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Healthcare Supply Chain Network (HSCN) Innovation Procurement

Outcome-based Specification Guide

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Introduction

The identification and procurement of innovative products (equipment, goods, or services) improves the quality of patient care, and achieves better long-term value for money (VFM). It also stimulates innovation within the economy by enabling the market to respond to current and future public service needs. When Purchasing Organizations or Purchasers are procuring products, it is common practice to give potential proponents detailed specifications. However, overly detailed specifications may limit end-user options and result in incremental improvements rather than step-change solutions.

As a result, the use of outcome-based specifications (OBS) is becoming more common in Innovation Procurement. An outcome-based approach to specifications can give new life to existing products in the market and go a step further in improving the quality of care provided to patients.

Purpose of this Guide

This guide primarily focuses on the development of outcome-based specifications (OBS) to be used in innovation procurement. This document is for public buyers, providers, and end users within the broader public sector who want to procure innovative products to help meet their needs more effectively. This guide is intended as a reference guide only and does not replace the procurement processes and guidelines described in the BPS Procurement Directive or your own organization's own procurement policies and processes. It is intended to be a dynamic document and will be updated over time.

For the purpose of this guide, a Public Buyer refers broadly to any buyer using public funds to acquire a product. Examples of public buyers could include, but is not limited to clinicians, administrators and educators, shared service organizations (SSO), group purchasing organizations (GPOs), or Local Health Integration Networks (LHINs).

Approach & Methodology

This Guide is based on the findings of a number of inputs:

- A literature review of a number of current major publications from EU countries, addressing the key areas of innovation procurement;
- A cross-jurisdictional scan to understand the different initiatives around innovation procurement in Ontario, and Canada; and
- A series of workshops with key stakeholders from different organizations, such as shared services (SSOs), group purchasing (GPOs), suppliers, the Ministry of Government Services Ontario, and the Healthcare Supply Chain Network.

Outcome-Based Specification

Definition

Outcome-based specifications (OBS) describe the functions or performance that a product (equipment, goods, or services) must fulfil for the end user; in other words, what the product should do. This type of specification is preferably concise and allows for flexibility in determining how a specific need can be met.

Proper OBS should be written in performance terms, which focus on the function of the product required. They build around a description of what is to be achieved rather than a fixed description of exactly how it should be done. This encourages innovation in the market place, allowing and encouraging suppliers to propose new and transformative products.

Innovation procurement warrants a buyer to be able to translate public sector needs/challenges into outcome-based specifications. A common feedback from proponents is that overly prescriptive requirements can stifle their ability to offer innovation. The specifications must therefore permit solutions to the challenges, while balancing being achievable given current capabilities. To facilitate this adjustment, public sector buyers are recommended to focus on the challenges a product should solve, as opposed to the product itself.

In addition, the translation of outcome requirements into technical specifications requires sophisticated competence on the side of the suppliers. Both translations combined will determine the future trajectories of the innovations.

Guiding Principles

Outcome-based specifications can be developed using different approaches and procedures. Selecting the appropriate approach will depend on a specific need and market's maturity and capacity. However, there are some common guiding principles that can be applied when developing outcome-based specifications

- Ensure requirements (e.g., minimum levels of turnover, insurance cover, staffing levels, years of training, financial standing of the company) are appropriate to the size and complexity of the innovative solution and potential contract;
- Do not over or under specify the contracting authority requirements;
- Be sure that all of the elements included in the selection and award criteria are clearly explained and set out (e.g. if "ability to meet timeframes" is a requirement, ensure that the timeframes are clear);
- Consider not always excluding SMEs by requiring previous experience of public healthcare contracts;

- Consider environmental performances, such as the use of raw materials, sustainable production methods, energy efficiency, renewable energies, emissions, water usage efficiencies, waste, dangerous chemicals, etc.;
- Specify standards when necessary, rather than including a standard list as routine;
- Ensure that the specification is as output-based as possible – that is, it states the desired output/outcome but does not prescribe how suppliers should meet this.

The table below provides practical examples between technical and outcome-based specifications (OBS) for the same procurement process.

Figure 1 – Technical vs. Outcome-based Specification

Technical specification	Outcome-based specification
Replacement of oil-fired boiler providing a heating capacity of X.	New heating system for a 2 storey, 10000 square foot care unit that runs 24 hours a day and that is concerned about energy consumption.
Supply and installation of XXX light bulbs of XXX Watts, and XXX light fixtures	Functional specification: Classrooms needs to be lit to XX quality for XX hours per day. Corridors needs to be lit to YY quality for YY hours per day Performance-based specifications: The electricity consumption of the lighting system installed must be XX% lower than the current system.

Specification Development

Outcome-based specifications (OBS) may consists of three steps as shown below:

Step #1 – Identifying the Need

Before developing the specification, public buyers should know whether a need within the public sector realistically exists and if it is worth to an innovation procurement process. Note that not all procurements would benefit from outcome-based specifications.

The sample questionnaire below is a first step in determining if a need will require an innovation procurement process:

- Can this problem be solved in some way other than through innovation procurement (e.g. products available in the market)? Alternatively, will conventional procurement not satisfactorily solve the problem?
- Can innovation play an important role in this purchase to solve a complex organizational or societal challenge?
- Is the entire scope defined (e.g. training, spares, maintenance, and disposal)?
- Is this a new purchase for the public buyer?
- Is the public buyer looking for a custom product or replacement/improvement of existing solutions?
- Is all financial data readily available in case of a repeat purchase?
- Are the budgets for purchase, maintenance and disposal bundled into one?
- Is the scope of this contract broad enough to stimulate the market to develop innovative products (e.g. collaboration across multiple public sector entities)?

