

EU GPP Criteria for Flushing Toilets and Urinals

Green Public Procurement (GPP) is a voluntary instrument. This document provides the EU GPP criteria developed for the product group 'flushing toilets and urinals'. The accompanying Technical Background Report for the EU Ecolabel and GPP criteria provides full details on the reasons for selecting these criteria and references for further information.

Two sets of criteria are presented for GPP:

- The core criteria are those suitable for use by any contracting authority across the Member States and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- The comprehensive criteria are for those who wish to purchase the best products available on the market. These may require additional verification effort or a slight increase in cost compared to other products with the same functionality.

1. Definition and scope

This document covers procurement actions for flushing toilet equipment including toilet suites, toilet receptacles and toilet flushing systems, and urinal equipment including urinal suites, urinals, flush-free urinals and urinal flushing systems¹. To that respect, the following definitions apply:

- 'Flushing toilet equipment' means either a toilet suite, a toilet receptacle or a toilet flushing system.
- 'Toilet suite' means a sanitary appliance combining into a functioning unit a flushing system and a toilet receptacle for receiving and flushing away human urine and faeces and directing it into a drainage system.
- 'Toilet receptacle' means a sanitary appliance for receiving and flushing away human urine and faeces and directing it into a drainage system.
- 'Urinal equipment' means either a urinal suite, a urinal, a flush-free urinal or a urinal flushing system.
- 'Flushing urinal equipment' means either a urinal suite, a urinal or a urinal flushing system.
- 'Urinal suite' means a sanitary appliance combining into a functioning unit a flushing system and a urinal for receiving and flushing away urine and directing it into a drainage system.
- 'Urinal' means a sanitary appliance for receiving urine and water used for flushing and directing both into a drainage system.

¹ Flushing toilet and urinal equipment of type Class 1 generally refer to Continental Europe market while flushing toilet and urinal equipment of type Class 2 generally refer to UK markets. However, the type of class required taking into account the local conditions needs to be checked carefully by the procurer.

- ‘Slab urinal’ means a sanitary appliance with or without flushing system comprising a floor channel and a slab or sheet fixed to a wall, for receiving urine and water used for flushing, and directing both into a drainage system.
- ‘Flush-free urinal’ means a sanitary appliance for receiving urine and directing it into a drainage system, which functions without the use of water.
- ‘Flushing system’ means, for both flushing toilet and flushing urinal equipment, either a flushing cistern with integral warning pipe connection – or a device deemed to be a no less effective device and inlet/outlet devices, or a pressure flush valve.
- ‘Water-saving device’ means a flushing device that permits a part of the full flush volume to be delivered either as double-action mechanisms (interruptible) or double-control mechanisms (dual flush).
- ‘Full flush volume’ means the total volume of water discharged from the flushing system during a flush cycle.
- ‘Reduced flush volume’ means the part of the full flush volume of water discharged by a water-saving device during a flush cycle no greater than two thirds of the full flush volume.
- ‘Average flush volume’ means the arithmetic average of one full flush volume and three reduced flush volumes calculated by following the methodology set out in Appendix 1 to Commission Decision (2013/641/EU).
- ‘On-demand flush control’ means a flushing device of a sanitary appliance, which can be operated either manually by the user through a handle, lever, button, foot pedal or any equivalent flush actuator, or by a sensor detecting the use of the sanitary appliance.
- ‘Adjusting device’ means a device which allows the full flush volume and, if relevant, the reduced flush volume of a flushing system to be adjusted.

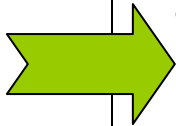
The GPP criteria for flushing toilets and urinals do not cover:

- toilet seats and covers, only when placed on the market and/or marketed independently from a flushing toilet or urinal equipment (i.e. when placed on the market and/or marketed as stand-alone item),
- toilet equipment which does not use water, use chemicals and water for flushing and toilets that require energy to aid the flushing system.

2. Key environmental impacts

It appears that the single most significant environmental impact of 'flushing toilets and urinals' is water consumption during the use phase. Other environmental impacts of relevance arise from the extraction and use of raw materials for the production of 'flushing toilet and urinals', therefore any increase in durability/longevity of these products would deliver environmental benefits.

