

# A Proposal from the European Bathroom Industry seeking a Voluntary Agreement for the Unified Water Label July 2019

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#### 1. INTRODUCTION

The Unified Water Label (UWL) Scheme for water using bathroom products meet the criteria elaborated by the European Commission in the Ecodesign Directive<sup>1</sup> to recognise a self-regulatory / voluntary agreement measure.

According to the Ecodesign Directive, when the criteria listed in paragraph 2 of Article 15 are met, a product shall be covered by an implementing act or self-regulation measure<sup>2</sup>. Voluntary agreements or other self-regulation measures presented as alternatives to implementing measures in the context of this Directive shall be assessed on that basis of Annex VIII<sup>3</sup>. Industry's self-regulation measures can be considered rather than mandatory implementing measures for those products whose action is likely to deliver the policy objectives faster or in a less costly manner than the latter<sup>4</sup>.

The UWL criteria for taps and showers aligns with the criteria for self-regulation measures of Article 15(2) of the Ecodesign Directive. Water using bathroom products, concentrating on, taps and showers represent a significant volume of sales within the Union (indicatively over 57 million units sold annually) and the Voluntary Agreement has a significant environmental impact. Moreover, there is a significant potential to improve that environmental impact without excessive cost, considering the absence of other EU legislation, market failures and the wide disparity in the environmental performance of the products available on the market with equivalent functionality<sup>5</sup>.

Based on the preliminary assessment, UWL is aimed at delivering the Ecodesign policy objectives more quickly and at less expense than a mandatory agreement, and it brings an added value in terms of environment and energy consumption. Indeed, UWL would ensure water-savings, added value in terms of environment and energy consumption, protection of internal market, less administrative burdens for companies, more information for consumers when choosing their products, and added value in terms of the improved overall environmental performance of the products covered. Indeed, the UWL also provides a wider criterion that includes all water using bathroom products. Thus, providing information for water and energy comparison across the full bathroom. UWL complies with the criteria specified in Annex VIII to the Ecodesign Directive, which are: openness of participation, added value, representativeness, quantified and staged objectives, involvement of civil society, monitoring and reporting, cost-effectiveness of administrating a self-regulatory initiative, sustainability, and inceptive compatibility.

UWL proposal has been prepared following point 3 of the Annex of the European Commission Recommendation (EU) 2016/2125 that lays down the guidelines for self-

<sup>&</sup>lt;sup>1</sup> DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (recast): https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

<sup>&</sup>lt;sup>2</sup> Article 15(1) of the Ecodesign Directive.

 $<sup>\</sup>underline{https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125\&from=EN/TXT/PDF/?uri=CELEX:3200$ 

<sup>&</sup>lt;sup>3</sup> Article 17 of the Ecodesign Directive.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

<sup>&</sup>lt;sup>4</sup> Article 15(3) of the Ecodesign Directive.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

<sup>&</sup>lt;sup>5</sup> Article 15(2) (a) to (c) of the Ecodesign Directive.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

regulation measures concluded by industry under the Annex VIII of the Ecodesign Directive<sup>6</sup>:

## 1.1 Openness of participation:

- The list of companies who are signatories to the Unified Water Label is attached to the proposal.
- The scheme is available to any manufacture/agent placing product on the EU market, as a signal of the openness of the ability to participate. Additionally, UWL is seeking commitment letters to be able to more openly display that manufacturers are backing this process and committed to registering all relevant products over a two/three year period.

#### 1.2 Added value:

- Section 31 provides a full explanation how the proposal will meet the Ecodesign/water efficiency objectives more quickly or at lesser expense than mandatory requirements.
- The details about the review of all the essential elements, indicating a date or specific circumstances that trigger the review is reported in Section 26.

#### 1.3 Representativeness

- The industry is aiming at reaching the 80 % coverage of units placed on the Union market during the next years. Annex 1 Road Map provides more details on how UWL intends to reach the 80% over the course of the next years.
- The definition of the relevant indicators to assess market coverage (objective, measurable and verifiable by an independent body) has commenced by RSM and fully expected by summer 2019.

## 1.4 Quantified and staged objectives

- Quantified objectives for water, energy saving and resource efficiency, staged in time if appropriate are reported in Sections 4/5/6/7/8.
- The list of the types of products within the scope, definitions of these products, and list product types belonging to the product group falling within the scope of the self-regulation measure are reported in Section 10/11/12
- The information requirements and the design of the products related to significant environmental impacts over the product life-cycle and aim at improving the environmental performance are reported in Sections 9/10/11/12.
- Indicators and details on how to measure compliance with the requirements are reported in Sections 9/10/11/12.

<sup>6</sup> COMMISSION RECOMMENDATIONN (EU) 2016/2125 of 30.11.2016 on guidelines for self-regulation measures concluded by industry under Directive 2009/125/EC of the European Parliament and of the Council: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN

• The entry level functionality requirements and the commitment to include a functionality test, when the relevant standard will be approved, in the requirements for the water label are reported Sections 11 and 12. A formal proposal will be made to CEN under their due process procedure to seek support for the development of a functionality Standard under the activity of CEN/TC 164/WG 8, upon the VA been awarded. The UWL ensures functionality is currently addressed within the scheme utilising the suite of existing harmonised Standards as the base of the scheme criteria.

## 1.5 **Involvement of civil society**

- The Consultation Forum, which includes Member States' representatives, industry, trade unions, traders, retailers, importers, environmental protection groups and consumer organisations, is intended to be regularly consulted.
- The operational settings of a Steering Committee and information on structure and function are reported in Section 17, 18.
- The website reporting all the information and documents of the voluntary agreement is reported in Section 17.

### 1.6 **Monitoring and reporting**

- An Independent Inspector, RSM, has been appointed with clear duties and responsibilities identified in Section 16 and contained in the Engagement letter as Annexe.
- Details and procedures on compliance reporting by signatories, compliance verification, testing, inspections, reporting by Independent Inspector, and non-compliance are reported in Section 16.

#### 1.7 Cost-effectiveness of administrating a self-regulatory initiative

• Signatories commit to bear the costs related to the operational functioning of the Voluntary Agreement.

## 1.8 **Sustainability**

 The policy objectives of the voluntary agreement are to deliver added value in terms of water and energy consumption, improve the overall environmental performance of the products covered, ensure protection of the internal market, give more information to consumers when choosing their products, ensure less administrative burdens for companies.

## 1.9 **Inceptive compatibility**

• The voluntary agreement is consistent with the national schemes and national legislations, and it is coherent with Union legislation.

The Guidelines also report that the European Commission will give priority to self-regulation measures for product groups that are included in the Ecodesign Working Plan foreseen in Article 16 of the Ecodesign Directive<sup>7</sup>. The EC Communication on Ecodesign Working Plan

<sup>&</sup>lt;sup>7</sup> Point 2 of the Annex of the COMMISSION RECOMMENDATION (EU) 2016/2125 on guidelines for self-regulation measures concluded by industry.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN

2016-2019 includes Water-related products in the priority list of the product groups<sup>8</sup>. UWL falls under the product group of Water-related products, therefore UWL can be considered as a valid alternative to an implementing measure.

UWL also addresses the contribution to Circular economy that the VA would bring, particularly regarding the possibility to extend product lifetime, reusability, repairability, remanufacturing or recycling of the products and spare parts as indicated in the Ecodesign Working Plan 2016 - 2019<sup>9</sup>.

#### 1.10 Best of All Initiative

Many national labelling initiatives have been developed in the past 10-15 years to address efficiency of water and energy using bathroom products, of which the Swiss<sup>10</sup> and Swedish Energy labels<sup>11</sup> together with the European Water Label<sup>12</sup> and the Portuguese Anqip building label<sup>13</sup> have come together to form the Unified Water Label for water using bathroom products. The European Water Label has been used as the base to build from.

A 2-year transition period has been entered to align Labels and bring databases together under one structure.

Taking the view that the EU consumer today lacks consistent information on the performance, water and energy consumption of these basic products, European and National Trade Bodies and existing National Schemes, representing many hundreds of manufacturers support the Unified Water Label<sup>14</sup>.

This proposal seeking a Voluntary Agreement is focussed on the tap and shower valve markets, that goes beyond these product ranges and extends the Label to other water using bathroom equipment.

#### 1.11 **Scope**

For the purposes of seeking a Voluntary Agreement 'products' relate to the European market for taps (including kitchen taps), shower valves and accessories such as shower handsets.

Excluded are bath taps with no shower diverter and behind the wall valves, which are required to aid water flow.

The Unified Water Label Scheme embraces 13 categories associated to water using bathroom products as defined within the technical criteria of the Scheme. The

<sup>&</sup>lt;sup>8</sup> Communication from the Commission on Ecodesign Working Plan 2016-2019, page 5 https://ec.europa.eu/energy/sites/ener/files/documents/com 2016 773.en .pdf

<sup>&</sup>lt;sup>9</sup> Communication from the Commission on Ecodesign Working Plan 2016-2019, page 8 https://ec.europa.eu/energy/sites/ener/files/documents/com 2016 773.en .pdf

<sup>&</sup>lt;sup>10</sup> https://www.bfe.admin.ch/bfe/de/home/effizienz/die-energieetikette.html

http://www.energimyndigheten.se/en/sustainability/households/other-energy-consumption-in-your-home/water-and-water-heater/energy-efficient-taps-and-shower-heads/

<sup>12</sup> http://www.europeanwaterlabel.eu/

<sup>&</sup>lt;sup>13</sup> https://anqip.pt/index.php/en/technical-committees/90-comissao-tecnica-0802

<sup>14</sup> http://www.europeanwaterlabel.eu/registeredcompanies.asp

Voluntary Agreement proposal is sought for taps as defined above and shower valves, heads and shower systems.<sup>15</sup>

## 1.12 **Objectives and Characteristics**

The Unified Water Label objective is to:

- Inform European consumers on water and associated energy consumption of taps and showers used in accordance with manufacturer's instructions.
- Promote the use of water 'efficient' products and accessories.
- Develop a simple classification scheme applicable throughout the EU, EFTA, EEA and bordering countries.
- Set harmonised requirements while conforming to any legal National requirements.
- Set a voluntary, cost-efficient and flexible tool which aims at monitoring and adapting to the market evolution of water 'efficient' products.
- open to all bathroom products and accessory manufacturers placing their products on the EU, EFTA, EEA and bordering markets.
- Harmonise existing Label schemes under the 'Best of All' approach.

#### 2. **DEFINITIONS**

The following definitions are only relevant to Taps and Showers, not the full criteria of the Unified Water Label

#### 2.1 Shower Solution

Shower solutions shall be used to indicate the combination of a shower control (valve) complete with shower hose (flexible or rigid) and shower outlet (hand shower or fixed head).

