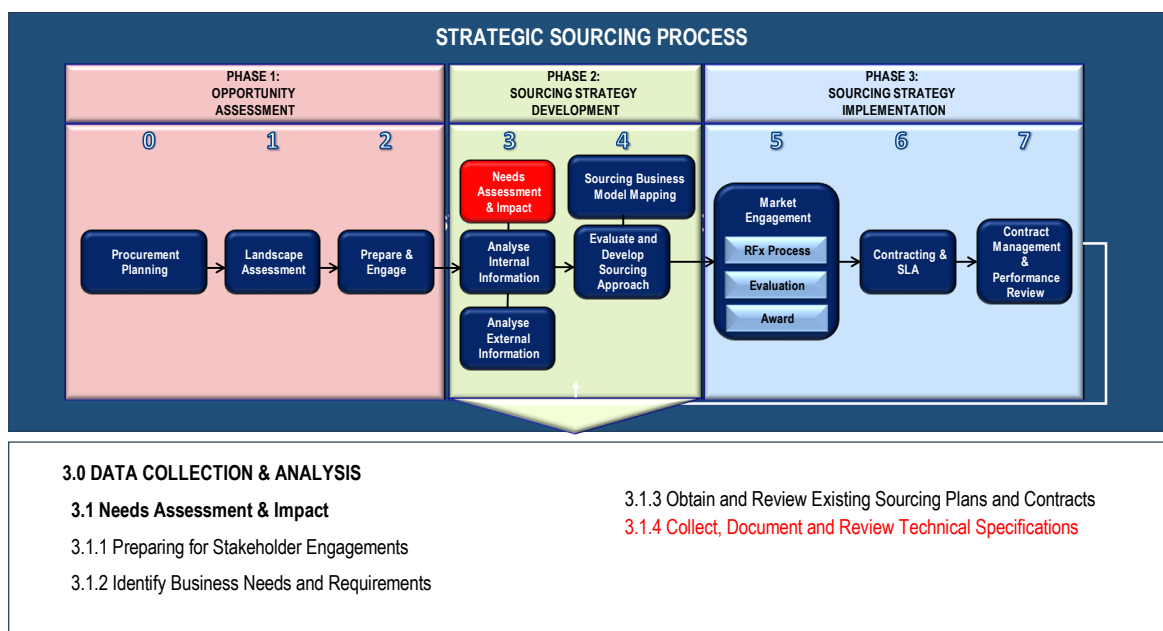


Using this guide

This guide accompanies the National Treasury's Strategic Procurement Framework (SPF) for Strategic Sourcing in the Public Sector. For more information, visit the National Treasury website at <http://ocpo.treasury.gov.za/>. The SPF can be found here: http://ocpo.treasury.gov.za/Resource_Centre/Documents/1A.%20Strategic%20Procurement%20Framework.pdf

COLLECT, DOCUMENT AND REVIEW TECHNICAL SPECIFICATIONS



1.0 Introduction

- i. The collection, documentation and review of data helps to develop and write the specifications that promote the broadest possible competition.
- ii. Specifications should be based on relevant performance and functional requirements rather than design or descriptive characteristics.
- iii. The following good practice guides and templates apply to this stage:
 - a. Collect, document, and review current specifications
 - b. Minimum principles when preparing specifications

- c. Determining flexibility of specifications
- d. How to write a specification
- e. Preparing specifications
- f. SERVICE: statement of requirements (template)
- g. GOODS: statement of requirements (template)

1.1 The objective

- i. To identify and review all current specifications.
- ii. To develop new specifications if required.
- iii. To provide practical advice for those writing specifications.

1.2 Output

- i. Unbiased specifications

2.0 Good practice guides

2.1 Collect, document, and review current specifications

- i. Determine and document current functional, technical and quality specifications.
- ii. Note that specifications may include qualitative issues driven by departmental needs, e.g. continuous improvement or reduced time to market.
- iii. Include any assumptions regarding the flexibility and potential change of the specifications.
- iv. Specifications must be prepared for all goods and services that will be procured to ensure uniform standards and a solid basis for the objective evaluation of supplier submissions.
- v. Where no specifications exist, it is the responsibility of the user departments to produce them.
- vi. Beware of over-specification. Over-specification (gold-plating) is one of the most difficult aspects of TCO (Total Cost of Ownership) to determine and control.

