



**Environmental criteria for sustainable public
procurement of**

Vending Machines

Version March 2017

1. Scope/definition

The product group Vending Machines includes vending machines for:

- hot beverages;
- cold beverages/mineral water;
- snacks/sweets.

This product group covers:

- the vending machine;
- the delivery of the vending machine;
- the contents and supplies, such as:
 - coffee, tea, chocolate milk, and soup;
 - milk and sugar;
 - drink systems;
 - cold beverages/soft drinks;
 - snacks/sweets ;
- the delivery of contents and supplies;
- maintenance of the vending machine.

This product group comprises a supply as well as a service, or a combination of the two. The following products (with their corresponding CPV codes) are part of the Vending Machines product group. This list of products is non-exhaustive.

| Products | CPV code |
|--|------------|
| Beverage Vending Machine | 42968100-0 |
| Items for vending machines | 15894500-6 |
| Vending machines | 42933300-8 |
| Vending machines | 42933000-5 |
| Installation of beverage processing machines | 51542200-5 |

The scope of this product group does not include:

- coffee and tea served during meetings. These are often included in the contract with the caterer (see Catering product group);
- the supply of power for the beverage vending machine (see Electricity product group);
- the supply of water to the beverage vending machine.

This document describes the environmental criteria. Information about the other elements of sustainable public procurement, such as social conditions and social return, may be found on the PIANOo website, on the specific product group page: <https://www.pianoo.nl/document/10576/productgroep-automaten>.

2. Most significant environmental impacts

The table below lists the sustainability themes and describes the approach to each theme for the product group. The “Approach” column presents a statement indicating the influence of sustainable purchasing and its criteria on the “sustainability” of the theme. This column also includes a reference to any requirements, award criteria or points of attention/suggestions that may be useful in implementing the approach. The product group can also have an impact on other environmental themes, but these are (at least at present) less relevant, of a much less significant level of concern, or do not as yet have a suitable set of standard criteria.

| Themes: | Approach: | No. of requirement/ Criterion |
|--|---|----------------------------------|
| Energy and climate Energy consumption of vending machines and CO ₂ emissions, energy consumption and emissions from transport of raw materials for contents and processing of raw materials into contents | <ul style="list-style-type: none"> reducing energy consumption of beverage vending machines. | ME1, AS4, AS5, AS9, AS10, GC5 |
| | <ul style="list-style-type: none"> use of sustainable products. | AS7 |
| | <ul style="list-style-type: none"> reducing CO₂ emissions. | CB1 |
| Supplies and raw materials Energy consumption of vending machines and corresponding CO ₂ emissions, energy consumption and emissions from transport of raw materials for contents and processing of raw materials into contents | <ul style="list-style-type: none"> avoiding unnecessary products. | AS1, AS2, AS3, AS4, AS6, AS11 |
| | <ul style="list-style-type: none"> using beverage vending machines designed for future reuse. | GC1 |
| | <ul style="list-style-type: none"> using refurbished machines. | AS1 |
| | <ul style="list-style-type: none"> separating, collecting and reusing single-use drink systems and packaging material. | GC2, GC4 |
| | <ul style="list-style-type: none"> bio-based procurement. | AS8, ME3 |
| | <ul style="list-style-type: none"> circular use of by-products from vending machines. | GC3 |
| | <ul style="list-style-type: none"> use of recycled material for packaging. | ME2 |

3. Points of attention/suggestions

Devoting attention to the opportunities and possibilities for the most sustainable procurement possible in the preparation phase will lead to specifications that are more ambitious or which differ from the standard technical specifications and award criteria set out in this document. The table below presents points for attention and suggestions for promoting sustainability in procurement within this product group.