## 2.2 **Shower Outlet**

The term shower outlet will be used to describe any relevant hand shower or fixed head outlet (but not body or side jets as these types of sprays are not covered by this scheme).

#### 2.3 Fixed showerheads

According to EN 1112 chapter 4.

#### 2.4 Hand held showers

According to EN 1112 chapter 4.

## 2.5 Flow Regulators

A device which is fitted to or within sanitary tapware, often on the nozzle outlet to enable dynamic control of the delivered water flow rate. A distinction is made between:

- flow rate regulators without air intake, when operating without aeration of the water;
- flow rate regulators with air intake, when aeration of the water occurs.

<sup>15</sup> http://www.europeanwaterlabel.eu/pdf/scheme-september2015-en.pdf

#### 3. ENVIRONMENTAL MODELLING

This section provides justification on the potential water and energy saving that the UWL can offer and compares to the findings of the MEErP Preparatory Study for Taps and Showers/Faucets published 2014 and reviewed in 2018<sup>16</sup>.

The comparison study under taken by the European Bathroom Industry challenges the size of the market and the scope of products as identified within the MEErP Study for taps and showers. This proposal basis its findings on taps (including kitchen) and showering products, excludes bath taps and valves that aid water pressure, usually installed behind the wall.

Utilising the European Bathroom Forum (EBF) knowledge bank, expertise and a desk top study using published data Eurostat<sup>17</sup>, BRG<sup>18</sup> reports and web site analysis. The findings of which identifies that there are less products installed in the market by as much as 13%, indicating that the MEErP forecast on energy and water savings will be considerably lower. No published data exists to verify either report, a desktop study by the EBF undertook a sample of homes for rent and for sale across EU 27 market from a wide portfolio of real-estate websites, that provided in-depth information on facilities available across a full demographic specification. Intelligence gleaned from the European Bathroom Industry substantiated this data.

This report aims to provide evidence of potential water and energy saving of taps and showers within both the EU-28 and EU-27 (following UK exit from the EU). Chart 1 provides comparison on product in the market between Bathroom Industry findings and the MEErP Study<sup>19</sup>.

Due to lack of data Cyprus, Luxembourg, Malta and Slovenia markets are not included.

## Chart 1 –PRODUCTS/POPULATION AND DWELLINGS IN THE EXISTING MARKET – WITH AND WITHOUT UK. DATA SOURCE BRG/EUROSTAT

		EBF data	MEErP data
Products	EU28	1,901,718,204	2,317,728,776
	EU27	1,671,718,616	2,014,029,205
Population	EU28	503,800,000	507,000,000
	EU27	438,700,000	444,000,000
Dwellings	EU28	283,365,772	247,500,000
	EU27	253,173,582	Not Declared

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp\_study\_ts\_final\_draft\_v2\_codes.df

17 Furostat

https://ec.europa.eu/eurostat/data/database

BRG Building Solutions. 2016. Taps and Mixers/Faucets.

http://publications.irc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>16</sup> MEErP Preparatory Study on Taps and Showers 2014

<sup>&</sup>lt;sup>18</sup> BRG Building Solutions 2016

<sup>&</sup>lt;sup>19</sup> MEErP Preparatory Study on Taps and Showers 2014

#### 3.1 European Domestic Market

To quantify the market, use, product, population and dwelling type must be first identified.

The population trend in the EU is forecasting growth with the 4 largest areas; Germany, France, Italy and the UK having the largest population and accounts for over 54% with a forecast of increasing by 2% over the period 2015/2020. There are approximately 283,365,772 properties across EU28 of which 30,192,190 is related to the UK. Of these properties over 13% are classified as vacant or second

Chart 2 - DOMESTIC DWELLINGS ACROSS EU, HOUSES/ APARTMENTS/ SECOND HOMES AND VACANT

homes. The UK accounts for 11% of all domestic dwellings across EU28.

	EU28	UK	EU27
Houses	126,471,526	22,855,770	103,615,756
Apartments	120,342,567	5,361,230	114,981,337
Second homes	20,063,399	1,410,850	18,652,549
Vacant	16,488,280	564,340	15,923,940
TOTAL	283,365,772	30,192,190	253,173,582

Germany has the largest population, followed by that of France, Italy and the UK the demand therefore within these countries for water and energy consuming products will be far greater than that of other countries with smaller populations. This is mirrored by the BRG<sup>20</sup> report that states 50% of the market for taps and showers is Germany, France and UK.

#### 3.2 EU-27 after Brexit

In 2015 the UK populations was approximately 13% of the overall population of the EU as depicted in Chart 1. With the UK being recognised as one of the largest population sizes following Brexit conclusions this will significantly reduce the amount of water and energy consumption and potential savings.

#### 3.3 **Dwellings**

This report identifies the different dwelling types in the EU to allow for accurate assumptions of taps and showers within the existing domestic market. The dwellings shown in Chart 3; houses, apartments, second homes and vacant used within the research – source Eurostat<sup>21</sup> and compared with Euroconstruct<sup>22</sup> have similar configurations. Chart 3 depicts the domestic dwelling split

Many Countries have a greater number of houses than apartments, increasing the number of products used within those buildings compared to those countries with a higher percentage of apartments such as Latvia with 28% of the dwellings as houses

BRG Building Solutions. 2016. Taps and Mixers/Faucets.

https://ec.europa.eu/eurostat/data/database

https://www.euroconstruct.org/ec/reports

<sup>&</sup>lt;sup>20</sup> BRG Building Solutions 2016

<sup>&</sup>lt;sup>21</sup> Eurostat

<sup>&</sup>lt;sup>22</sup> Euroconstruct

and 72% apartments. Assumptions were made from Eurostat<sup>23</sup> data that there was an increase in dwellings of around 1.37% from 2015-2020.

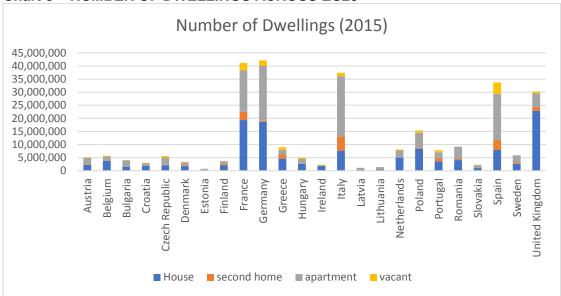


Chart 3 - NUMBER OF DWELLINGS ACROSS EU28

## 3.3.1 Dwellings after Brexit

Chart 4 depicts dwellings in both the EU-28 and EU-27 following the conclusions of Brexit. The UK has the fourth highest number of dwellings as shown in Chart 4.

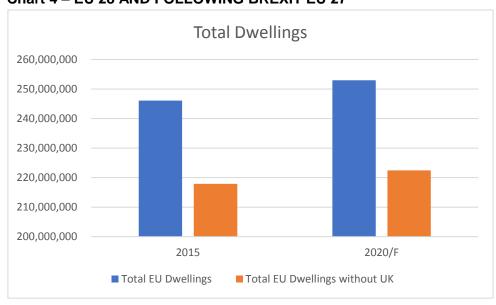


Chart 4 – EU 28 AND FOLLOWING BREXIT EU 27

https://ec.europa.eu/eurostat/data/database

<sup>&</sup>lt;sup>23</sup> Eurostat

#### 4. PRODUCTS

#### 4.1 Existing market

The total amount of products (e.g. showers, taps) in the existing market has been calculated using the average number of products per dwelling type, dwelling types minus vacant and second homes and compared with the findings from the MEErP Study for Taps and Showers 2014<sup>24</sup> and 2018 review <sup>25</sup>. The findings of which are depicted on Chart 1

## 4.1.1 Showers in Existing Market

According to the MEErP Preparatory Study on Taps and Showers/Faucets<sup>26</sup> there are approximately 1.8 showers per households and 1.5 showers per apartments. By correlating this data with the number of dwellings the results are shown below in Chart 5. However, from industry desktop research completed by the EBF it was found that there are 1.3 showers per household and 1.05 in apartments resulting in a decrease of 29% of actual products in the marketplace as shown in Chart 5.

Showers

500,000,000

400,000,000

300,000,000

200,000,000

100,000,000

0

2015

2020/F

MEErP Report

EBF Study

Chart 5: EXISTING MARKET COMPARISON BETWEEN MEERUP STUDY AND EBF DESKTOP STUDY

#### 4.1.2 Taps in the Existing Market

The MEErP Preparatory Study on Taps and Showers/Faucets<sup>27</sup> states that there are approximately 5.5 taps per household and 4.5 taps per apartment. The EBF desktop research identifies that there are far less products in the market due to a number of factors; households having no facilities, Lithuania has 30% of homes with no facilities, poor standards and less actual product installed; The EBF desktop study identified that

<sup>&</sup>lt;sup>24</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>25</sup> Follow-up of the MEErP Preparatory Study on Taps and Showers 2018

http://susproc.jrc.ec.europa.eu/taps and showers/docs/Follow up Taps Showers v1.8 clean.pdf

<sup>&</sup>lt;sup>26</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>27</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.irc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

in Germany an apartment typically has 1 kitchen tap, 1 bathroom basin tap and 1 shower, this is reflected in the BRG report<sup>28</sup>.

Chart 6: COMPARISON OF PRODUCT IN THE MARKET PLACE BETWEEN MEERP STUDY AND EBF STUDY

		Taps:	Basin taps:	Showers:	Total Products Per Dwelling	EU28 Dwellings	EU27 Dwellings
CDC atudu	Houses	1.1	2.42	1.3	4.8	202 265 772	252 472 502
EBF study	Apartments	1	1.43	1.05	3.5	283,365,772	253,173,582
MEErP Preparatory	Houses	2	3.5	1.8	7.3	247 500 000	Not Dodared
Study	Apartments	1	1.5	1.5	4.0	247,500,000	Not Declared

The EBF assumes that the split contained within the MEErP Study<sup>29</sup> between kitchen and basin taps is as above as only a collective 5.5 taps per household figure is reported.

## 4.1.3 **Summary**

The number of taps (Kitchen and washbasin), showers within each country correlate to the population size and number of dwellings as shown in Chart 1. Average values were used based upon research from the MEErP Preparatory Study on Taps and Showers<sup>30</sup> as shown within the tables above, the most abundant product is the basin tap. In 2015 there were approximately 1,106,798,508 million taps throughout EU-28. Comparing this to the EBF data which suggests that there were approximately 808,235,374 million in the EU-28. This represents a decrease of 27%.