- vii. It is often necessary to interview the stakeholders to determine the flexibility of the specifications. There are three options for dealing with specifications:
- a. Consolidate disparate demand to one "standard".
 - b. Eliminate over-specified material (focus on market-available goods or services).
 - c. Revisit application and usage (determine the rationale behind the specification).

2.2 Minimum principles when preparing specifications

- i. Standards and specifications must promote the broadest possible competition, while the performance requirements must ensure that the critical elements of performance are achieved.
- ii. Standards must originate from credible institutions such as the South African National Standards Authority, International Standards Organisation or institutions accredited by the South African National Accreditation System.
- iii. Specifications should be based on relevant performance and functional requirements rather than design or descriptive characteristics.
- iv. Reference to a particular trademark, trade name, patent, design or brand should be avoided. If there is no other way of describing the requirement and you refer to a trademark then you must include the words "or equivalent".
- v. Specifications should be clear and precise and should avoid duplication of the same service or performance requirements.
- vi. All specifications must be endorsed by the relevant Cross Functional Sourcing Team (CFST) and Bid Specification Committee (BSC) before submission to the market.

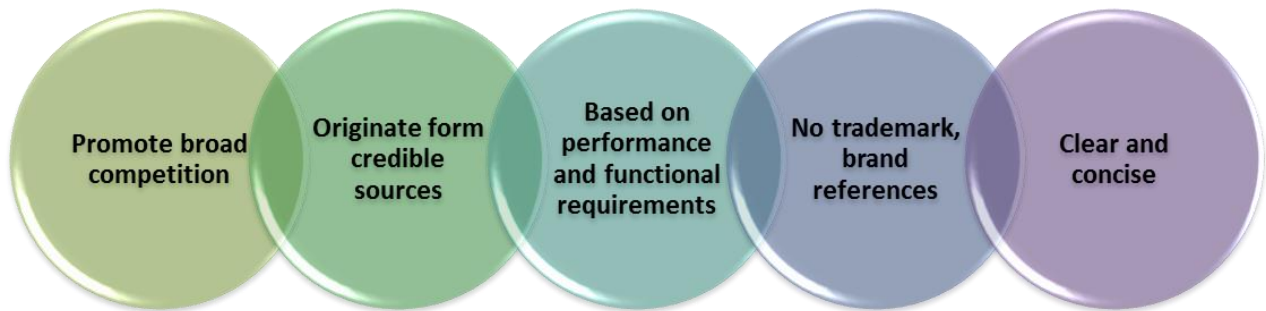


Figure 1: Developing a Specification

2.3 Determining flexibility of specifications

- i. Specifications generally fall into three categories:

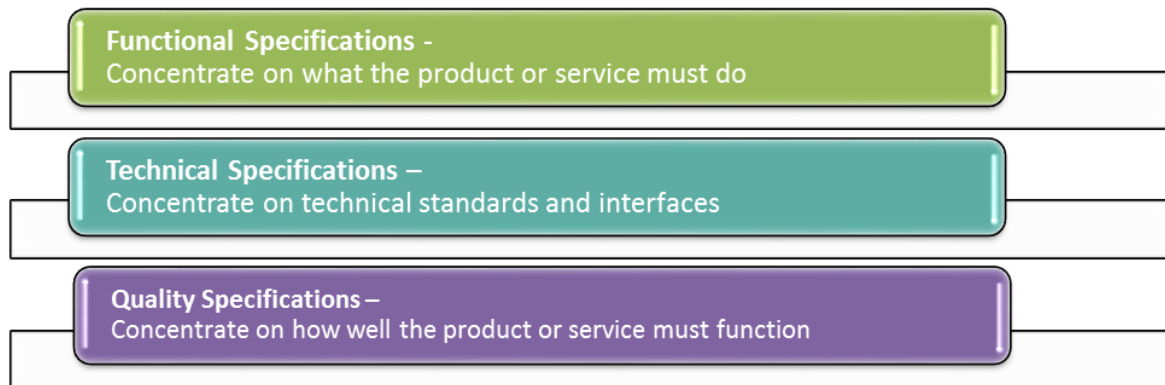


Figure 2: Categories of Specifications

- ii. When determining the flexibility of specifications, determine from your stakeholders:
- Whether the specifications can change;
 - Which specifications can change;
 - By how much the specifications can change;
 - What process is to be followed to change the specification;
 - Who is responsible for, and can therefore change the specification; and