Key environmental impacts	GPP approach
<ul style="list-style-type: none">• Water consumption• Energy consumption (due to water production and distribution and wastewater collection and treatment)• Material extraction / Resource depletion	<ul style="list-style-type: none">• Reducing water consumption• Increasing the product longevity



3. EU GPP criteria for flushing toilets and urinals

Based on data and information in the Technical Background Report the following sets of EU GPP criteria are proposed:

- a) Criteria for purchasing water-efficient flushing toilet equipment for new or refurbished buildings (3.1),
- b) Criteria for purchasing water-efficient urinal equipment for new or refurbished buildings (3.2).

3.1 Proposed core and comprehensive EU GPP criteria for flushing toilet equipment

Core criteria	Comprehensive criteria
SUBJECT MATTER	SUBJECT MATTER
Purchase of water-efficient flushing toilet equipment for new or refurbished buildings	Purchase of water-efficient flushing toilet equipment for new or refurbished buildings
SELECTION CRITERIA	SELECTION CRITERIA
<p>1. Ability of the tenderer – only in case of installation works</p> <p>Where flushing toilet equipment is being installed, the tenderer shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the products. The tenderer should especially demonstrate familiarity with the products to be installed, especially as regards environmentally friendly settings such as flush volume adjustment. The tenderer shall describe the composition and qualifications of the team that is to undertake the services.</p> <p>Verification:</p> <p>The tenderer shall supply a list of comparable projects recently carried out (number and time frame of projects to be specified by the contracting authority), certificates of satisfactory execution and information on the qualifications and experience of staff.</p>	<p>1. Ability of the tenderer – only in case of installation works</p> <p>Where flushing toilet equipment is being installed, the tenderer shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the products. The tenderer should especially demonstrate familiarity with the products to be installed, especially as regards environmentally friendly settings such as flush volume adjustment. The tenderer shall describe the composition and qualifications of the team that is to undertake the services.</p> <p>Verification:</p> <p>The tenderer shall supply a list of comparable projects recently carried out (number and time frame of projects to be specified by the contracting authority), certificates of satisfactory execution and information on the qualifications and experience of staff.</p>

TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS
<p>1. Water efficiency</p>	<p>1. Water efficiency</p>
<p>1.1 Full flush volume</p> <p>The nominal full flush volume, independent of the water pressure, of flushing toilet equipment when placed on the market shall not exceed 6.0 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>	<p>1.1 Full flush volume</p> <p>The nominal full flush volume, independent the water pressure, of flushing toilet equipment when placed on the market shall not exceed 6.0 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>
<p>1.2 Water saving</p> <p>Toilet suites delivering a full flush volume of more than 4.0 litres and toilet flushing systems shall be equipped with a water-saving device. When placed on the market, the reduced flush volume, independent of the water pressure, delivered when the water-saving device is operated shall not exceed 3.0 l/flush.</p> <p>Toilet receptacles shall allow the use of a water-saving device, of which the reduced flush volume, independent of the water pressure, delivered when the water-saving device is operated, shall not exceed 3.0 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed</p>	<p>1.2 Water saving</p> <p>Toilet suites delivering a full flush volume of more than 4.0 litres and toilet flushing systems shall be equipped with a water-saving device. When placed on the market, the reduced flush volume, independent of the water pressure, delivered when the water-saving device is operated shall not exceed 3.0 l/flush.</p> <p>Toilet receptacles shall allow the use of a water-saving device, of which the reduced flush volume, independent of the water pressure, delivered when the water-saving device is operated, shall not exceed 3.0 l/flush.</p> <p><i>For sensor based-equipment:</i></p> <p>Any sensor-based flush control shall prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed</p>

<p>requirements will be deemed to comply.</p> <p>Otherwise test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>	<p>requirements will be deemed to comply.</p> <p>Otherwise test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent. For products equipped with sensor-based flush control, the tenderer shall provide a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>
<p>1.3 Flush volume adjustment</p> <p>Flushing systems shall be equipped with an adjusting device so that the flush volumes can be adjusted by the installer to take into account the local conditions of the drainage system. The full flush volume after adjustment according to installation instructions, shall not exceed 6 l/flush or 4 l/flush if the toilet suite is not equipped with a water-saving device, and the reduced flush volume after adjustment, following the installation instructions, shall not exceed 3 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters.</p>	<p>1.3 Flush volume adjustment</p> <p>Flushing systems shall be equipped with an adjusting device so that the flush volumes can be adjusted by the installer to take into account the local conditions of the drainage system. The full flush volume after adjustment according to installation instructions, shall not exceed 6 l/flush or 4 l/flush if the toilet suite is not equipped with a water-saving device, and the reduced flush volume after adjustment, following the installation instructions, shall not exceed 3 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters.</p>
	<p>1.4 Average flush volume</p> <p>The average flush volume of flushing toilet equipment, when placed on the market, calculated by following the methodology set out in Appendix 1 to Commission Decision (2013/641/EU) shall not exceed 3.5 l/flush. Toilet suites delivering a full flush volume of 4.0 litres or less are exempted from this requirement.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed</p>