Following the conclusions of Brexit the data is shown as:

MEErP Study 959,929,022 taps (Kitchen and basin)

EBF Study 709,789,083 taps (Kitchen and basin)

BRG Building Solutions. 2016. Taps and Mixers/Faucets.

http://publications.irc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>28</sup> BRG Building Solutions 2016

<sup>&</sup>lt;sup>29</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>30</sup> MEErP Preparatory Study on Taps and Showers 2014

## 4.2 Average Use of Products

Chart 7 identifies use factors and total number of times per day products are used correlated with water consumed. The use factor has been taken from Ecolabel for taps and showers<sup>31</sup> base date and the flow rate taken from the Unified Water Label<sup>32</sup>.

Chart 7: AVERAGE CONSUMPTION USE AS IDENTIFIED BY EBF DESKTOP STUDY

Average Consumption of use as identified by the EBF Report:				Total:	Number	Total:	Number	Total:	Total 1 house 1	Total 1 Apart 1
	Average water: (I/min)	Time (p/use) (minutes)	Times (p/d)	1 appliance	per House	house 1 day	per Apartment	1 Apart 1 day	day with 2.5 people	day with 1.5 people
Basin tap:	8.93	0.25	15.00	33.48	2.42	81.03	1.43	47.88	2.50	1.50
kitchen tap:	15.02	0.25	24.00	90.14	1.10	99.15	1.00	90.14	781.60	367.51
Shower controls:	14.56	7.00	1.00	101.89	1.30	132.46	1.05	106.99		
TOTAL:						312.64		245.01		
	rage Consumption of ntified by the MEErP !			Total:	Number	Total:	Number	Total:	Total 1 house	Total 1 Apart
	Average water: (I/min)	Time (p/use) (minutes)	Times (p/d)	1 appliance	per House	house 1 day	per Apartment	1 Apart 1 day	with 2.5 people per day	with 1.5 people per day
Basin tap:	8.93	0.25	15.00	33.48	3.50	117.19	1.50	50.22	2.50	1.50
kitchen tap:	15.02	0.25	24.00	90.14	2.00	180.28	1.00	90.14	1202.18	453.13
Shower controls:	14.56	7.00	1.00	101.89	1.80	183.41	1.50	152.84		
TOTAL:						480.87		302.09		

#### 4.3 **Products Sold**

Chart 8 presents data findings from BRG Global Faucets Report 2016<sup>33</sup> (this report was purchased from BRG) that suggests that there was an average increase of 9% of products (Taps, Showers and mixers/faucets) sold from the year 2015-2020 in the EU-28 – this will also include products not covered by the scope of this proposal.

http://susproc.jrc.ec.europa.eu/ecotapware/docs/Task 2 & 3 Draft Report.pdf

http://www.europeanwaterlabel.eu/

BRG Building Solutions. 2016. Taps and Mixers/Faucets

<sup>&</sup>lt;sup>31</sup> Ecotapware Task 2: Economic and market analysis Task 3: User behaviour

<sup>&</sup>lt;sup>32</sup> European Water Label

<sup>33</sup> BRG Building Solutions 2016

Products sold per Annum EU-28 60 000 000 58 000 000 56 000 000 54 000 000 52 000 000 50 000 000 48 000 000 46 000 000 2012 2019 2020 2013 2014 2015 2016 2017 2018

Chart 8 – PRODUCTS SOLD ACROSS EU – Source BRG global Report

## 4.4 Desk Top Study

A desk top study was undertaken to sense check the calculations and data collected. The study was carried out using five of the largest countries in relation to population and dwellings, the countries researched were as follows, Spain, France, Germany, Italy and the United Kingdom, accounting for more than 50% of the EU population and products sold across EU28.

Within the countries five areas were chosen according to demographics and social structure, data was collected from houses and apartments as to offer a variation of different size dwellings. The data was collected in a tally form and included the number of taps, showers, washbasins, WC's, baths and beds, averages were then taken from each category and country to offer a comparable set of results.

## 5. WATER CONSUMPTION

The amount of water consumed within Europe continues to increase, with primary factors such as population growth, demand for water related products and climate change influencing this. The consumption of water used within the bathroom, cloakroom environments across Europe has been calculated by using base data as outlined in previous sections of this proposal.

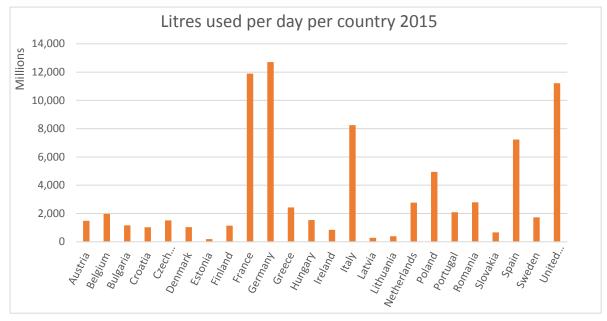
Across EU28 there are many differing levels of water consumption that is not always associated with population, for instance; Germany has the largest population of EU28 but France and the United Kingdom have a larger water consumption. There are many factors that underpin this fact including type of dwelling as UK and France the domestic house dominates the market with 86% and 64% of the dwellings and households size containing on average 2.5 people, whereas in Germany apartments dominate the domestic landscape and household size is on average 2.0.

Chart 9 depicts litres of water used per day per country. This was calculated using, population data contained in the BRG Report 2016<sup>34</sup>, by the number of products in the

<sup>&</sup>lt;sup>34</sup> BRG Building Solutions 2016 BRG Building Solutions. 2016. Taps and Mixers/Faucets

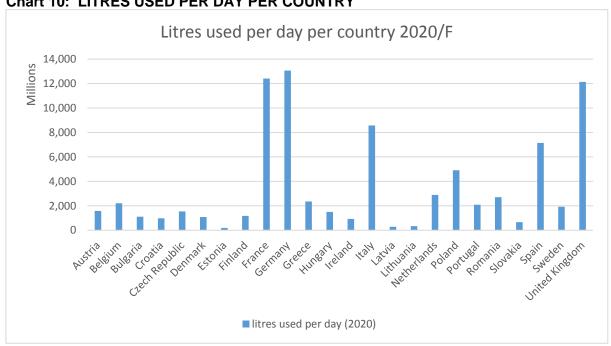
market as identified in section 4 times by the use factor as contained in the Ecolabel study for taps and showers<sup>35</sup>.

Chart 9: LITRES USED PER DAY PER COUNTRY BASED ON 2015 DATA



The forecast of water liters used per day per country as identified in Chart 10 used BRG<sup>36</sup> forecast and sense checked using Eurostat<sup>37</sup>.

Chart 10: LITRES USED PER DAY PER COUNTRY



<sup>&</sup>lt;sup>35</sup> Ecotapware Task 2: Economic and market analysis Task 3: User behaviour http://susproc.jrc.ec.europa.eu/ecotapware/docs/Task 2 & 3 Draft Report.pdf

BRG Building Solutions. 2016. Taps and Mixers/Faucets.

https://ec.europa.eu/eurostat/data/database

<sup>&</sup>lt;sup>36</sup> BRG Building Solutions 2016

<sup>&</sup>lt;sup>37</sup> Eurostat

Chart 11: LITRES USED PER YEAR PER COUNTRY BASED ON 2015 DATA

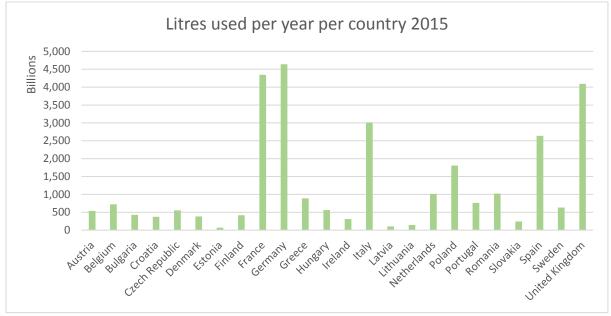
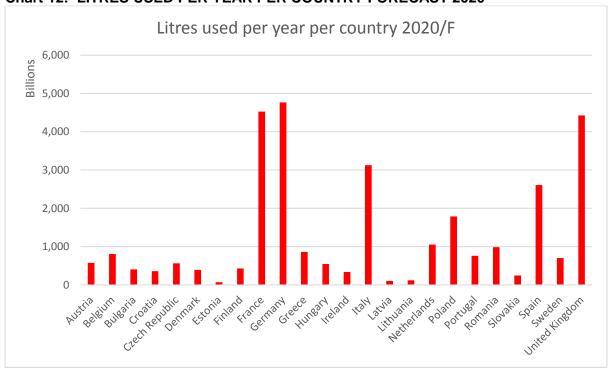


Chart 12: LITRES USED PER YEAR PER COUNTRY FORECAST 2020



## 5.1 Water Consumption after Brexit

The amount of water consumed by EU-27 after Brexit will reduce, as shown within charts 9-12. Following the UK exit from EU28 water use will fall by 14% based on 2015 figures and fall by 15% based on forecast 2020.

Chart 13 provides comparison between EBF Study as described in previous sections of this proposal and data from the MEErP Study for Taps and Showers<sup>38</sup>.

**Chart 13: COMPARISON DATA** 

2015 Results	Litres Used Per Year EBF Data		Litres Used Per Year MEErP Data	
EU28	52,223,106,648,960	<b>\</b>	74,813,433,708,089	<b>→</b>
EU27	44,983,564,774,037	14%	63,923,799,318,382	15%
2020 Results	Litres Used Per Year		Litres Used Per Year	
EU28	53,780,593,546,470	<b>\</b>	77,085,957,168,085	<b>→</b>
EU27	45,950,948,318,522	15%	65,308,696,202,331	15%

## 5.2 Water Projections

Chart 14 provides projections on water use for 2020, 2030 and 2035 and compares with the MEErP Study base data.

**Chart 14: FORECAST WATER USE** 

Water Consumption Projections	Litres Used Per Year	
EU28 (2020) EBF	53,780,593,546,470	<b>↑</b>
EU28 (2030/2035) EBF	56,444,972,473,875	5%
EU28 (2020) MEErP	77,085,957,168,085	<b>↑</b>
EU28 (2030/2035) MEErP	80,904,922,083,375	5%

#### 6. ENERGY CONSUMPTION

Water and energy are inextricably linked, therefore reducing water will reduce energy and save the user money from utility bills. The saving potential will differ and will rely heavily on product, population and use factors. Using the methodology found in the MEErP Study<sup>39</sup>, 58% was identified as the percentage of hot water used for taps and showers.

The overall energy usage of EU28 is calculated in Chart 15. The energy use has been calculated taking into account all factors researched throughout the report. The calculations were made for the total sum of energy produced by EU28 and EU27 (following UK exit) by using the energy calculation identified in the Unified Water Label<sup>40</sup> criteria and section 14.2 of this proposal.

Chart 15 depicts the collective energy use across EU28 for taps and showers using 2015 data as identified throughout this proposal.

