

## Functional specifications

A functional specification is a method of tendering by which you give a clear description of the standards that a product, service or solution is required to meet in a tendering process, without restricting the freedom of suppliers to come up with innovative ideas.

### 1. When is a functional specification useful?

Functional specification is useful if you expect that a supplier can offer added value to procurement processes by means of, for example, innovative or new products, services or solutions. It is also useful for procedures where the most important goal is to encourage innovation. By functionally specifying a tendering process you give your suppliers the freedom to contribute their market or field expertise to a problem area in which you are interested. You thereby also give them the freedom to provide you with the best possible solution, which is often a solution that you may not have even considered yourself.

In practice, an organisation often describes in very detailed specifications ‘how’ a solution should work, so that it knows precisely what it is getting. In many cases this leads to ‘over-specification’ and deprives the supplier of the opportunity to provide added value and to differentiate itself from other suppliers. Tightly formulating a tendering request in this way may be fine for more simple products, services or solutions, but it may be totally inappropriate for situations where you wish to profit from the creativity and innovative drive of the tenderer.

### 2. How do you tackle the issue of functional specification within the tendering process?

There are four steps involved in formulating a functional specification within a tendering process. Firstly you need to ask yourself what function a new product, service or solution will serve within your organisation. Secondly, on the basis of this answer, you should formulate an initial set of specifications. Thirdly, you should then test this set against information you obtain from the market, to be able to refine the specifications and draw up a definitive set. Finally, you should check whether you have made the specifications precise enough so that suppliers can comply with them.

#### Step 1: Draw up an overview of functional needs

As the purchaser, when drawing up functional specifications, you need to find out what function the service, product or solution can fill, and why this function is so important to the organisation. The goal is to obtain a greater understanding of the underlying problem. In this process you can ask questions such as: What problem do you wish to solve? Why is that the problem? What is the cause of the problem? By searching for the question behind the question, so to speak, you will understand problems that are increasingly abstract in form. At some point you will encounter an indisputable fact or further questions will cease to provide any more meaningful answers.

This process of question and answer helps you to get a fundamental understanding of you need. It is often not possible to translate answers to more general questions into a request. You should then try to find a balance between the over-specified questions that could restrict the freedom of the supplier and these more general questions. The result of this step is an overview of the functional needs that your product, service or solution should meet. You should also bear in mind that each

stakeholder may have a different perception of the problem. Each group of users has its own functional needs. These users may be outside your organisation, such as external maintenance parties or the general public. By finding out their functional needs, you obtain a more complete and detailed overview.

The formulation of the specifications is a separate process, in which you describe the goals of the result of the procurement process in more detail, with the help of step 2.

### Step 2: Formulate the specifications

The aim of functional specification is to find a good balance between the standards required of a product, service or solution, and freedom for the supplier. The following tips can help you achieve this balance:

- Use objective and neutral terms to make specifications as functional as possible.
- Make a mix of functional and detail specifications. You can use detail specifications to prescribe the required characteristics of the solution. In short, allow scope where possible and specify in detail where necessary.
- Within the functional specifications, describe the need of your organisation effectively and in detail, so that your supplier is made responsible for meeting these requirements. In effect, the functional specifications are a means by which the procuring organisation tells the supplier what the result of the tendering process must be.
- Ensure that the functional specifications together cover the full scope of the goals. At the same time, keep the number of specifications to a minimum to encourage innovation to the optimum extent. You should therefore avoid overlap, and only specify what is necessary. This gives the supplier the opportunity to choose its own solution. It is better to leave interpretation to the supplier, especially if suppliers have a greater knowledge of a certain problem than you do.
- Describe the areas that, normally speaking, you would focus on in a detail specification, and also in functional specifications, such as:
  - Technical aspects
  - Finance
  - Logistics
  - Quality
  - Regulations
  - Mutual rights and obligations

### Step 3: Test the functional specifications for a request to the market

It is important that you are able to estimate what suppliers are able to do before submitting the functional specifications to them by means of a tendering process. Knowledge of suppliers and products will often enable you to estimate in advance whether a solution will ultimately be available on the market and whether the required solution is unnecessarily expensive. You can obtain this knowledge and understanding from, for example, a market analysis and/or a market consultation. If you then amend your functional specification on the basis of an understanding of the market, your specification will be even better.

#### Step 4: Ensure you are able to check whether the solution is satisfactory

Ensure that your functional specifications are also operational and that you can hold your suppliers to the functional specifications. This means that more than just describing the function of the solution, you should formulate it in such a way that it can be tested. It can be tested at the same time as the assessment or delivery, or during the course of the contract. The specifications must therefore be precise enough so that you can check back to see if they were met. For example: “The users from within the organisation need no additional training in order to use the selected solution.” This means that new users are able to cope on their own with the new situation within an average of five minutes. By doing this, you will obtain the best results from the functional specification.

### 3. Legal framework

In principle, government procurers are required by European directives to use functional specifications [source: [Nevi richtlijn](#)].

### 4. Further information

[Systems Engineering](#) goes further than functional specification. You can use Systems Engineering to model and describe your organisation and its tasks in such a way that market parties know precisely how your internal processes work. This ensures that your communications with the market are entirely transparent. This in turn means that you can transfer work, a service or a solution more simply to a market party or procure it more simply from a supplier. The principle here is the full design freedom of the market with a minimum of preconditions. This approach is usual in the civil engineering sector. If you use Systems Engineering, it is important that you communicate with your suppliers about this in the way that the Rijkswaterstaat does, for example.

### 5. Source

This information was taken from the “Innovation Procurement for Contracting Authorities” document that was prepared by [PIANOo](#) in 2017.