If the answer to the majority of these questions is "Yes", then it is certainly worth considering the development an outcome-based specification.

Step #2 – Gathering the Data

The next step in developing and outcome-based specifications is to gather both internal and external data, such as:

- Internal financial data;
- Internal qualitative data;
- External market data; and
- External innovation data.

Questionnaire for internal financial data

The basic financial data for new projects, investment goods, and repeat purchases can usually be derived from annual budgets. When gathering the data, public buyers should look not only at the direct purchase costs, but also total cost of ownership (e.g. energy consumption, waste charges, consumables, etc.).

Maintenance can be a critical factor in ensuring sustainability of a product, maximising its life in use. It is important to include maintenance in the original specification to ensure costs and services are market tested and that the contract is evaluated on total cost grounds.

Questionnaire for internal qualitative data

The following open questionnaire serves as a general guideline that can be supplemented with other specific organizational questions, if necessary:

- What is the relationship to other products (e.g. is it part of a larger project, or a standardization program?)
- What does the end user really need? (e.g. is a product required for this, or can it also be provided in the form of a service?)
- To what extent are public buyers able to make outcome-based specifications for this need?

- To what extent does knowledge about this need exist in the public sector and/or with suppliers?
- Who within the public sector entity has knowledge about the need and should be involved in the specification development?

Questionnaire for external market data

Conducting a market analysis begins by clearly defining the market and determining the scope and depth of the analysis.

It is important to inform potential suppliers about the outcomes seek in advance (e.g. using early market engagement strategies, such as an RFI, trade shows, etc.). This creates room for suggestions about the formulation of specifications and provides insight into the effectiveness of the related evaluation criteria. A dialogue is also a way of bringing the underlying social issues in supply chains to the attention of suppliers.

Questionnaire for external innovation data

The following questions offer a practical approach to engaging in dialogue with suppliers on this matter:

- What are the latest general innovation developments in the industry?
- How are themes such as social return, social conditions, and environmental criteria dealt with?
- How flexible is the approach to dealing with the streams of products, services, payments and information by the supply chain?
- What external influences affect performance in the supply chain?
- Is it possible to purchase alternative products (equipment, goods, and/or services) that are better?

Step #3 – Developing the Questionnaire

Outcome-based questions to suppliers can follow the SMART approach:

- **Specific**: Describe the goal in clear and concise terms. It should describe a detectable action, behaviour or outcome to which a number, amount, percentage or other quantitative data is linked.
- **Measurable**: A system, method and procedure must be in place to determine the extent to which the goal is achieved at a given time.
- **Achievable**: Is there support for what the public buyer is doing? Is it in accordance with the policy and objectives of the contracting authority? Are the stakeholders willing to commit to the objective?
- **Realistic**: Is the goal feasible?
- **Time-based**: It has a clear start and end date.

The request for proposal will often include an appendix section in which the proponent must indicate whether it meets the requirements of how it will fulfil the evaluation criteria (requirements), as well as the outcome-based requirements. The inclusion of a questionnaire related to the outcome-based award criteria with the request for explanation and evidence gives

the proponent the means to remain concise and clear, but also enough room to come up with different solutions.

What Outcome-Based Specifications Should and Shouldn't Do

Specifications should:

- Provide and introduction and background contracting authority;
- Provide the current state of the problem;
- Provide clear objectives and deliverables;
- Identify key deliverables;
- Clearly state real requirements;
- Think about the future needs, is more of the same required soon, maintenance, etc.;
- Use plain and simple language;
- Ensure technical accuracy;
- Contain clear time-scales; and
- Set performance criteria:
    - Use appropriate quality standards where they exist;
    - Reflect whole-life costs;
    - Sustainable performance objectives;
    - Environmental requirements;
    - Include risks identified through market analysis and early engagement;
    - Encourage proposals from SME organizations;
    - Include health and safety considerations; and
    - Provide flexibility for subsequent requirements.

Specifications must not:

- Prescriptive requirements that restrict or limit potential solutions;
- Use trade names or brands;
- Breach copyright;
- Use needless acronyms;
- Discriminate on the basis of nation state/region (AIT);
- Be ambiguous; and
- Be biased towards any particular supplier.

High Level Examples of Outcome-based Specifications (OBS)

Example #1 – A Hospital has identified a requirement for 'Future Wards Lighting' delivering:

- A step change in patient experience, i.e. creating a pleasant healing environment with patients being in control of bed zone lighting levels and ambience and provide the lighting necessary to perform clinical and nursing tasks, and incorporating measures to reduce the risk of hospital acquired infections;

- A demonstrable step change in energy efficiency with progressive improvements in energy efficiency and operational performance over the life of the project; and

- Financial arrangements to spread the cost of capital investment.

Example #2 – A London Borough has identified a requirement for:

- A cost effective, on site waste management solution for non-recyclable waste, suitable for use in high rise flats and council housing in a densely populated urban environment, that eliminates the requirement for waste collection, involves minimal management and is environmentally friendly.

Example of an Outcome-Based Specification Content for Child Health Information Systems

References

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