<sup>&</sup>lt;sup>38</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>39</sup> MEErP Preparatory Study on Taps and Showers 2014

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>40</sup> European Water Label

http://www.europeanwaterlabel.eu/

Chart 15: EU ENERGY USE

EU28 (2015 Results)					
	Baseline S	Scenario			
	Hot wate outlet (3				
Shower control (M m³/yr/%)	13,184	43%			
Washbasin (M m³/yr/%)	7,098	23%			
Kitchen taps (M m³/yr/%)	10,422	34%			
Total hot water demand in taps and showers (M m³/yr)	30,704	100%			
Total demand of water in taps and showers (M m³/yr)	52,938				
Hot water / Total (%)	58%				

Chart 16: ENERGY USE EU27

Chart 10. ENERGY USE EUZI				
EU27 (2015 Results)				
	Baseline S	cenario		
	Hot wate	r at the		
	outlet (3	2-40°c)		
Shower control (M m³/yr/%)	11,356	43%		
Washbasin (M m³/yr/%)	6,114	23%		
Kitchen taps (M m³/yr/%)	8,978	34%		
Total hot water demand in taps and showers (M m³/yr)	26,448	100%		
Total demand of water in taps and showers (M m³/yr)	45,600			
Hot water / Total (%)	58%			

Chart 16 shows a decrease in EU 27 energy associated with taps and showers of 14%.

Chart 17: ENERGY USE PROJECTIONS 2020 AND 2030 FOR EU28

	EU28 (2020 P	rojections)	EU28 (2030 Projections)		
	Baseline S	cenario	Baseline Scenario		
	Hot water at (32-40		Hot water at (32-40		
Showers (M m³/yr/%)	13,577	43%	14,256	43%	
Washbasin (M m³/yr/%)	7,309	23%	7,675	23%	
Kitchen taps (M m³/yr/%)	/yr/%) 10,733		11,270	34%	
Total hot water demand in taps and showers (M m³/yr)	taps and showers 31,620		33,201	100%	
Total demand of water in taps and showers (M m³/yr)	d showers 54,517		57,243		
Hot water / Total (%)	58%		58%		

## Chart 18: ENERGY PROJECTIONS FOR EU27 FOLLOWING UK EXIT FROM EU28

	EU27 (2020 F	Projections)	EU27 (2030 Projections)		
	Baseline S	Scenario	Baseline Scenario		
	Hot water at (32-4		Hot water at the outlet (32-40°c)		
Showers (M m³/yr/%)	11,601	43%	12,181	43%	
Washbasin (M m³/yr/%)	6,245	23%	6,557	23%	
Kitchen taps (M m³/yr/%)	9,171	34%	9,629	34%	
Total hot water demand in taps and showers (M m³/yr)	27,017	100%	28,367	100%	
Total demand of water in taps and showers (M m³/yr)	46,580		48,909		
Hot water / Total (%)	58%		58%		

## Chart 19: COMPARISON ON EU28 AND EU27 ENERGY USE PER PERSON

Calculated Energy Usage Per Person Per Annum				
	2015 (kWh) 2020 (kWh Projections) 2030 (kWh Projections			
EU-28	132,995,415,389,270	134,816,908,771,933	141,557,754,210,530	
EU-27	115,810,021,300,660	117,024,350,222,436	122,875,567,733,558	

#### 6.1 Best/Worst Case Scenarios

Charts 20-23 provide energy use associated with taps and shows on two scenario basis – worst/best cases. Using scenarios from the MEErP Preparatory Study on Taps and Showers/Faucets<sup>41</sup> as the base 'hot water demand at the outlet of taps and showers is considered to represent 55-62% of the total water use in product'. Product hot water consumption was identified using the corresponding percentage with the total hot water demand in taps and shower as shown in charts 20-23.

Chart 20: EU 28 COMPARISON WORST AND BEST CASE SCENARIOS

EU28 (2015)					
	Hot water at the outlet (32-40°c)			40°c)	
	Best So	cenario	Worst Sc	enario	
Shower control (M m³/yr/%)	9,127	43%	19,306	43%	
Washbasin (M m³/yr/%)	4,913	23%	10,393	23%	
Kitchen taps (M m³/yr/%)	7,215	34%	15,262	34%	
Total hot water demand in taps and showers (M m³/yr)	21,255	100%	44,961	100%	
Total demand of water in taps and showers (M m³/yr)	38,645		72,518		
Hot water / Total (%)	55%		62%		

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp study ts final draft v2 codes.df

<sup>&</sup>lt;sup>41</sup> MEErP Preparatory Study on Taps and Showers 2014

Chart 21: WORST AND BEST CASE SCENARIOS FOLLOWING UK EXIT FROM EU28

EU27 (2015)					
	Hot water at the outlet (32-40°c)				
	Best Sc	enario	Worst So	cenario	
Shower control (M m³/yr/%)	7,861	43%	16,630	43%	
Washbasin (M m³/yr/%)	4,232	23%	8,953	23%	
Kitchen taps (M m³/yr/%)	6,215	34%	13,146	34%	
Total hot water demand in taps and showers (M m³/yr)	18,308	100%	38,729	100%	
Total demand of water in taps and showers (M m³/yr)	33,288		62,465		
Hot water / Total (%)	55%		62%		

Chart 22: FORECAST PROJECTIONS ON ENERGY FOR EU28 – 2020 AND 2030

	Hot water at the outlet (32-40°c)			Hot water at the outlet (32-40°c)				
	Best So	cenario	Worst So	cenario	Be	st Scenario	Worst Sco	enario
Shower control (M m³/yr/%)	9,399	43%	19,306	43%	9,869	43%	20,876	43%
Washbasin (M m³/yr/%)	5,060	23%	10,393	23%	5,313	23%	11,239	23%
Kitchen taps (M m³/yr/%)	7,430	34%	15,262	34%	7,802	34%	16,503	34%
Total hot water demand in taps and showers (M m³/yr)	21,889	100%	46,302	100%	22,983	100%	48,617	100%
Total demand of water in taps and showers (M m³/yr)	39,798		74,681		41,788		78,415	
Hot water / Total (%)	55%		62%		55%		62%	

Chart 23: FORECAST PROJECTIONS ON ENERGY USE FOR EU27 FOLLOWING UK EXIT

		EU27	(2020)			EU27	(2030)	
	Hot wa	iter at the	outlet (32-	40°c)	Hot water at the outlet (32-40°c)			
	Best Sce	enario	Worst So	enario	Best Sce	enario	Worst Sc	enario
Shower control (M m³/yr/%)	8,030	43%	16,987	43%	8,432	43%	17,837	43%
Washbasin (M m³/yr/%)	4,323	23%	9,145	23%	4,539	23%	9,602	23%
Kitchen taps (M m³/yr/%)	6,348	34%	13,429	34%	6,666	34%	14,100	34%
Total hot water demand in taps and showers (M m³/yr)	18,702	100%	39,561	100%	19,637	100%	41,540	100%
Total demand of water in taps and showers (M m³/yr)	34,004		63,809		35,704		66,999	
Hot water / Total (%)	55%		62%		55%		62%	

## 7. WATER AND ENERGY SAVING POTENTIAL

Potential water and energy saving is calculated using the consumption shown in charts 20-23 and using base data as identified throughout this proposal. Four scenarios have been identified on forecasted consumption for water and energy.

The four scenarios were taken from the EBF 2019 road Map which is annexed to this proposal. The 4 scenarios are based on market penetration and growth of the Unified Water Label<sup>42</sup> as shown in Chart 24.

The base scenario uses the currently forecasted market coverage of 62% - verification of actual market coverage is currently being determined by an Independent Auditor.

Chart 24 - UNIFIED WATER LABEL ROAD MAP SCENARIOS

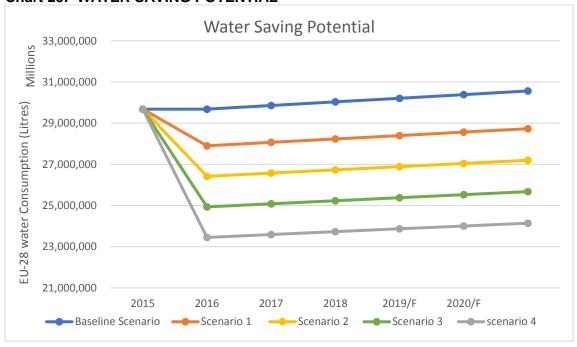
Base line	62%	Current
Scenario 1	68%	6%
Scenario 2	73%	11%
Scenario 3	78%	16%
scenario 4	83%	21%

http://www.europeanwaterlabel.eu/

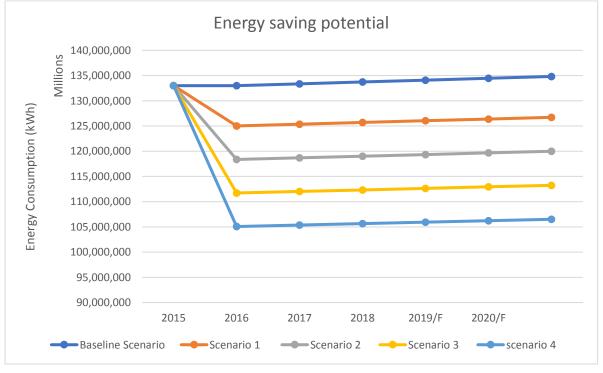
<sup>&</sup>lt;sup>42</sup> European Water Label

The scenarios follow the road map projections on growth and market penetration. Charts 25 and 26 depict this.

**Chart 25: WATER SAVING POTENTIAL** 







#### 8. CONCLUSIONS ON ENVIRONMENTAL IMPACT

The Unified Water Label<sup>43</sup> on the forecasted growth as contained within the Unified Water Label 3 Year Transition Road Map – achieving market coverage, predicts that water and energy savings will increase as the Label improves market coverage and visibility.

Overall, the maximum saving potential currently forecasted over a 5 step change in Label growth has the potential to see a 21% decrease in water and energy consumption as stated within charts 25 and 26. Forecast growth of thermostatic taps and showers as indicated within the BRG report 2016<sup>44</sup> will also have an impact on energy savings as majority of products will be pre-set at temperatures relating to the market sector being sold.

Once the Unified Water Label Independent Inspector has verified base data then the energy and water savings calculations can be reassessed.