- f. Who must know about a change to the specifications?
- iii. Sources of information:
 - a. Obtain from the appropriate sourcing representative.
 - b. Request suppliers to send technical, functional, and quality specifications for the product/service. Marketing brochures are often adequate.
 - c. Solicit industry-specific examples of how the commodity is used.
 - d. Request end-users to send specifications they have, as they are the regular users of the commodity.

2.4 How to write a specification

- i. When developing specifications, collaborate closely and continuously with stakeholders, including the specification writer, technical experts, specialists, and end-users of the goods and/or services.
- ii. Consider a phased approach for more complex procurements. Begin with a high-level Expression of Interest (EOI) or Request for Information (RFI) in the initial stages. As the process progresses to short-listing or limited market approaches, enhance the specifications to provide more detailed requirements.
- iii. Standardize the format of specifications and aim for uniformity where possible. This practice can help minimise costs associated with the market engagement process.

Where external consultants are used to facilitate the development of a specification, they must declare any actual or potential conflict of interest and that they are fully aware of the National Treasury procurement regulations and the core principles supporting these regulations.

2.5 Preparing specifications

- i. Use this guide to ensure consistency in both content and format of specifications, saving valuable time in market preparation.
- ii. Number each requirement for easy referencing during market engagement and contract management.

- iii. The amount of detail in the specifications should reflect the complexity of the requirement and the nature of the procurement.

Heading	Consideration	Inclusion
Title	Must indicate the title of the procurement and the invitation reference number.	Essential
Table of contents	Include a table of contents if the specification is lengthy or complex.	Recommended
Introduction	Briefly explain the requirement and the context of the requirement. e.g. the application, purpose or function of the product required.	Recommended
Scope	<p>The scope is a summary of the requirements specified. It may cover:</p> <ul style="list-style-type: none"> • A high-level statement of what is required, e.g. Development; implementation, installation, maintenance, upgrade or a combination of these; • Anticipated demand for the period of the contract; • Any goods and/or services the supplier is not required to provide which might otherwise normally be considered part of the requirement; and • The term of the contract. <p>A full description of each element summarised in the scope should be included in the 'Statement of Requirements.'</p>	Essential
Background	<p>Information may include:</p> <ul style="list-style-type: none"> • The implications for the users of implementing the solution; • An outline of the research which has been undertaken; • What options (if any) have been considered; • What options have been dismissed and why; • How the requirement relates to other requirements; and 	Essential

Heading	Consideration	Inclusion
	<ul style="list-style-type: none"> Acquisitions, whether already purchased and implemented or planned for in the future. 	
Other documents	<p>A specification may refer to other documents to avoid duplicating other material. The specification must contain an attachment listing each document and how to obtain copies if not appended to the specification.</p> <p>Documents most commonly referred to are:</p> <ul style="list-style-type: none"> Other specifications Standards documents Reference publications Codes of practice Acts of parliament Government directives <p>By referencing a document, they are legally incorporated into the specification. If only part of a document is relevant, then refer to that part only.</p>	Optional
Service conditions and environmental factors	<p>If the physical environment in which the required products will operate or be located will affect the output, design or performance, the specification must explain those location/ environmental conditions.</p> <p>If there are limitations imposed by users, the specification must explain what those limitations are. e.g. limited access to and within a building, or compliance with the VPS code of practice if based on-site.</p> <p>Environmental and ergonomic factors may include:</p> <ul style="list-style-type: none"> Operating and storage conditions; The need for interchangeability or compatibility with existing equipment, systems, etc.; Availability of energy and other services; Intended users of the product and their ergonomic requirements; Personnel safety aspects; and Servicing or maintenance requirements or limitations. <p>Also, detail any particular environmental requirements (e.g. the recovery and recycling capability of goods after their useful life), and encourage suppliers to put forward environmentally friendly ideas.</p>	Optional