	<p>requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the calculated average flush volume (in l/flush) of the product together with results of tests conducted in accordance with the methodology described in Appendix 1 to Commission Decision (2013/641/EU) or equivalent standards. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>																
<p>2. Product performance</p>	<p>2. Product performance</p>																
<p>2.1 Flushing system requirements</p> <p>Flushing systems shall comply with the requirements of the respective EN standards listed in Table 1. The requirements for measuring the nominal full and reduced flush volumes set in the relevant EN standards in Table 1 below are excluded from this criterion.</p> <p>Table 1. EN standards on toilet flushing system requirements</p> <table border="1" data-bbox="184 781 1016 1032"> <thead> <tr> <th>Number</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>EN 14055</td> <td>WC and urinal flushing cisterns</td> </tr> <tr> <td>EN 12541</td> <td>Sanitary tapware – Pressure flushing valves and automatic closing urinal valves PN 10</td> </tr> <tr> <td>EN 15091</td> <td>Sanitary tapware - Electronic opening and closing sanitary tapware</td> </tr> </tbody> </table> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flushing system of the product complies with the requirements of the respective EN standards mentioned above or equivalent standards will be accepted.</p>	Number	Title	EN 14055	WC and urinal flushing cisterns	EN 12541	Sanitary tapware – Pressure flushing valves and automatic closing urinal valves PN 10	EN 15091	Sanitary tapware - Electronic opening and closing sanitary tapware	<p>2.1 Flushing system requirements</p> <p>Flushing systems shall comply with the requirements of the respective EN standards listed in Table 1. The requirements for measuring the nominal full and reduced flush volumes set in the relevant EN standards in Table 1 below are excluded from this criterion.</p> <p>Table 1. EN standards on toilet flushing system requirements</p> <table border="1" data-bbox="1047 781 1879 1032"> <thead> <tr> <th>Number</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>EN 14055</td> <td>WC and urinal flushing cisterns</td> </tr> <tr> <td>EN 12541</td> <td>Sanitary tapware – Pressure flushing valves and automatic closing urinal valves PN 10</td> </tr> <tr> <td>EN 15091</td> <td>Sanitary tapware - Electronic opening and closing sanitary tapware</td> </tr> </tbody> </table> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flushing system of the product complies with the requirements of the respective EN standards mentioned above or equivalent standards will be accepted.</p>	Number	Title	EN 14055	WC and urinal flushing cisterns	EN 12541	Sanitary tapware – Pressure flushing valves and automatic closing urinal valves PN 10	EN 15091	Sanitary tapware - Electronic opening and closing sanitary tapware
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<p>2.2 Flush performance</p> <p>The flush performance of toilet suites and toilet receptacles shall</p>	<p>2.2 Flush performance</p> <p>The flush performance of toilet suites shall comply with the</p>																