| No. | Points of attention/suggestions (AS) |
|------|--|
| AS1 | <p>Avoid purchasing new vending machines Avoid the unnecessary purchase of beverage vending machines. Is it truly necessary to install a (new) machine? Is it possible to repair or overhaul the existing machines? Or is it possible to extend the existing contract by a year? This could also be discussed with the supplier.</p> |
| AS2 | <p>Optimize number of vending machines Conduct a critical assessment to determine the number of vending machines required to prevent unnecessary energy use. The placement of the machines within the building can affect the number of machines to be acquired.</p> |
| AS3 | <p>Request improvement plan for deployment of vending machines Consider asking the supplier to provide an annual improvement plan for a more efficient deployment of the vending machine park.</p> |
| AS4 | <p>Integrate cold water If no cold water is available, integrate cold water into hot beverage machines. If you plan to procure cold water as well (preferably not from an environmental perspective), be aware that there are warm Beverage Vending Machines with an integrated cold water dispensing facility. That saves space, energy and an additional water tap in the pantry.</p> |
| AS5 | <p>Place vending machine at effective location When considering the placement of the vending machine, do not install a beverage vending machine that dispenses hot beverages near a food or beverage vending machine that dispenses cold products and avoid placing a machine that dispenses hot products near a cold, draughty area.</p> |
| AS6 | <p>Catalogue use of drink systems Survey how employees use the drinking system. Are they usually at the office and do they often drink from the same cup, or are they often on the road with short periods at the office? Choose the right drink system based on the results.</p> |
| AS7 | <p>Use organically produced contents Consider stocking the vending machines with organically produced contents (e.g. coffee, chocolate milk, tea).</p> |
| AS8 | <p>Consider bio-based procurement In many cases, bio-based raw materials are preferable over fossil-based raw materials (such as plastics). Survey (with the market where possible) the possibilities, the pros and any cons of use of bio-based raw materials for your procurement needs, and give them an appropriate place in your procurement documents. More information on bio-based procurement can be found via PIANOO SPP Theme Bio-based Procurement, where the guide to bio-based procurement and the Guidelines to Bio-based Procurement have also been made available.</p> <p>If you include a requirement that the material used must be bio-based, ask for descriptions of the material used and documentation supporting claims such as “bio-based”, “sustainable biomass” and “compostable”. This will make the assessment easier and give the purchaser the opportunity to check, upon delivery of goods, whether the items supplied are in fact those agreed. It is also important not to require the production of specific certificates because this may put producers to unnecessary expense when alternative evidence would also suffice.</p> |
| AS9 | <p>Apply performance-based energy criteria Consider including a criterion that sets a limit on a vending machine's energy consumption per product unit.</p> |
| AS10 | <p>Consider purchasing an instant hot water dispenser If there are many tea-drinkers, consider an instant hot water dispenser, such as a Quooker, when purchasing a new vending machine and/or when re-fitting the pantry. As well as saving energy, this will also lead to shorter waiting-times for coffee-drinkers.</p> |
| AS11 | <p>Offer the option to supply reconditioned machines Offer the tenderer the option to supply not only new, but also reconditioned machines. Include the following text in the ToR, for example: “The vending machines supplied may also be reconditioned machines, providing they are of a decent and well-looked-after appearance (presentable, with no wear and tear) and in very good condition. Naturally, all other requirements mentioned in the ToR (such as quality and availability)</p> |

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| will apply to reconditioned vending machines as much as they do to new ones.” |
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4. Selection criteria

Not defined for this product group.

5. Technical specifications

| No. | Technical specifications (ME) |
|-----|---|
| ME1 | <p><i>(Applicable to vending machines)</i></p> <p>Energy-saving vending machines The vending machines must at a minimum have energy label A.</p> <p><i>Verification</i> The tenderer may be requested to provide the energy labels for the vending machines it is supplying.</p> |
| ME2 | <p>Use of recycled materials for packaging Where cardboard boxes are used, they must have a recycled material content of at least 80%. Where plastic bags or plastic sheets are used for the final packaging, they must have a recycled content of at least 75%. This minimum requirement will not apply if bio-based material is chosen.</p> <p><i>Verification</i> The tenderer may be asked to provide a sample of the product packaging with the proposal, together with an accompanying statement declaring that this criterion has been satisfied.</p> |
| ME3 | <p>Bio-based cup The tender must offer a bio-based cup, indicating what the bio-based content is and stating that the material used is of sustainable origin.</p> <p><i>Verification</i> The tenderer may be asked to produce certificates that show that bio-based material was used. Well-known certificates include Vincotte, OK biobased and DIN biobasirt. A report drawn up by an independent third party, which demonstrates that the material used is bio-based, will also suffice. The bio-based content may be determined using the ASTM D6866 method or equivalent. Tenderers can use the NTA 8080 certificate to demonstrate that the biomass used is of sustainable origin.</p> |

