Purchasing hot drinks in cups made from bio-based materials

A good practice case

Contracting authority:
Ministry for Infrastructure and Environment (the Netherlands)

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Table of Contents

1. BACKGROUND 3

2. PROCUREMENT OBJECTIVES 3

3. CRITERIA USED 4

4. RESULTS 6

5. LESSONS LEARNED 7

1. Background

The procurement was planned and carried out in cooperation with the Department for Category Management for vending machines, operating under the Ministry for Infrastructure and Environment (in Dutch Rijkswaterstaat - RWS).

Category management is a way of procuring goods and services by the national government in the Netherlands. Category management means that each ministry, for a particular category of goods and services, procures on behalf of the other ministries. This concerns goods and services which several ministries use regularly such as, office supplies, catering or security services. Category managers are employed by one ministry but act on behalf of all the ministries. The Category manager assesses the procurement needs of the ministries for a specific group of goods or services, and also keeps track of market developments for possible consideration in upcoming purchases. The category manager prepares procurement contracts which other ministries can use, and also ensures that sustainability, innovation and small and medium sized enterprises (SMEs) are also considered when setting requirements.

In its efforts to help stimulate innovation, the Dutch government also promotes the development of the bio-based economy and thus supports public procurement of bio-based products and services. The government actively prefers products and services which include bio-based materials in their public calls for tender, where possible. Furthermore, bio-based procurement is also targeted as part of the government's **Responsible and Sustainable Procurement Action Plan** (2015-2020).

2. Procurement objectives

In October 2014 the Category Manager Catering carried out a public procurement process for hot drink vending machines for one of The Hague's new buildings - called 'The Resident'. The Resident hosts 13 departments of the Ministries Public Health, Welfare and Sports and Social Affairs and

Employment. It is a renovated office centre with around 2,400 workplaces. Three different procurement procedures related to the operation of the office cafeteria situated in that particular building:

- Purchase of hot drink vending machines,
- Providing catering services for the restaurant and the café, and
- Catering services for the smaller café.

This Case Study focus' on the first purchase as it is the one which is relevant for bio-based products.

The procurement action (published as an 'open procedure') covered the supply, installation and maintenance of vending machines as well as the provision of all the necessary ingredients and cups with the aim of setting up a framework contract for seven years.

Through this procurement, the national government sought to test how it could stimulate innovation in the bio-based products sector by requiring that the cups purchased be made of bio-based materials.

As part of the pre-procurement stage a questionnaire was sent to potential suppliers to gather information about prices and the availability of cups made from bio-based materials.

3. Criteria used

The following is a description of the part of the Call for Tenders issued by RWS relevant to the bio-based cups.

Subject matter of the contract:

Supply of hot drink vending machines.

Technical specifications:

One of the desired outcomes specified was that the contractor should provide all the necessary (loose) ingredients and bio-based cups.

Award criteria:

RWS selected the most economically advantageous tender (MEAT) using a combination of price and quality to determine which tender offered the best value for money. Price and quality were split as follows: Price (60% of total score) and quality (40% of total score). The quality criterion was split into the following sub-criteria:

(1) Quality management system: 40%

(2) Handling failures, monitoring counters and invoicing process: 40%

(3) Bio-based cups and innovation: 20%

The following information and questions were included for sub-point (3):

The national government aims to stimulate the bio-based economy in the Netherlands. The market for bio-based products is increasing. That is why the government would like to procure products that are sustainable and bio-based. Bio-based means that biomass feedstocks, and not fossil sources, are used to produce materials and products. Tenderers must provide a description of the bio-based cup they offer. The description shall address the following aspects:

1) Materials:

- What kind of material(s) are the cups made of? Are any residues or waste streams used for the production of the cups?
- What is the “bio-based content” of the cup and how was this determined?
- Where do the raw materials including the biomass used to produce the cup come from, and were these produced in a sustainable way?

2) Re-use:

- Describe what can be done to re-use the drinking cup and to prevent that it is discarded after single use. The explanation has to provide information (1) on the quality and design of the cup, and (2) on the necessary actions to be taken in collaboration with the client to encourage re-use.

3) Processing/disposal:

- The cup will be disposed separately. Therefore it needs to fit into the existing waste recycling system. The diameter of the upper edge of the cup shall not exceed 7 cm.

Tenderers were asked to specify how the cups would be processed once disposed. Furthermore, the contracting authority indicated its non-preference for incinerating the cups, and explained that the

current waste management company prefers biodegradable cups that are proven compostable[1] in its professional composting facility, and that can be collected together with the green waste stream from the same location.

4) Future actions:

Tenderers were requested to address the issue of ongoing innovation and explain what efforts they would make if a new innovative (presumably cost neutral) cup would become available during the contractual period. Innovative solutions may refer to the use of new material feedstock for cups as well as re-use and/or disposal and end of life processes.

Responses were assessed on the following aspects:

- The extent to which the cup is made up of bio-based raw materials and the extent to which sustainability was taken into consideration in sourcing the feedstock used.

- The extent to which the design, shape and appearance of the cup enables its re-use. The re-use measures proposed by suppliers were assessed as to whether they were realistic and practical or more of a burden on the contracting authority.

- The extent to which it would be possible to process the cup within the current waste management system, and the extent to which the processing method demonstrates sufficient perspective in being able to adapt to the changing bio-based product and materials market.

The extent to which all questions are answered completely and the extent to which the responses were well-founded.

4. Results

One aim of the tender was to create space for innovation. The tenders received met expectations in terms of innovation, as the final product purchased was one which was not available on the mainstream market.

The coating material of the procured bio-based cup was high quality-corn whereas the paper material was made from sugar cane. The bio-based cup was biodegradable and compostable according to the EN 13432 standard.

[1] Compostable materials are materials that meet EN13432 international standard for compostable packaging.

5. Lessons learned

- Comprehensive market research was needed at the start of the process, in order to set the right requirements and learn about the production of coffee cups using bio-based and non-bio-based materials.
- The pilot showed that both the buyers and suppliers lacked the technical knowledge to assess the product qualities, thus support and input, from many areas, was key. Different sustainability experts from the **Enterprise Agency of the Netherlands**, procurement experts from **PIANOo** (Professional and Innovative Tendering, Network for Government Contracting Authorities), and technical experts from the **University of Wageningen** were consulted during the procedure. The result was that a cross-departmental team which included external experts supported the development of the tender. The contracting authority had the backing from RWS' bio-based policy department.
- Cooperation with the waste management company and with the cleaning service provider right from the start is crucial to consider so that waste related matters can be incorporated into purchasing demands.
- The central procurement portal, such as the **PIANOo** website, is very useful for purchasers to be able to ask and discuss bio-based procurement related matters.
- According to the feedback received from the winning supplier, RWS' requirements obliged them to be more creative about what they could offer and about the options available for minimising waste.
- Bio-based products can be purchased as part of a larger package of (bio-based and non-bio-based) goods. This provides the option of discounting the price of the bio-based alternative.
- In terms of waste issues, it was often the case that in practice the bio-based coffee cups ended up in the conventional waste stream instead of the selected waste stream dedicated to this specific cup. If disposed of correctly, however, the cup is compostable. In this case a clear separation system would be required for the disposal of bio-based cups to make optimal use of their biodegradability and compostability features.
- One of the positive outcomes of the tender was that the contracting authority gained firsthand experience on how to purchase a product made from bio-based materials. This experience can serve to inform future purchases of a similar nature. The requirement for bio-based material is now part of the technical specifications that the Category Manager for Catering is using for future procurement actions.

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