<p>comply with the requirements of standard EN 997.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flush performance of the product complies with the requirements of Standard EN 997 or equivalent standard will be accepted.</p>	<p>requirements of standard EN 997.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flush performance of the product complies with the requirements of Standard EN 997 or equivalent standard will be accepted.</p>
<p>3. Product longevity</p> <p>The toilet flushing equipment shall be covered by a warranty for repair or replacement of minimum four years. The warranty terms shall clearly cover the leak tightness and any valve of the product. The tenderer shall further ensure that original spare parts or their equivalent are available for at least 10 years from the date of purchase.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as a self-declaration from the manufacturer stating that the above clause is met.</p>	<p>3. Product longevity</p> <p>The toilet flushing equipment shall be covered by a warranty for repair or replacement of minimum five years. The warranty terms shall clearly cover the leak tightness and any valve of the product. The tenderer shall further ensure that original spare parts or their equivalent are available for at least 10 years from the date of purchase.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as a self-declaration from the manufacturer stating that the above clause is met.</p>
<p>4. Installation instructions / user information</p> <p>The toilet flushing equipment shall be supplied with the following information in print (on the packaging and/or on documentation accompanying the product) and/or electronic format:</p> <ul style="list-style-type: none"> - Proper installation instructions, including information on which class(es) and/or type(s) the product has been tested for, information on the specific operating pressures that the product is suitable for, information on which drainage system types the product can work with, information describing how to adjust the flush volumes as well as the consequences (e.g. in terms of residual water level, filling level, etc.) and, in the case of toilet receptacles and toilet flushing systems placed on the market 	<p>4. Installation instructions / user information</p> <p>The toilet flushing equipment shall be supplied with the following information in print (on the packaging and/or on documentation accompanying the product) and/or electronic format:</p> <ul style="list-style-type: none"> - Proper installation instructions, including information on which class(es) and/or type(s) the product has been tested for, information on the specific operating pressures that the product is suitable for, information on which drainage system types the product can work with, information describing how to adjust the flush volumes as well as the consequences (e.g. in terms of residual water level, filling level, etc.) and, in the case of toilet receptacles and toilet flushing systems placed on the market

<p>independently, information on which products they shall be combined with to make a full functioning unit that is water efficient;</p> <ul style="list-style-type: none"> – Advice on how rational use can minimise the environmental impact, in particular information on proper product's use to minimise consumption of water; – Information on full and reduced flush volumes in l/flush; – Recommendations on the proper use and maintenance of the product, including information on which spare parts can be replaced, instruction concerning replacement of washers and other fittings if the product leaks, cleaning advice, etc.; – Information concerning appropriate disposal at product's end-of-life. <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as written evidence from the manufacturer that the above clause will be met.</p>	<p>independently, information on which products they shall be combined with to make a full functioning unit that is water efficient;</p> <ul style="list-style-type: none"> – Advice on how rational use can minimise the environmental impact, in particular information on proper product's use to minimise consumption of water; – Information on full, reduced and average flush volumes in l/flush; – Recommendations on the proper use and maintenance of the product, including information on which spare parts can be replaced, instruction concerning replacement of washers and other fittings if the product leaks, cleaning advice, etc.; – Information concerning appropriate disposal at product's end-of-life. <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as written evidence from the manufacturer that the above clause will be met.</p>
<p>AWARD CRITERIA</p>	<p>AWARD CRITERIA</p>
<p>Points will be awarded for:</p>	<p>Points will be awarded for:</p>
<p>1. Additional water saving for the full flush</p> <p>Additional points will be awarded for every 0.5 litre additional water reduction of the full flush volume as specified under criterion 1.1.</p> <p>Verification:</p> <p>Test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>	<p>1. Additional water saving for the average flush</p> <p>Additional points will be awarded for every 0.1 litre additional water reduction of the average flush volume as specified under criterion 1.4.</p> <p>Verification:</p> <p>Test results according to the test procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>

<p>2. Additional water saving for the reduced flush</p> <p>Additional points will be awarded for every 0.25 litre additional water reduction of the reduced flush volume as specified under criterion 1.2.</p> <p>Verification:</p> <p>Test results according to the text procedure contained in standard EN 997 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent.</p>	
<p>3. Hygiene</p> <p>Additional points will be given for contact-free (sensor-based) flush controls which prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters, including a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>	<p>2. Hygiene</p> <p>Additional points will be given for contact-free (sensor-based) flush controls which prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters, including a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>