#### 9 THE SCHEME

- 9.1 This Scheme sets the principles which all signatories commit to follow while supplying products and accessories (as defined under Section 2 Definitions) on the EU, EFTA, EEA and bordering countries. The manufacturers and signatories of this Scheme recognise that:
  - Water is an essential natural resource which must be preserved.
  - Water 'efficient' using products can help mitigate water and energy consumption while maintaining safety, comfort and delivering no less performance
  - Product criteria has been set to guarantee fair, simple information for the user.
- 9.2 The manufacturers and sellers of bathroom products, bathroom accessories and kitchen taps joining this Scheme commit to:
  - Engaging with all aspects of the Scheme to save water and energy, thereby protecting the environment and aiding the reduction of costs for the end user
  - Commit to registering all relevant products onto the Scheme
  - Promote the Scheme by informing the users about the water consumption of these products, via visibility of the Label and supporting marketing material
  - Further developing the voluntary, simple and common classification Scheme
  - Invite all interested stakeholders trading in the market to join the Scheme
  - Cooperate with the competent bodies and other interested parties to optimise information and promote the Scheme widely in all relevant countries.

The signatories of this Scheme are expected to meet the requirements of the Scheme The signatories commit themselves to:

- Label all registered products via a combination of websites, online literature, product literature, instruction booklets, product and packaging for which the signatory has applied and been granted labelling authorisation.
- Meet National legal requirements where the product is marketed.
- Raise awareness about the water and energy efficiency of these products assisted by the Unified Water Label.
- Cooperate with the Unified Water Label operator for the annual auditing process and the monitoring report on the progress of implementation of the Scheme

http://www.europeanwaterlabel.eu/

BRG Building Solutions. 2016. Taps and Mixers/Faucets.

<sup>&</sup>lt;sup>43</sup> European Water Label

<sup>&</sup>lt;sup>44</sup> BRG Building Solutions 2016

9.3 This Scheme and label aim at simplicity and efficiency. It concentrates on the water and associated energy savings.

The use of products in the water distribution system should suitably be combined with water quality and hygiene requirements. Advice and assistance of a local professional installer should be sought to ensure that the complete water system conforms to applicable regulations and is installed for optimal performance in terms of comfort, water and energy efficiency.

#### 10. COMMITMENTS - TECHNICAL CRITERIA AND SPECIFICATIONS

#### 10.1 General

The Unified Water Label (UWL) lists the maximum flow or flush volume for registration into the scheme. Therefore, product performance tolerances can be no more than the stated performance.

Products submitted for approval will comply with all relevant National Regulatory requirements of the country of intended destination.

Devices used to measure distance, flow rate, volume and pressure shall have calibration records that are traceable to National Standards.

Measurement equipment must be calibrated to National Standards.

For purposes of testing cold water recommended temp (10-15 degrees Celsius) (Hot water +50 degrees +/-1)

## 11. SHOWERS GUIDE TO TESTING

#### 11.1 General

#### **Shower Solutions**

Shower solutions shall be used to indicate the combination of a shower control (valve) complete with shower hose (flexible or rigid) and shower outlet (hand shower or fixed head).

#### **Mixer Showers**

Mixer Showers are complex products. Manufacturers follow differing philosophies concerning methods of controlling flow rates. Most commonly, these include specifying limitations on the supply pressures, or the incorporation of flow limiting devices which can be located either in the mixer shower itself – or in the shower hose/outlet or handset.

In all cases The Scheme tests are to determine the maximum available flow rate that can be delivered to the end user and functional testing to ensure that the end user can be satisfied by performance characteristics of the product.

The maximum available flow rate is the flow rate that can be delivered to the end user at a test reference pressure (see testing criteria) with all available outlets open and in the most 'free flowing' position. I.e. any other configuration of water flow settings will deliver a lower flow rate to the end user (with the exception of specific configurations – e.g. products with a water break.)

#### **Shower Outlets**

Shower outlets can also be complex products and as one of the most often updated products this scheme allows for the listing of these products in their own category. Products may be single spray or multi-mode products and indeed be suitable for a range of operating pressures with the inclusion or removal of flow regulators to help modify the performance of the product to satisfy the end user.

Additionally, products may also be intended to be of the fixed head type (most often connected by a rigid pipe conveying the water to the product or the hand shower type (most often connected by a flexible shower hose). In all cases The Scheme tests are to determine the maximum available flow rate that can be delivered to the end user and functional testing to ensure that the end user can be satisfied by performance characteristics of the product.

## 11.2 Mixer Showers

#### 11.2.1 Scope and Objectives

All mixer showers that deliver water at a single showering position under pressures up to the maximum operating pressure specified by the original manufacturer - or in the case of no maximum being specified, at pressures up to and including 3.0 -0/+0.2 bar.

Mixer Showers may consist of various configurations as supplied to the market and shall be tested accordingly: -

A mixing valve, tested with supplied hose (or rigid riser) and outlet(s); A bath tub/shower mixer (shower outlet only): -

- tested with supplied hose (or rigid riser) and outlet(s).
- bath filling outlet not tested

## 11.2.2 General Requirements

Shower solutions and mixer showers must meet the three requirements:

- Maximum available flow rate
- Pressure independency (where applicable products delivering ≤ 8.0 l/m)
- Spray coverage

If the showerhead has more than one mode, at least one of the modes, as specified by the manufacturer, must meet all the requirements outlined in this specification for pressure independency and spray coverage while the maximum available flow may require a different mode.

Where the shower Solution has the potential to be installed on both high and low pressure installations the product shall be provided with suitable instructions directing the installer on how to install correctly to achieve the rated flow.

If so desired, the manufacturer can choose to list the product for both high and low pressure setting on the scheme website

#### 11.2.3 **Test Apparatus**

Use for all tests a test apparatus according EN 1111 and/or EN 1287 chapter 13.2 and Annex A3 of the standards which can deliver the pressures and tolerances given and the addition of the manufacturer supplied flexible hose/rigid riser and shower outlet.

#### 11.2.4 Functional Tests

These tests are used to determine the performance characteristics of the shower solution. Ongoing technical discussions to improve this test will continue.

#### 11.2.5 Flow rate testing

#### Procedure for shower controls

In the case of mixer showers not limited to low pressure applications only - the dedicated shower hose (or rigid riser) and dedicated shower outlet shall be attached and the range of test pressures applicable to the product shall be applied;

In the case of mixer showers designed for low pressure applications only, the dedicated shower hose(s)/outlet(s) specified by the manufacturer shall be attached and the maximum pressure specified by the manufacturer shall be applied; In the case of Bath tub /Shower combination tap assemblies, only the flow rate to shower is measured;

In the case where multiple shower outlets can be open at the same time, the maximum flow rate shall be recorded as a combination of all available simultaneous flow rates.

Connect the mixing valve to the apparatus specified above:

Fully open the flow control.

For mixer showers that are not limited to low pressure applications only - apply a (3 - 0/+ 0.2 bar) pressure to both the hot and the cold inlets,

In the case of mixer showers that are limited to low pressure applications only - apply a 0.2 -0/+0.02 bar pressure to both the hot and the cold inlets.

Position the shower outlet 100cm +5/-0cm above the shower control to mirror actual world scenario of 1 m head (.1bar) at the shower outlet. For products designed for low pressure applications only, testing at 0.1 bar at the shower outlet already confirms the performance at the worst case scenario.

In the case of mixer showers that are designed to be used at high and low pressure applications, the product should at the least be rated at the pressure setting for which the product is set when it leaves the factory i.e. the as delivered state. Alternatively, the product can be rated for both high and low pressure (type 1 and type 2) and be listed twice.

Adjust the mixed water temperature to  $38 \pm 1$  °C.

Under steady and constant flow conditions measure and record the mixed water flow rate.

Where products record a maximum available flow rate value at 3 -0/+0.2 bar that would place the product listing in one of the two most efficient flow bands i.e. 8 l/min or less, the flow rate needs to be additionally verified at 1.5 -0/+ 0.2 bar and for type 1 (high pressure) applications

System	Pressure
Type 1	(0,15 + 0,02) MPa [(1,5 + 0,2) bar]*
Type 1	(0,3 + 0,02) MPa [(3,0 + 0,2) bar]
Type 2	(0,02 + 0,002) MPa [(0.2 + 0.02) bar] <sup>a</sup>

Table 1: Flow rate pressures

\*Refer to pressure independency test only

Pressure supplied to the shower control – pressure at the outlet will be 0.1 bar

## 11.2.6 Requirements – maximum available flow rate

The flow rate shall be recorded at the standard reference pressure 3 -0/+ 0.2 bar (or 0.1 -0/+0.02 as appropriate). This is the flow rate that shall be listed on the labelling scheme.

Where the flow rate at the reference pressure 3 -0/+ 0.2 bar is  $\leq$  8.0 l/min The flow rate at the lower pressure 1.5 -0/+ 0.2 bar shall be  $\geq$  60 % of the maximum available flow rate:

## 11.2.7 Scheme Rating Value

Products will be rated as per the table below according to their maximum recorded flow rate recorded to 1 decimal place.



Table 2: Flow Rate

#### 11.2.8 Use of Flow Regulators

Where products are supplied with one or more flow regulator 'in the box' then the product can be tested and listed as a low-pressure product with testing conducted at the appropriate declared maximum working pressure (or 0.1 bar); or the product is tested and listed as if the flow regulators were fitted to the product.

Where this is the case suitable instructions in the installation guide must be included to ensure that the configuration that is listed on the scheme is adequately described to enable the declared flow rate to be achieved

Testing with a dedicated shower hose and dedicated shower outlet means that in the event of a shower hose or shower outlet having to be replaced, the components must be replaced on a like for like basis. Failure to do so may create a safety hazard and the requirements of the scheme may no longer be satisfied - and listing invalidated. This must be made clear within the installation and maintenance instructions.

## 11.2.9 Pressure independency

## Requirements

For type 1 products rated at 3.0 bar delivering 8.0 l/min or less, the lowest flow rate shall not be less than 60 % of the maximum flow rate.

Further discussions will take place during a 2 year transition on pressure independency to verify the metrics.

## **Spray Coverage**

#### Test - Apparatus

Additionally, to the test apparatus described above, use the annular ring test setup shown in Figure 1 and Figure 2 on Pages 35 – 36.

Note: - The mode used for this test may be selected by the manufacturer and may be different to that used to determine the maximum available flow rate but must be the same as that used to determine the spray coverage.

#### **Test Procedure**

Mount the showerhead so the faceplate is horizontal and parallel with the top surface of the annular rings.

Position the annular rings underneath the showerhead so the centre line of the faceplate and the centre ring are in vertical alignment and the top of the annular gauge is  $(457 \pm 6 \text{mm})$  from the faceplate (see Figure 2 – page 36).

Initiate the flow of water with a pressure suitable for the rating of the product i.e. 3,0 + 0,2 bar for type 1 products and 0.1 + 0.02 bar for type 2 products

Allow the water to flow through the showerhead and into the annular rings for (60 + 10) s, if one of the rings is completely filled prior to the end of the time period then stop the flow

Collect, measure, and record the volume of water in each annular ring.

