understand our chosen market, to make potential customers aware of our products and services, to identify opportunities for sales and to progress those opportunities through to proposal and contract. Through this process, we also provide a coherent and consistent approach to brand management, internally and externally.

To achieve these aims, we:

- Develop and implement an annual PR plan to raise and then maintain our profile in our chosen markets.
- Produce high-quality marketing collateral to support our sales effort.
- Perform on-going market research.
- Seek to provide maximum value for money from all of our activities.

Bid

The aim of this process is to make specific proposals to customers for individual pieces of work including projects, products or services. The process includes the identification of requirements, cost estimation, risk assessment and pricing.

For every bid, we:

- Appoint a Bid Manager.

- Make a positive bid / no-bid decision.
- Ensure that the customer's requirements are well defined and are communicated and understood within the bid team.
- Plan the bid, obtaining inputs from those involved in technical, commercial and delivery aspects.
- Record the bid logic including the plan, approach, key decisions and approvals.
- Review the customer proposal, together with the methods used to derive it, prior to submission.
- Respond quickly to customer queries regarding the proposal.
- Review won and lost bids to learn from them.

Development

The aim of this process is to design and develop software and systems. This may be in response to a specific customer requirement or more general market requirements identified through the Product Management process.

We define the specific approach to each development project in its Project Definition Document.

Before development starts, we ensure that there is a defined customer requirement in place. This may be provided by the customer or developed by us.

For all development work, the Project Manager is responsible for ensuring that:

- We define and follow standards for the production of all code and documents.
- All documents are reviewed prior to being used or signed off.
- Prior to sign-off, reviewed documents are only used by those involved in the review.
- Prior to the start of code development, we review the design to confirm the approach.
- We conduct walkthroughs on completed code to confirm the details of the implementation.
- Developers perform unit testing of code modules and record the tests and test results.
- Prior to the start of testing, we define the test strategy and plan the testing.
- Specifications for independent testing are produced from documented design specifications.
- Individuals independent of the development process perform system testing and record the tests and test results.

Test

The aim of this process is to test independently the operation of software, hardware and systems. We provide this service to this organisation's projects and directly to customers.

We respond to all testing requirements with a test plan and test strategy. These are agreed with the Project Manager. We specify and record the tests and their results in line with the agreed test plan.

Delivery

The aim of this process is to ensure that the products we deliver to external and internal customers are on-time and meet their defined quality requirements. Before any item we produce is released externally, we confirm that it meets our own quality standards as well as our customer's requirements.

To achieve these aims, we:

- Actively monitor the progress of products against target dates prior to delivery.
- Ensure that all appropriate quality, configuration and release records are in place and correct before delivery.
- Independently review all deliverable documentation for correctness and conformity to appropriate standards.
- Wherever possible, independently compile, install and execute software products in an environment that the customer may reasonably be expected to use.
- Independently confirm the machine readability of all electronic delivery media.
- Take immediate remedial action in all instances of failure to achieve any of the above.

Service Management and Delivery

The aim of this process is to provide services to our customers. Services fall into two categories:

Pre-Defined Services

These are services where we carry out a pre-defined series of tasks. Typically, these services relate to conformance testing against external standards.

For pre-defined services, we maintain standard processes and templates. We build quality controls into these. We provide estimates or fixed-price quotations, based on standard estimating and pricing models. These enable us to respond quickly to customer enquiries.

Custom Services

These are services which are specifically designed to meet our customer's needs.

For custom services, we establish the customer's requirements (including quality requirements). We then match those requirements to our capabilities and provide estimates or fixed-price quotations based on our current experience.

Post-Delivery Services

The aim of this process is to provide warranty, support and maintenance services to customers once they have accepted initial delivery of the product.

To achieve these aims, we:

- Provide all recipients of our products with necessary support and relevant information concerning those products following delivery.
- Provide sufficient details to enable customers to communicate to us any relevant observations concerning the products.
- Manage customers' observations systematically through to an agreed conclusion.

Configuration Management

The aim of this process is to ensure that we uniquely identify Configuration Items (CIs), which may comprise software, systems and documentation sets, and control changes to them. We also ensure that components of CIs and the systems used to generate them are identified and controlled.

We identify, register and maintain CIs in a secure and controlled environment. For each CI, we maintain a history of its evolution that enables us to replicate any version.

Network Management

The aim of this process is to maintain the IT infrastructure such that it adequately supports the business in a cost-effective and secure manner.

We provide an efficient, up-to-date managed service that is secure and supports the development needs of our business. We maintain a level of security commensurate with similar businesses.

Purchasing

The aim of this process is to ensure that the organisation buys from sources which consistently supply fit-for-purpose goods at minimum cost. It includes defining what is to be purchased, selecting the supplier, placing the order, checking the received goods and monitoring the performance of suppliers.

For every purchase, we:

- Define the purchase clearly.
- Solicit supplier quotation(s).
- Review potential suppliers and quotations to achieve optimum purchase in terms of value for money, technical compliance and availability.
- Obtain appropriate internal approvals prior to purchase.

- Perform timely assessment of delivered goods to establish suitability and subsequent acceptance or rejection.

Resource Management

The aim of this process is to balance resources with requirements. This ensures that sufficient resources are available to perform the work in hand and undesirable slack is eliminated. This process covers human resources and space / equipment (other than that covered by Network Management).

We maintain a team of highly qualified and well-motivated staff to meet the perceived needs of our business.

Through our focused recruitment process we identify appropriately skilled staff to meet our needs. We recruit them into the team in a timely fashion, within the limits set by the Operational Plan.

We make training opportunities, where justified by business need, available to all staff.

We supply accommodation, office furniture and other equipment appropriate to the needs of our staff. We provide a safe and efficient working environment that complies with our defined Health and Safety at Work policy.

Information Management

The aim of this process is to support staff by ensuring the timely delivery of information relevant to the business needs of this organisation. This involves the identification, acquisition, organisation, storage and dissemination of external and internal information.

Security Management

The aim of this process is to implement our Security Policy. The objective of our Security Policy is to ensure that assets and operations are effectively secured for foreseeable risks.

It is our policy to ensure that security controls are, and will remain, consistently of the highest order to protect the confidentiality, integrity and availability of information, services provided and products developed.

Quality Assurance

The aim of this process is to provide confirmation to this organisation management and customers that the QOMS is operating correctly and efficiently. This helps us to ensure that we achieve the aims of the Quality Policy in a cost-effective and efficient manner.

To achieve these aims, we:

- Continually improve our working processes and procedures.
- Believe in and promote the purpose of, and individual responsibility for, quality.
- Provide staff with quality process training and information.
- Maintain records that demonstrate that we have applied the QOMS.
- Confirm that our operations are compliant with the QOMS through regular audits and reviews.

Support

This key process contains work processes which support a number of other key processes. They apply across the whole organisation. These include Change Control, Document Control and the Review process.

ABBREVIATIONS

CI	Configuration Item
IT	Information Technology
PDD	Project Definition Document
PR	Public Relations
QAN	Quality Assurance Notice
QOM	Quality and Operations Manual
QOMS	Quality and Operations Management System
QPM	Quality Process Manager

- End of Document -