3.2 Proposed core and comprehensive GPP criteria for urinal equipment

Core criteria	Comprehensive criteria
SUBJECT MATTER	SUBJECT MATTER
Purchase of water-efficient urinal equipment for new or refurbished buildings	Purchase of water-efficient urinal equipment for new or refurbished buildings
SELECTION CRITERIA	SELECTION CRITERIA
<p>1. Ability of the tenderer – only in case of installation works</p> <p>Where urinal equipment is being installed, the tenderer shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the products. The tenderer should especially demonstrate familiarity with the products to be installed, especially as regards environmentally friendly settings such as flush volume adjustment. The tenderer shall describe the composition and qualifications of the team that is to undertake the services.</p> <p>Verification:</p> <p>The tenderer shall supply a list of comparable projects recently carried out (number and time frame of projects to be specified by the contracting authority), certificates of satisfactory execution and information on the qualifications and experience of staff.</p>	<p>1. Ability of the tenderer – only in case of installation works</p> <p>Where urinal equipment is being installed, the tenderer shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the products. The tenderer should especially demonstrate familiarity with the products to be installed, especially as regards environmentally friendly settings such as flush volume adjustment. The tenderer shall describe the composition and qualifications of the team that is to undertake the services.</p> <p>Verification:</p> <p>The tenderer shall supply a list of comparable projects recently carried out (number and time frame of projects to be specified by the contracting authority), certificates of satisfactory execution and information on the qualifications and experience of staff.</p>
TECHNICAL SPECIFICATIONS	TECHNICAL SPECIFICATIONS
1. Water efficiency of flushing urinal equipment	1. Water efficiency of flushing urinal equipment
<p>1.1 Full flush volume</p> <p>The nominal flush volume, independent of the water pressure, of flushing urinal equipment when placed on the market shall not exceed 2.0 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed</p>	<p>1.1 Full flush volume</p> <p>The nominal flush volume, independent of the water pressure, of flushing urinal equipment when placed on the market shall not exceed 1.0 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed</p>

<p>requirements will be deemed to comply.</p> <p>Otherwise, test results according to the test procedure contained in standard EN 13407 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent. For slab urinals the full flush volume refers to the water flushed for 60 cm width of continuous wall.</p>	<p>requirements will be deemed to comply.</p> <p>Otherwise, test results according to the test procedure contained in standard EN 13407 or equivalent standards shall be submitted. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent. For slab urinals the full flush volume refers to the water flushed over 60 cm width of continuous wall.</p>
<p>1.2 Water saving</p> <p>Urinal suites and urinal flushing systems shall be equipped with an individual on-demand flush control. For slab urinals with flushing system, there shall be an individual on-demand flush control for not more than 60 cm width of continuous wall.</p> <p>Urinals shall allow the use of an individual on-demand flush control. For slab urinals without flushing system, there shall be an individual on-demand flush controls to be placed for not more than 60 cm width of continuous wall.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters.</p>	<p>1.2 Water saving</p> <p>Urinal suites and urinal flushing systems shall be equipped with an individual on-demand flush control. For slab urinals with flushing system, there shall be an individual on-demand flush control for not more than 60 cm width of continuous wall.</p> <p>Urinals shall allow the use of an individual on-demand flush control. For slab urinals without flushing system, there shall be an individual on-demand flush control for not more than 60 cm width of continuous wall.</p> <p><i>For sensor equipped urinals:</i></p> <p>Any sensor-based flush control shall prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters. For products equipped with sensor-based flush control, the tenderer shall provide a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>
<p>1.3 Flush volume adjustment</p> <p>Flushing systems shall be equipped with an adjusting device so that the flush volumes can be adjusted by the installer to take into account</p>	<p>1.3 Flush volume adjustment</p> <p>Flushing systems shall be equipped with an adjusting device so that the flush volumes can be adjusted by the installer to take into account</p>

<p>the local conditions of the drainage system. The full flush volume after adjustment according to installation instructions shall not exceed 2 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters.</p>	<p>the local conditions of the drainage system. The full flush volume after adjustment according to installation instructions shall not exceed 1 l/flush.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters.</p>																
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<p>2.2 Flush performance of urinal suites and urinals</p> <p>The flush performance of urinal suites and urinals shall comply with the requirements of standard EN 13407.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flush performance of the product complies with the requirements of Standard EN 13407 or equivalent standard will be accepted.</p>	<p>2.2 Flush performance of urinal suites and urinals</p> <p>The flush performance of urinal suites and urinals shall comply with the requirements of standard EN 13407.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the flush performance of the product complies with the requirements of Standard EN 13407 or equivalent standard will be accepted.</p>
<p>2.3 Flush-free urinal performance</p> <p>Flush-free urinals shall comply with the requirements defined in Appendix 2 to Commission Decision (2013/641/EU).</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the product complies with the requirements mentioned above will be accepted.</p>	<p>2.3 Flush-free urinal performance</p> <p>Flush free urinals shall comply with the requirements defined in Appendix 2 to Commission Decision (2013/641/EU).</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a test report showing that the product complies with the requirements mentioned above will be accepted.</p>
<p>3. Product longevity</p> <p>The urinal flushing equipment shall be covered by a warranty for repair or replacement of minimum four years. The warranty terms shall clearly cover the leak tightness and any valve of the product. The tenderer shall further ensure that original spare parts or their equivalent are available for at least 10 years from the date of purchase.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as self-</p>	<p>3. Product longevity</p> <p>The urinal flushing equipment shall be covered by a warranty for repair or replacement of minimum five years. The warranty terms shall clearly cover the leak tightness and any valve of the product. The tenderer shall further ensure that original spare parts or their equivalent parts are available for at least 10 years from the date of purchase.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as self-</p>