Determine the total volume collected in all rings.

Calculate and record the percentage of the total recorded volume collected in each ring.

## Requirements

The total combined maximum volume of water collected in the 2 inner annular rings shall not exceed 75 % of the total volume of water collected, and;

The total combined minimum volume of water collected in the 3 inner annular rings shall not be less than 25 % of the total volume of water collected.

#### 11.3 Shower Outlets

#### Scope and Objective

This specification establishes the criteria for showerheads labelled under the Unified Water Label Scheme.

## 11.3.1 General Requirements

Showerheads have three additional functional test requirements: -

- Maximum available flow rate
- Pressure independency (where applicable products delivering ≤ 8.0 l/m)
- Spray coverage

If the showerhead has more than one mode, at least one of the modes, as specified by the manufacturer, must meet all the requirements outlined in this specification for pressure independency and spray coverage while the maximum available flow may require a different mode.

Where the shower Solution has the potential to be installed on high and low pressure installations the product shall be provided with suitable instructions directing the installer on how to install correctly to achieve the rated flow.

If so desired, the manufacturer can choose to list the product for both high and low pressure setting on the scheme website

#### Test apparatus

Use for all tests a test apparatus according EN 1112 chapter 11.2 of the standard, which can deliver the pressures and tolerances given in Table 3 below.

#### 11.3.2 Functional tests

As defined below in sub-categories 11.3.3 – 11.3.8.

#### 11.3.3 Flow rate testing

These tests are used to determine the performance characteristics of the showerhead.

#### **Procedure**

Connect the shower outlet to the apparatus specified above:

Perform flow rate test according EN 1112 chapter 11.2 of the standard at the given pressures in Table 3 below, record the flow rates:

If the showerhead has more than one mode, the mode with the highest flow rate is used to determine the flow rate.

Table 3: Flow rate pressures

## Requirements – maximum available flow rate

The flow rate shall be recorded at the standard reference pressure 3 - 0/+ 0.2 bar (or 0.1 - 0/+ 0.02 as appropriate). This is the flow rate that shall be listed on the labelling scheme.

#### 11.3.4 Scheme Rating Value

Products will be rated as per the table below according to their maximum recorded flow rate recorded to 1 decimal place.

Flow Rate (Litres per Minutes)

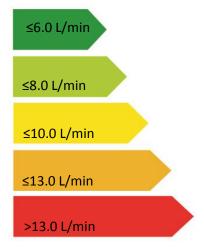


Table 4: Flow rate pressures Shower Outlets

## 11.3.5 Use of Flow Regulators

Where products are supplied with one or more flow regulator 'in the box' then the product can be tested and listed as a low pressure product with testing conducted at the appropriate declared maximum working pressure (or 0.1 bar); or the product is tested and listed as if the flow regulators were fitted to the product.

Where this is the case suitable instructions in the installation guide must be included to ensure that the configuration that is listed on the scheme is adequately described to enable the declared flow rate to be achieved.

## 11.3.6 Pressure independency

## Requirements

The lowest flow rate shall not be less than 60 % of the maximum flow rate. Where the flow rate at the reference pressure 3 - 0/+ 0.2 bar is  $\le 8.0$  l/min the flow rate at the lower pressure 1.5 -0/+ 0.2 bar shall be  $\ge 60$  % of the maximum available flow rate.

## 11.3.7 Spray Coverage Test

#### **Apparatus**

Additionally, to the test apparatus described above, use the annular ring test setup shown in Figure 1 and Figure 2 on Pages 35 – 36.

#### **Test Procedure**

Mount the showerhead so the faceplate is horizontal and parallel with the top surface of the annular rings.

Position the annular rings underneath the showerhead so the centre line of the faceplate and the centre ring are in vertical alignment and the top of the annular gauge is (457 ± 6mm) from the faceplate (see Figure 2).

Initiate the flow of water with a pressure suitable for the rating of the product i.e. 3.0 + 0.2 bar for type 1 products and 0.1 + 0.02 bar.

Allow the water to flow through the showerhead and into the annular rings for (60 +10) secs, if one of the rings is completely filled prior to the end of the time period then stop the flow.

Collect, measure, and record the volume of water in each annular ring. Determine the total volume collected in all rings.

Calculate and record the percentage of the total recorded volume collected in each ring.

Evaluate and verify that the spray coverage meets the requirements.

## Requirements

The total combined maximum volume of water collected in the 2 inner annular rings shall not exceed 75 % of the total volume of water collected, and;

The total combined minimum volume of water collected in the 3 inner annular rings shall not be less than 25 % of the total volume of water collected.

## 11.3.8 Annular Ring Test Equipment

This defines the important measurements of the annular ring. The red dashed lines within the annular ring shows optional additional rings.

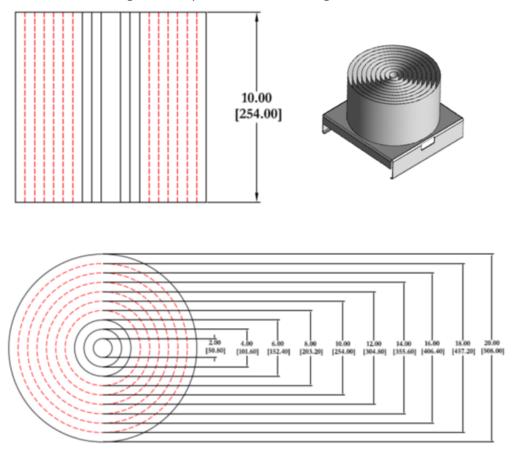


Figure 1: Annual ring specification dimension in inches and mm (in brackets)

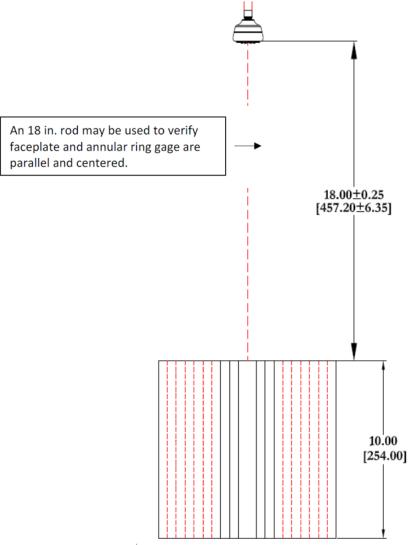


Figure 2 Spray Coverage Test Setup

#### Notes:

- 1. All dimensions in inches. (mm)
- 2. Tolerance: ± 0.06 in. (1.6 mm)
- 3. Suggested Material: (0.03 in. [0.75 mm]) 304 Stainless Steel
- 4. 8 in. 18 in. Rings Optional (Shown as red dotted lines)

Additionally, to the test apparatus described above, use the annular ring test setup shown in Figure 1 and Figure 2.

Note: - The mode used for this test may be selected by the manufacturer and may be different to that used to determine the maximum available flow rate but must be the same as that used to determine the spray coverage.

#### 12 TAPS

## 12.1 General

Taps are available in many configurations from pillar taps which are designed to deliver either a hot or cold supply only to mechanical and thermostatic products that are designed to deliver a blend of hot and cold water through the same outlet or divided flow type outlet. Taps can be manually opening and closing or self-closing via

mechanical or electronic means. They can be typically installed to deliver water to washbasins, bidets or kitchen sinks.

This scheme does not cover rating of taps or outlets that are designed only to deliver e.g. filtered, purified or 'boiling' water etc. for the specific use of making drinks. Also note that these products may also have legislation covering the efficiency of the energy use of these products.

Automatic valves which allow water to be drawn off for use may be of a type that is:

- Manually opened, but which closes automatically giving a set period of flow. The period of flow may be adjustable at the time of installation.
- Electronically opened and closed valves actuated by a system that detects the presence of a user. Such systems may be of touch, or touch less (hands free) operation. The period of flow may be pre-set at the time of installation, or constant, whilst user presence is detected.

In the case of combination tap assemblies, each side of the fitting shall be fully open and the maximum available flow from the outlet shall be measured. Note: In the case of taps (all types) and combination tap assemblies supplied with interchangeable outlets:

Compliance with the Scheme's requirements is based upon the 'as approved' specification. The manufacturer shall clarify in installation instructions whether the Scheme's criteria is invalidated if an alternative outlet is fitted e.g. Scheme compliant as approved - with aerator fitted, but approval invalidated if a flow regulated aerator is fitted or removed.

This Scheme does not cover taps intended to be used to fill bath tubs.

Taps have two functional test requirements: -

- · Maximum available flow rate
- Pressure independency

Where Taps have the potential to be installed on high and low pressure installations the product shall be provided with suitable instructions directing the user to an alternative water-use setting where this is appropriate to do so e.g. the removal or fitting of suitable flow rate regulators. Any instruction related to the maintenance of the product, including cleaning of components, shall direct the user on how to return the product to its intended flow rate.

If so desired, the manufacturer can choose to list the product for both high and low pressure setting on the scheme website

## 12.2 **Test Apparatus**

A suitable supply system capable of delivering cold water at a dynamic pressure of 3 - 0/+0.2 bar for the duration of the test.

Suitable apparatus is described in clause 10.2.2 of EN 200 – with the exceptions that pressure gauges may be substituted for manometers and the cold water supply system shall be capable of delivering the pressure specified above for the duration of the test.

## 12.3 Functional Tests

## 12.3.1 Flow Rate Test Procedure

The procedure described in clause 10.2.3 of EN 200: shall be followed, with the exceptions that:

- For taps that are not limited to low pressure applications only apply a
- 3 -0/+ 0.2 bar pressure to both the hot and the cold inlets, alternatively;
- In the case of taps that are limited to low pressure applications only apply a 0.4 -0/+0.02 bar pressure to both the hot and the cold inlets.

Fully open the flow control

The pressure shall be applied gradually.

Note: For combination taps with divided outlet (mains fed on cold inlet) it is essential that such taps are connected to mains water supply capable of maintaining a minimum flow pressure of 0.4 bar through the cold side.

The flow rate under stable and continuous flow conditions shall be recorded.

In the two lowest efficiency bands it will be necessary to repeat the testing at 1.5 bar of supply pressures for the appropriate product type – see table 5.

## Requirement

The flow rate shall be recorded at the standard reference pressure 3 - 0/+ 0.2 bar (or 0.1 - 0/+ 0.02 as appropriate). This is the flow rate that shall be listed on the labelling scheme.