6. Award criteria

| No. | Award Criteria (GC) |
|-----|---|
| GC1 | <p><i>(Applicable to vending machines)</i></p> <p>Design focused on future reuse</p> <p>The greater the proportion of materials used in the vending machine that can be recycled at the end of the life cycle, the higher this portion of the tender will be rated.</p> <p>A higher rating can be awarded if:</p> <ol style="list-style-type: none"> 1. there is a complete inventory of all materials incorporated into the product; 2. at least 80% of the materials used can be recycled at the end of the product's service life without losing their original quality. <p>Original quality is defined as the ability to use the material at the end of the product's lifespan for the</p> |

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| | <p>same purposes as those for which it could be used before it was incorporated into the product.</p> <p><i>Verification</i> The tenderer may be requested to supply a materials list stating the material types, weights and recyclability.</p> |
| GC2 | <p>Collection and recycling of products supplied</p> <p>The higher the degree to which the tenderer will handle the collection and recycling of a higher percentage of the aspects supplied as listed below, the higher this portion of the tender will be rated.</p> <ul style="list-style-type: none"> • drink systems and/or; • packaging materials. <p><i>Verification</i> The tenderer may be asked to produce a work plan outlining the method of collection and recycling of drink systems, packaging materials and/or coffee grounds collected. The tenderer may also be requested to produce an annual statement of collected volumes and method of processing.</p> |
| GC3 | <p>Collection and composting of coffee residue</p> <p>Tenderers that arrange for coffee residue to be collected and converted into compost will receive additional ratings for this component. There are various agencies that collect and compost coffee grounds.</p> <p><i>Verification</i> The tenderer may be asked to submit the contract with the coffee residue processor to demonstrate that it is being converted into compost. If the tenderer does not yet have any such contract, it may hand over a statement and must have concluded one such contract by no later than two months after the start date of the agreement.</p> |
| GC4 | <p>Recycling packaging</p> <p>The greater the provision made by the tenderer for better recycling of the packaging, the higher this component of the tender will be rated. The tenderer may earn points by:</p> <ul style="list-style-type: none"> - avoiding multi-layers, black plastic and combination packaging; - using packaging that is readily recyclable; - collecting and recycling a higher percentage of the packaging it supplies. <p><i>Verification</i></p> <p>The tenderer may be asked to state:</p> <ul style="list-style-type: none"> - whether multi-layers, black plastic and combination packaging are used; - whether the packaging is readily recyclable, where “readily recyclable” is defined as: can be separated by hand into elements of a single material and/or packaging which are suitable for multiple use; - what percentage of the packaging it supplies is collected and recycled. <p>The tenderer may be asked to provide a sample of the packaging. It may also be asked to send a statement in which it indicates 1) what percentage of the packaging used is collected or taken away, 2) how the packaging used is processed during the waste phase and, 3) in the case of recycling, which recycler recycles the material.</p> |
| GC5 | <p>Energy-saving vending machines</p> <p>The higher the percentage of vending machines with an A+ and/or A++ energy label used by the tenderer, the higher this part of the tender will be rated.</p> <p><i>Verification</i></p> <p>The tenderer may be asked to supply the energy labels of the vending machines it is supplying and to indicate the quantities of each vending machine supplied.</p> |

7. Contract provisions

Not defined for this product group.