<p>declaration from the manufacturer stating that the above clause is met.</p>	<p>declaration from the manufacturer stating that the above clause is met.</p>
<p>4. Fluid biodegradability and maintenance of flush-free urinals</p> <p>Flush-free urinals shall either use a ready biodegradable fluid or operate completely without fluid. In addition, the tenderer must specify the maintenance regime required for flush free-urinals including, if relevant, the cartridge replacement time-scales and provide a list of service providers for the regular maintenance of these products.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a sample of the user information describing the maintenance regime required and/or a link to a manufacturer's website containing this information and documentation describing the technology used and, when a fluid is used, test report demonstrating the ready biodegradability of the fluid following the definition and test methods provided for in the "Guidance on the Application of the CLP Criteria"² according to Regulation (EC) No 1272/2008 will be accepted.</p>	<p>4. Fluid biodegradability and maintenance of flush-free urinals</p> <p>Flush-free urinals shall either use a ready biodegradable fluid or operate completely without fluid. In addition, the tenderer must specify the maintenance regime required for flush-free urinals including, if relevant, the cartridge replacement timescales and provide a list of service providers for the regular maintenance of these products.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Otherwise, a sample of the user information describing the maintenance regime required and/or a link to a manufacturer's website containing this information and documentation describing the technology used and, when a fluid is used, test report demonstrating the ready biodegradability of the fluid following the definition and test methods provided for in the "Guidance on the Application of the CLP Criteria"² according to Regulation (EC) No 1272/2008 will be accepted.</p>
<p>5. Installation instructions / user information</p> <p>The urinal flushing equipment shall be supplied with the following information in print (on the packaging and/or on documentation accompanying the product) and/or electronic format:</p> <ul style="list-style-type: none"> - Proper installation instructions, including information on which class(es) and/or type(s) the product has been tested for, information on the specific operating pressures that the product is suitable for, information on which drainage system types the product can work with, information describing how to adjust the full flush volume as well as the consequences (e.g. in terms of residual water level, filling level, etc.), and, in the case of urinals and urinal flushing systems placed on the market independently, information on which products they shall be combined with to 	<p>5. Installation instructions / user information</p> <p>The urinal flushing equipment shall be supplied with the following information in print (on the packaging and/or on documentation accompanying the product) and/or electronic format:</p> <ul style="list-style-type: none"> - Proper installation instructions, including information on which class(es) and/or type(s) the product has been tested for, information on the specific operating pressures that the product is suitable for, information on which drainage system types the product can work with, information describing how to adjust the full flush volume as well as the consequences (e.g. in terms of residual water level, filling level, etc), and, in the case of urinals and urinal flushing systems placed on the market independently, information on which products they shall be combined with to

² The latest available version of the guidance (Version 3.0 November 2012) can be found on the ECHA website: http://echa.europa.eu/documents/10162/13562/clp_en.pdf