System	Pressure
Type 1	*(0,15 + 0,02) MPa [(1,5 + 0,2) bar]
Type 1	(0,3 + 0,02) MPa [(3,0 + 0,2) bar]
Type 2	(0,01 + 0,002) MPa [(0.1 + 0.02) bar]
	*refer to pressure independency

Table 5: Flow rate pressures

## 12.4 Scheme Rating Value

The flow rate shall be recorded as a 'flow to sink', 'flow to basin' or 'flow to bidet' expression i.e. for combination tap assemblies the maximum flow rate available and for pillar taps the maximum flow rate available as a calculation of the combined flow from both the cold and hot taps.

Products will be rated as per the table below according to their maximum recorded flow rate recorded to 1 decimal place.

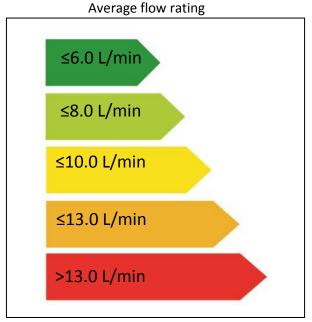


Table 6: Flow rate pressures Taps

## 12.5 Use of Flow Regulators

Where products are supplied with flow regulators 'in the box' then the product can be tested and listed as a low-pressure product with testing conducted at the appropriate declared maximum working pressure; or the product is tested and listed as if the flow regulators were fitted.

Where this is the case suitable instructions in the installation guide must be included to ensure that the configuration that is listed on the scheme is adequately described to enable the declared flow rate to be achieved.

## 12.6 Pressure independency

## Requirement

The lowest flow rate shall not be less than 60 % of the maximum flow rate

## 13. MISCELLANEOUS

## 13.1 General

This section has been set to allow emerging products and technologies to be introduced on a trial basis thus giving recognition of the type of product and for the ability to positively impact reduced waste of water.

## 13.2 **Supply Line Flow Regulators**

A flow regulating device fitted as recommended in the supplied manufacturer's instructions, in either the outlet or inlet of the product or system, designed to produce a

maximum flow of water independent from the supply pressure and limits the stated flow rate to those claimed below at 3 - 0/+0.05 bar pressure.

Flow regulators can either be stand-alone flow regulators or combined tapware components, such as flow regulated aerators or flow regulating check valves

Listing on the Unified Water Label will require verification of the claimed flow rate on the following basis:

Flow rate @ 3 - 0/+0.05 bar = Claimed maximum flow rate +0/-20%

## **Examples**

6 litres per minute claimed flow rate = 6 +0 -1.2 (4.8 to 6) litres per minute

8 litres per minute claimed flow rate = 8 +0 -1.6 (6.4 to 8) litres per minute

10 litres per minute claimed flow rate = 10 +0 -2.0 (8.0 to 10) litres per minute

## 13.3 Verification of listed product

Claimed flow rate with +0/-20% tolerance to be tested @1.5 and 3.0 bar pressures.

N.B. It is strongly recommended that when fitting a flow regulator to a terminal fitting or any part of a system that supplies water to a flow regulator, it must be compatible with such a system, any fitting within the system or any equipment. In other word the addition of the flow regulator does not affect the safety or performance of the equipment or fitting for the purpose for which it was originally intended.

## 14. ENERGY

#### 14.1 General

It is recognised that the amount of energy used to heat water can be a significant contributor to the cost of running a home. With this in mind, it can be useful to identify the amount of energy used in running a terminal fitting for the consumer as part of the general European water label information.

Note: The "Best of All" approach has identified that for some countries the current methodology should be improved and therefore further discussions will be ongoing during the transition period.

## 14.2 Calculation

To calculate, consistently, the energy used to heat water, average supply and delivery temperatures along with average use patterns have to be established. The basic calculation is based on first principle physics: -

# Energy [kWh] =Mass [kg] x spec.Heat-coefficient of water [kWh / (kg x K)] x Delta T [T]

This basic calculation coupled with average use times can easily be used to calculate expected annual energy consumption.

14.3 Average use times to be used for the following products are: -

i. Basin (& bidet) taps: - 1 minute per event, 5 events per person per day

ii. Kitchen taps: - 1 minute per event, 5 events per person per day

iii. Showers: - 7 minutes per event, 1 event per person per day (handsets & mixer controls)

iv. For basin (& bidet) taps and showers the average outlet temperature is always regarded as 38°C while for kitchen taps the average outlet temperature is regarded at 45°C. In all cases the average seasonally adjusted inlet temperature is regarded as 15°C.

Core assumptions have been taken directly from the European Commission study into taps and showers task 3 report: users. For reference purposes this document can be found via the following link: -

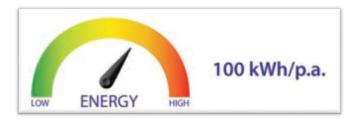
http://susproc.jrc.ec.europa.eu/taps and showers/docs/Task3 2ndTWG v2.4.pdf For Bath tubs, the same core calculation can be used to help users understand, in energy terms the cost of filling the bath tub for each bathing event.

The energy icon can be added to the base of the European Water Label to depict to the consumer the expected annual energy cost of using the product. It is required that all basin taps, kitchen taps, showers (handsets and mixer controls) and bath tubs shall carry the energy icon. The energy icon shall in all cases be placed under the main water rating and to the far left of the space provided for all technical icons (for the applicable categories).

An example of the energy icons can be seen below:

Description Icon Applicable to

Energy\* Calculation of energy use



All taps and showers

Energy Fittings that use an Energy Saving mode



All taps and showers

The energy Icon needle will be set according to the kWh/p.a. calculated from 10.2 and then set at an angle determined in the Unified Water Label Guidelines that provide Manufacturers with label design and use.

## 15. TECHNICAL ICONS

## 15.1 **General**

To enhance the label and to highlight to consumers technical features present, manufacturers are able to add a maximum of three technical icons (in addition to the energy icon) to the label.

## a. Allowable

## b. Icons

To be defined along with their qualifying criteria.

as this is assured by closing the flow; Force to

Products to be rated at the

overcome =6 Nm

break flow rate

Shower and Ta	ned along with their qualitying cr aps Icons	iteria.	
Technology Thermostatic	Description Must meet EN 1111 &/or EN 1287	Associated Icon  38°C  +	Applicable to Showers/taps that meet EN 1111 and/or EN 1287
Bath/Shower	Including Hand sets and Spray Handset	+°C -°C	Bath Shower Taps
Boost (typically used with showering or vessel filling)	Additional force required/movement to fully open flow control or press boost button. Must be auto return to default flow rate when flow rate is turned off I.e. temporary flow; this must be a second deliberate and separate action to the normal flow control		Showers/taps
Water Break (typically, but not limited to single lever mixer taps)	Additional force/action required – can be in the same plane as normal opening function. Does not need to be auto return		Taps: - Single lever - Electronic controls

Single Lever Mixer Taps	Standard dual flow mixer taps		Taps
Timed Flow	Taps that have a variable or fixed concussive timed flow		Showers/taps
Shower Handset	Shower Handset only		Shower Handsets
Sensor	If proximity or motion sensing  – auto off after removal of hands maximum 2 seconds. Where the sensor is artificially blocked the maximum run time is 1 minutes. If unit is powered off must auto off for water flow	·))))	Showers/taps
Cold Start	Use of a specific cold start function can reduce the unintended use of hot water (that could be wasteful) Single lever products to have cold start in the central lever position	+°C	Taps: - Single lever - Electronic controls - Pillar taps - 3 handle

Conveys 10% reduction in energy rating – ref Swiss system

Kitchen taps that use an

Spout extendable Spout

Extendable



Kitchen Taps



#### 16. REPORTING AND MONITORING

Signatories shall submit to an Independent Inspector – appointed by the Scheme – on an annual basis relevant data. This will enable the Independent Inspector to compile an annual report based on compliance with the Voluntary Agreement (the 'Reports') according to the guidelines in this Section and shall include:

- Company name and Scheme registration number
- Market data
- · Registration of products listed, type
- Production of said product
- Market share of registered products
- Audit, test results undertaken by third party test house plus marketing material
- Annual comparison to verify Scheme growth and market penetration

The 'Report' will commence with the collation of data during 2<sup>nd</sup> quarter 2019 to provide independent evidence to establish a baseline for a Voluntary Agreement. A second report will be issued in the 4<sup>th</sup> quarter 2019 following a 6 month period from the issue of the first report to monitor scheme growth During 2020 two further reports at 6 month intervals will be issued, with 2021 an annual report will be issued thereafter.

The Independent Inspector shall send a request to signatories to file their data reports with the consolidated 'Progress Report' issued within three months by the Independent Inspector. The Scheme Steering Committee will receive the 'Report' containing consolidated data, no individual data will be made available to any third party. The Independent Inspector shall be responsible for ensuring confidentiality of signatory's identity and data and if requested to do so enter into non-disclosure agreement with each signatory.

The Steering Committee shall meet twice yearly to discuss progress and the findings of the annual report. This committee will decide if an independent audit on the annual report is necessary to verify accuracy of data. If requested the Steering Committee will appoint an independent auditor who will be required to maintain confidentiality of data and signatories. If necessary, the auditor will enter into non-disclosure agreement with each signatory before having access to the data.

See annexes for copy of the Independent Inspector/auditor engagement letter.

## 17. STEERING COMMITTEE

Each signatory to the VA as well as the European Commission shall have the right to nominate one person to represent it at the Steering Committee.

The Steering Committee shall elect, from amongst its members a Chair. The Chair shall be responsible for convening the Steering Committee at least twice a year, in order, to review progress, analyse and discuss reports presented by the Independent

Inspector. The Chair shall have no executive or representative function unless this is delegated to them by the Steering Committee. Meetings of the Steering Committee will be open to:

- A representative from a Signatory Company
- A representative from the European Commission, Members States and Member States of EEA or EFTA
- Invite guests from related NGO's, related Organisations such as European trade bodies representing Merchants, Retailers, Water Utilities and other manufacturers

The Committee will always seek to reach a consensus agreement on topics. If consensus cannot be achieved the Steering Committee may reach a decision in accordance with the voting procedure as outlined in section 16. The Steering Committee may decide to develop and adopt additional rules of procedure and to delegate powers where it deems it to be necessary or delegate to sub-committees.

The Steering Committee will be responsible for ensuring full transparency and placing all minutes and supporting papers/presentations are available from the website

## 18. VOTING RULES

All decisions of the Steering Committee are undertaken by consensus. On the occasion where this is not possible a call for a vote on specific topic may be taken by the Steering Committee or by a Quorum. Each signatory shall be entitled to cast a single vote. If the vote indicates a favourable outcome (two thirds majority or greater in favour) but a consensus is nonetheless not achieved, a call to defer decision to the next Steering Committee can be made. At the second meeting, the adoption of a decision shall require (1) a Quorum, or, (2) the agreement of a two-thirds majority of the Quorum.