Heading	Consideration	Inclusion
Statement of Requirements	<p>The statement of requirements should contain:</p> <ul style="list-style-type: none"> • A description of the outputs; or • Functionality and performance requirements; and • Detail the performance measures and benchmarks that will be monitored during the period of the contract. <p>These measures may need further negotiation with the successful supplier before they become contractual commitments.</p> <p>Statements of requirements can vary significantly in scale and complexity, from a small once-only consultancy to a complex set of requirements intended to cover major outputs of an organisation.</p> <p>The requirements for goods and services can be similar however there may be specific matters for consideration in the procurement of goods and the procurement of services. Refer to the following for guidance:</p> <ul style="list-style-type: none"> • Appendix 1 - Statement of requirements for goods • Appendix 2 - Statement of requirements for services 	Essential
Technology, systems and management techniques	<p>State where the organisation expects improvements in the use of technology, systems and other management techniques. Suppliers should be encouraged to provide innovative solutions when making offers.</p> <p>Data management and the management of Intellectual property should be identified if applicable. Data management should also be considered incorporated into the record management strategy.</p>	Recommended
Records management	<p>Detail any record management requirements. Record management includes the creation and control, storage, security, access and disposal.</p> <p>Specifications need to ensure:</p> <ul style="list-style-type: none"> • Full and accurate records of the activity are created • Ownership and custody of records is clear • Records are not disposed of without proper authorisation • Government access to records is assured and • Records are stored appropriately and kept secure. 	Essential

Heading	Consideration	Inclusion
Quality requirements	Detail appropriate quality assurance processes to be undertaken by the supplier.	Recommended

Table 1: Preparing Specifications

3.0 Templates

3.1 SERVICE: statement of requirements

Appendix 1 – SERVICE: statement of requirements

The statement of requirement for **service-orientated procurement** should detail the following:

- Outputs to be delivered;
- Performance measures and targets;
- Contract management requirements;
- Sale of assets and transfer of personnel (if applicable); and
- Transition process from and to another service provider (if applicable).

Outputs	<p>Output must be:</p> <ul style="list-style-type: none"> • one or more services (not activities and associated products) provided to customers; • measurable and achievable within a specified time frame; • significant to the achievement of government policy objectives. • Having to specify and measure outputs and their costs more precisely, will lead to: <ul style="list-style-type: none"> ○ A greater focus on customer needs; ○ More efficient and effective use of resources; ○ Clearer accountability of suppliers and organisation managers for their performance; ○ Unit costing of outputs (time sheets or deliverable output); ○ Benchmarking of output performance measures; and ○ A climate of continuous improvement.

	<ul style="list-style-type: none"> • By defining the outputs clearly in the specification the organisation can: <ul style="list-style-type: none"> ◦ Understand what it is funding and what it will get for its money in terms of cost, quantity, quality timing; and ◦ Effectively compare the performance of actual and potential suppliers.
Performance measures	<p>Performance measures are quantifiable <i>units</i> of measurement used to assess the extent to which the provision of outputs has been achieved.</p> <p>Outputs should be evaluated using the following performance measures:</p> <ul style="list-style-type: none"> • Quantity: how much or how many (units of measure); • Quality: how good, how appropriate (units of benefit); • Timeliness: the frequency and promptness. This might include turnaround times, waiting times or response times; • Cost: unit cost or total cost; • User satisfaction: the level of customer satisfaction regarding any of the above, as well as their specific requirements; and • Continuous improvement: rates of improvement in any of the above measures over time. <p>A performance measure should:</p> <ul style="list-style-type: none"> • Help to make comparisons between: <ul style="list-style-type: none"> ◦ Similar outputs delivered by other providers; or ◦ The organisation's performance over time. • Be based on data which can be collected and reported on; • Enable assessment of how successfully the output has been delivered; • Make it clear who is accountable for: <ul style="list-style-type: none"> ◦ Delivery of the output; and ◦ Reporting against the measures/targets.
Targets	<p>Targets are specific measures (quantity, quality, cost, and timeliness or user satisfaction) of an output. They should be achievable but challenging enough to encourage improved performance and provide benchmarks for continuous improvement.</p>