<p>make a full functioning unit that is water efficient;</p> <ul style="list-style-type: none"> - Advice on how rational use can minimise the environmental impact, in particular information on proper product's use to minimise consumption of water; - Information on full flush volume in l/flush; - Recommendations on the proper use and maintenance of the product, including advice on maintenance and use of products, information on which spare parts can be replaced, instruction concerning replacement of washers and other fittings if the product leaks, cleaning advice, etc.; - Information concerning appropriate disposal at product's end-of-life. <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as written evidence from the manufacturer that the above clause will be met.</p>	<p>make a full functioning unit that is water efficient;</p> <ul style="list-style-type: none"> - Advice on how rational use can minimise the environmental impact, in particular information on proper product's use to minimise consumption of water; - Information on full flush volume in l/flush; - Recommendations on the proper use and maintenance of the product, including advice on maintenance and use of products, information on which spare parts can be replaced, instruction concerning replacement of washers and other fittings if the product leaks, cleaning advice, etc.; - Information concerning appropriate disposal at product's end-of-life. <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, such as written evidence from the manufacturer that the above clause will be met.</p>
<p>AWARD CRITERIA</p>	<p>AWARD CRITERIA</p>
<p>Points will be awarded for:</p>	<p>Points will be awarded for:</p>
<p>1. Additional water saving for the flush</p> <p>Additional points will be awarded for every 0.25 litre additional water reduction of the full flush volume as specified under criterion 1.1.</p> <p>Verification:</p> <p>The tenderer shall provide test results according to the test procedure contained in standard EN 13407 or equivalent standards. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent. For flushing urinal equipment made of a continuous wall (e.g. slab urinals), the full flush volume refers to the water flushed for 60 cm width of continuous wall.</p>	<p>1. Additional water saving for the flush</p> <p>Additional points will be awarded for every 0.25 litre additional water reduction of the full flush volume as specified under criterion 1.1.</p> <p>Verification:</p> <p>The tenderer shall provide test results according to the test procedure contained in standard EN 13407 or equivalent standards. The testing shall be performed by laboratories that meet the general requirements of standard EN ISO 17025 or equivalent. For flushing urinal equipment made of a continuous wall (e.g. slab urinals), the full flush volume refers to the water flushed for 60 cm width of continuous wall.</p>

<p>2. Hygiene</p> <p>Additional points will be given for contact-free (sensor-based) flush controls which prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters, including a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>	<p>2. Hygiene</p> <p>Additional points will be given for contact-free (sensor-based) flush controls which prevent any false triggering and ensure that the flush is delivered only after the actual use of the product.</p> <p>Verification:</p> <p>Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.</p> <p>Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters, including a brief description of the measures taken when designing the product to prevent false triggering and ensure flush actuation only after actual product use.</p>
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4. EXPLANATORY NOTES

In procuring flushing toilet and urinal equipment, contracting authorities may let separate contracts (covering, for example, design, equipment supply and installation) to different contractors. In such cases, different contractors may therefore be responsible for ensuring that different criteria are met.

It shall be ensured that the user information will be passed on to the appropriate person after the installation works are completed (together with a link to information placed on the manufacturers' website).

Flushing toilet and urinal equipment requires proper maintenance to ensure the proper functioning of the system. Over time, certain elements may lose their required properties, e.g. seals will not ensure proper protection against leaks and their replacement might be necessary. Thus, control of the state of flushing toilet and urinal equipment and replacement of worn elements should be conducted on a scheduled programme.

For flushing toilet equipment, it should be noted that the main criterion for selectivity when comprehensive criteria are used is the average flush volume set in 'Technical Specifications – 1.4' (the nominal full and reduced flush volume requirements, set respectively in 1.1 and 1.2, should be seen as a safeguard); when core criteria are used, award criteria on additional water saving for the full flush (set in 'Award Criteria – 1') and additional water saving for the reduced flush (set in 'Award Criteria – 2') may be helpful to achieve higher selectivity with further water saving.

Regarding urinal toilet equipment, it should be noted that the main criterion for selectivity is the nominal flush volume set in 'Technical Specifications – 1.1' for either core or comprehensive criteria. Award criteria on additional water saving for the flush (set in 'Award Criteria – 1') may be helpful to achieve higher selectivity with further water saving.

Before applying any award criterion, the national/local legislation needs first to be checked to avoid any conflict between the legal requirements and the proposed award criteria.

In buildings where flushing toilet and urinal equipment are not used for long periods of time, procurers might include for hygienic reasons requirements on anti-stagnation flush activation, i.e. flushing at regular intervals (e.g. once a day, once a week) the unused equipment.

5. Life Cycle Costs (LCC)

The Life Cycle Cost (LCC) includes the total cost of the product throughout its life including planning, design, acquisition and support costs and any other costs directly attributable to owning or using the product.

In non-domestic buildings, the water usage for a 6/4 l dual-flush toilet contributes over 80% of the total LCC. It is therefore concluded that public procurement decisions taking into account the water consumption of the product lead to the environmental and economic most favorable results.

For illustrative purpose, a series of increasing water efficient flush regimes are presented in Figure 1 for a non-domestic toilet suite to demonstrate the associated impact on LCC

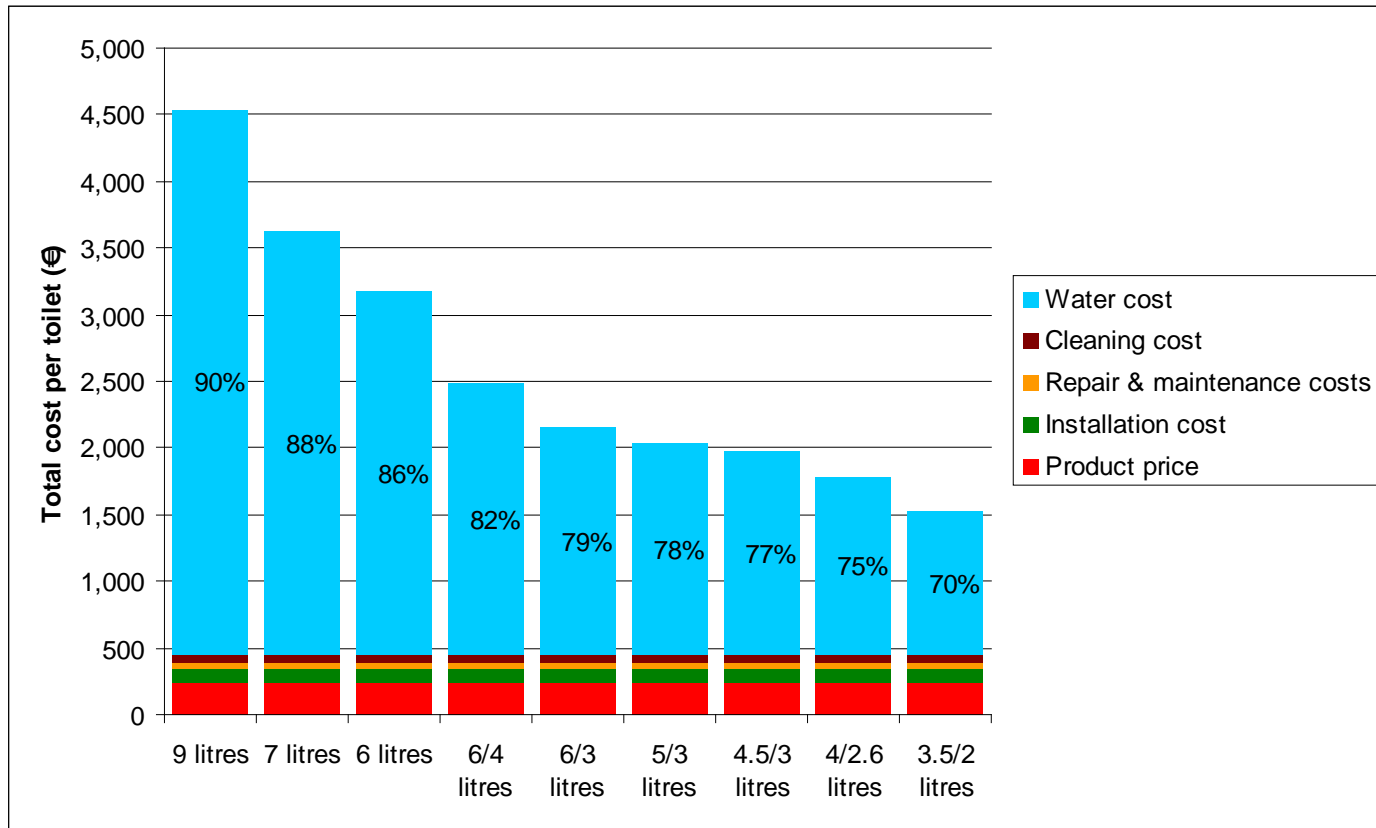


Figure 1: LCC for different toilet suites (in €₂₀₁₁)

As can be seen from Figure 1, the total LCC for a non-domestic toilet suite falls significantly when moving from the 6 l single-flush toilet to the most efficient 3.5/2 l dual-flush toilet, with the savings driven exclusively from lower water consumption. For instance, the total LCC of a 3.5/2 l dual-flush toilet (around 1,500€ in 2011 prices) is a bit less than half the total LCC of 6 l single-flush toilet (above 3,100 €). In that example, the contribution of water costs to the total LCC decreases from 86% (6 l toilet) to 70% (3.5/2 l toilet).