	<p>When performance is measured against clear targets, achievement of those targets is more probable and accountability much greater.</p> <p>The consequences of meeting, exceeding or missing targets may be tied to payment, bonuses, rebates, and potentially, continuation of the contract.</p> <p>Targets should be based on one or more of the following:</p> <ul style="list-style-type: none"> • The current performance, when supply is considered to be efficient and effective; • The current performance plus a percentage increase; • National, state, or industry performance averages; • Benchmarking (government or industry best practice); • Technical standards established by professional associations; and • Management decisions based on resource and staffing limitations.
Contract management	<p>The specification must state the level of contract management that will take place and what the supplier needs to do to facilitate the internal management of the contract. This will include:</p> <ul style="list-style-type: none"> • The authority the contract manager will have in dealings with the successful supplier; • The reporting process (the information required in reports, and the frequency and format of reports); • The targets and performance measures used; and • The nature and level of access to the supplier's records required to conduct a performance audit.
Transition	<p>How will the project be transitioned to the supplier at the commencement of the contract, and transitioned at the end of the contract, either to the organisation or to another supplier? Final details of the transition process may be settled during the contract negotiation stage.</p> <p>For more complex procurement a transition management plan may become a key element of the procurement. Transition matters may become considerations in the assessment of value for money being offered.</p>

Table 2: Service: Statement of Requirements

3.2 GOODS: statement of requirements

Appendix 2 – GOODS: statement of requirements

The statement of requirement for the **procurement of goods** should detail the following:

- Design and performance criteria
- Compatibility and standardisation
- Acceptance testing
- Trade-ins

Design and performance criteria	<p>For design and performance criteria, this section should detail:</p> <ul style="list-style-type: none"> • Functional, performance and technical characteristics; • Reporting requirements; • Applicable standards; and • Compatibility and standardisation. <p>Functional characteristics</p> <p>Outline the proposed function or role of the goods in helping the end-user achieve the desired outcome. It focuses on what is to be achieved rather than the method of achieving it, e.g. stating 'automated system to perform this function,' rather than fully defining the required hardware or software.</p> <p>Performance characteristics</p> <p>Detail the required performance characteristics by specifying the inputs and outputs required but not the methods to be used to achieve them. This allows suppliers to offer their methods which can then be evaluated against the organisation's evaluation criteria.</p> <p>Technical characteristics</p> <p>Detail the physical description of the goods to define the requirement and state any specific limitations. Generally, it includes:</p> <ul style="list-style-type: none"> • Physical aspects e.g. Dimensions and colour; • Material properties e.g. Synthetic materials; • Processes e.g. Methods of manufacture or assembly; • Maintenance requirements e.g. When and how the maintenance is to be performed; and • Detailed plans, designs, blueprints and technical drawings.

	<ul style="list-style-type: none"> • Unit of measure • Packaging and transportation requirements • Material handling instructions • Training of the user • Regulatory requirements • Relevant accessories • Compatibility to new and existing infrastructure <p>It is appropriate to provide significant detail where a suitable standard exists or a specific solution is highly desirable. However, avoid over-specifying as this may limit the possible alternatives a supplier could offer and could increase the cost because suppliers will be satisfying requirements that are not necessary.</p> <p>Standards</p> <p>South African standards, from the SABS, or internationally recognised standards (e.g. ISO), should be used whenever appropriate. The market analysis will assist with understanding the standards used within the supplier market and applicable to the procurement.</p> <p>Reporting requirements</p> <p>Detail what the supplier must report to the organisation, how frequently it is to be provided, and for how long records are to be retained by the supplier. It may also include provisions for auditing records.</p>
Compatibility and standardisation	<p>If applicable, specify the degree of compatibility requirements whereas standardisation refers to having uniform equipment or processes.</p>
Acceptance testing	<p>Detail the tests that the good must pass before being accepted by the organisation. (Usually, there are other conditions for acceptance, as well.)</p> <p>The tests should be designed to prove that the product is, or is not, suitable for its purpose.</p> <p>The specification must include pro forma test certificates to be completed by the supplier or by another testing organisation.</p> <p>Organisations may wish to undertake user testing, if applicable, the organisation may be required to purchase samples or obtain samples as part of the testing process. This process should be detailed in the specification.</p>

Trade-Ins	If the goods being purchased are to replace existing equipment, trading in the old equipment may be a viable option.

Table 3: Goods: Statement of Requirements