## 19. PARTIES AND APPLICATION

This Scheme is the culmination of bringing 4 existing labelling schemes together under the 'Best of All' approach in partnership with the European Water Label, Swiss Energy, Swedish Energy and Angip labels to form the Unified Water Label.

It is now addressed to all manufacturers of water 'using' products supplying their products on the EU, EFTA, EEA and bordering country markets.

## 20. APPLICATION

Any manufacturer or Stakeholder selling suitable products on the EU, EFTA, EEA and bordering countries markets can eligible to apply to the Scheme if the product complies with the technical criteria. All applications to be submitted to the Scheme Administrator using the application form and must be accompanied with a completed and sign copy of the declaration of conformity.

Any changes to the technological characteristics of the product for which application is sought, and which may have an influence on the performance of the product and potentially change the classification of the product, should be notified via completion of the appropriate product modification form to the Scheme Administrator.

Copies of certificates of compliance/test reports from third parties can be provided in support of declaration of compliance.

Products shall remain listed as long as the product remains available in the said markets.

The company registration to the Scheme will be invoiced in accordance with the applicable conditions and fees and are due annually. Applications received during the 1st year will be charged pro rata and full rates applied thereafter.

The Unified Water Label scheme will inform the applicant if the application has been successful and provide all the necessary information and guidance on the use of the label, or if the application has been rejected and the reasons for this decision.

## 21. TERMINATION

The Scheme Administrator has the right to cancel or suspend the registration of a product carrying the Unified Water Label. This may be justified e.g. if the criteria of the Scheme are not met, if the information provided is incorrect or not submitted, misleading of information or if no notification of relevant product modification has been provided in due time. The Scheme Director or Independent Inspector will give notice and reasons in writing.

A signatory can terminate his registration to the Scheme at any time by submission by registered mail of a letter of termination to the Scheme Director.

There will be no refund of the fees already paid to the Scheme and all outstanding invoices must be settled prior to termination taking effect.

## 22. REPAIR

The European Bathroom Industry disseminates information to the end user via a multitude of platforms on how to carry out regular maintenance and repair on products, thus ensuring a continued performance from the product.

Manufacturers offer a variety of guarantees, some lifetime and as such carry stocks of these products to meet the criteria of a lifetime guarantee.

Manufacturers regularly carry spares for products over a 5-15 year period dependent on the product type. In addition, the supply chain and installation base carry stocks of components such as washers, flow regulators, cartridges that are replaced more frequently.

## 23. RECYCLE

Metal is an expensive commodity and as such taps and showers have a collective value. The builder or installer will collect old used product until they have enough bulk to sell to a waste collector for scrap metal, which is then mechanically separated, melted to be used again for manufacturing purposes. Recycling used taps and showers are sent for recycle due to their monetary value.

## 24. AUDITING

The Scheme auditing is coordinated by the Scheme Administrator in conjunction with the Independent Inspector. Audits are performed regularly by approved test houses who have previously registered to the Scheme on products randomly electronically selected. The cost and arrangement of testing is the responsibility of the listing company. For full details of undertaking audit and applicable third party test houses<sup>45</sup> please visit the website: www.europeanwaterlabel.eu

Compliance with the audit is mandatory and forms part of the annual report produced by the Independent Inspector.

The Scheme Administrator in conjunction with the Independent Inspector will arrange for 5% of the products (and accompanying literature, point of sale material and advertisements in relationship to the listed products) on the Scheme database to undergo an audit for compliance with the Scheme's requirements on an annual basis. The 5% will be selected, across the qualifying product ranges. Various options exist to qualify for audit. See <a href="https://www.europeanwaterlabel.eu">www.europeanwaterlabel.eu</a> for further details on these options<sup>46</sup>

It is expected that the manufacturer will retain internal documentation to verify any claims made in verification of products. Internal documentation may also be subject to audit as part of the normal requirements of ratification of manufacturers claims see <a href="http://www.europeanwaterlabel.eu/testhouses.asp">http://www.europeanwaterlabel.eu/testhouses.asp</a>.

## 25. NON-COMPLIANCE, SANCTIONS AND PENALTIES

Only products that have been granted acceptance to the Scheme and that conform to all its requirements may be listed in the Scheme database and may carry the Unified Water Label.

Any inappropriate use of the Unified Water Label either on the product, packaging or supporting marketing/technical material will result in the signatory being warned to conform to the use requirements or being withdrawn from the Scheme, and the use of the label from all marketing/ technical material should be withdrawn with immediate effect.

This Scheme is a voluntary Scheme developed to raise awareness on the water and associated energy performance of water using bathroom products, and to promote best practice for water efficiency within the bathroom and kitchen environment. In the event of a dispute between parties, the practice of 'good faith' for resolving the dispute under the Scheme will be used. In the event that a dispute cannot be resolved between the parties, formal notification of the dispute must be lodged with the Independent Inspector who will undertake to resolve the dispute as quickly as possible.

In case of evidence of non-compliance, the Governance Committee will review the evidence and make recommendations.

If a signatory fails to meet the requirements of the Scheme and the Unified Water Label, the Governance Committee will address a warning. The signatory will have to take all necessary measures to redress the situation within 3 months.

If the signatory takes the necessary measures, but these measures are insufficient to comply with the requirements, the Governance Committee may decide to extend the deadline for compliance.

If the signatory fails to take the necessary measures within the set deadline and no extension is given, he will be deemed not to comply with this Scheme and will be deleted from the list of signatories. In this case, the Scheme and label administrator

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<sup>45</sup> www.europeanwaterlabel.eu

<sup>46</sup> www.europeanwaterlabel.eu/audit

will publicly state that the signatory no longer participates in the Scheme. No refund of fees paid or due can be claimed either in part or in full.

If a non-signatory or a former signatory uses the Unified Water Label in a way which does not comply with this Scheme, the Governance Committee will take any reasonable step, including legal measures if available, to prevent any prejudice to this Scheme, label and its signatories.

## 26. REVISION

This Scheme and label is based on the current state of the art. The signatories via the Steering Committee platform in agreement with the European Commission agree to review its objectives should the technology, economic and societal situation require so. In the event of a review, the signatories commit themselves not to lower the requirements of the current Unified Water Label. Any changes and updating of this Scheme will be handled by correspondence or where necessary a formal meeting. A transition for implementation of any changes will be agreed at the time.

## 27. DURATION

Scheme registrations are for a rolling 12 month period, running from January to December. Registrations undertaken during the first year will be charged on a pro rata basis. To cease registrations a formal resignation letter is required.

## 28. MARKETING

European and National Associations will ensure that the present Scheme is accessible on the internet and promoted. All National Associations are encouraged to promote the Unified Water Label at National level. All signatories to refer to the Scheme on their websites, brochures, registered products documentations etc.

## 29. COPYRIGHT

The Unified Water Label owns the full copyright.

## 30. DISCLAIMER

The Unified Water Label is a voluntary not for profit scheme aimed at raising awareness and informing on the water and associated energy consumption and performance of water using bathroom products in Europe. The Scheme and label administrator cannot be held liable for any misuse or counterfeit use of the label under the Scheme. This Scheme does not endorse the quality of the products labelled or the quality control of the manufacturing process.

## 31. THE ADVANTAGES OF A SELF REGULATORY MEASURE

The European Bathroom Industry takes its social responsibility seriously, embracing the full ethos throughout its manufacturing, product design and corporate and social marketing activities.

The Unified Water Label (UWL) acknowledges the history and experience of 4 existing European Schemes as its foundation. The 4 National and European schemes incorporate National and European legislation, harmonised Standards as core criteria ensuring UWL Labelled products are compliant in the EU markets.

The diversity of channels to market, complexity of choice adds a further challenge to ensuring that the consumer purchase, installation and compatibility offer no more than the stated water and energy levels as depicted on the Label. The complexity of the route to market and choice could compromise this position. Water using bathroom products are a component part of a complete system and should be viewed accordingly, to maintain performance, consumer confidence and not dilute brand status. Components, fixtures and water pressures plus flow all play important roles in ensuring that the product delivers the performance the consumer expects.

The Unified Water Label offers a credible labelling scheme that is an educational tool to aid in a greater informed selection process, that will influence the drive to reduce water and energy consumption. Consumers are becoming more environmentally aware and seek out this information when purchasing products. The Unified Water Label embraces all water using bathroom products, enabling identification of water and energy metrics for the complete bathroom – a unique aspect of the Unified Water Label scheme.

This report highlights the growth within the European Water Label for taps and showers and supports the Industry VA proposal together with the 3 year transition road map.

The 4 existing labelling schemes, with more than 10 years development have all influenced and improved choice of efficient products entering the market, that delivers a good performance, that uses less water and energy. The Unified Water Label is on a journey to merge the databases of the 4 schemes into one and align the technical criteria that manufacturers now must meet. This transition will take 2 years and is expected to be completed by January 2021.

## 31.1 Categories Included in the Unified Water Label

Showers (including solutions, outlet, heads, handheld, electric), WC's (including a complete suite, independent bowls, flushing cisterns and mechanisms), Urinals (including bowls, independent flushing cisterns, controllers and flush free), baths, flow regulators and grey water recycling units. The proposal for a VA concentrates on taps and showers, excluding electric showers as does this paper.

The UWL does not included bath filling taps (only the shower aspect is included) due to vessel filling aspects. Shut off valves or behind the wall valves are also excluded as they ensure no pressure loss and avoid a negative impact on consumer comfort.

## 31.2 Growth of the Unified Water Label

Data taken from the Unified Water Label (previously the European Water Label and without the merger of the Swedish, Swiss and Anqip databases, as this information is not available due to the timeframe of merger of all databases and duplication on some products will arise) shows the growth of product registrations since 2008 – see Chart A. In 2008 the Scheme was supported by 18 manufacturers with a database of 800 products, this swelled over the years and in 2019, 154 brands support a database of 11,864 'live' products across the 13 categories that are registered.

The Scheme is annually cleansed to ensure only available products found in the marketplace, are shown on the database however, information on products removed is retained for historical purpose.

## Chart A

	Product Registrations	Company Registrations
2008	800	18
2009	1069	22
2010	1288	23
2011	1904	29
2012	2343	39
2013	3600	50
2014	7350	73
2015	8300	89
2016	9750	120
2017	10900	132
2018	11000	143
2019	11864	154

Cleaning of scheme annually to ensure its fresh and only contains products available in the market are visible on the database

The Unified Water Label database consists of products registered across 13 categories, as consumers seek efficiency information for all water using bathroom products, not just taps or showers. The current database figures exclude those from the Swedish Energy, Swiss Energy and Anqip due to the ongoing merger. Collectively a further 30 manufacturing brands from these schemes will join the UWL bringing registrations closer to 180 in the first instance and swelling the database of available products excess of 12,000.

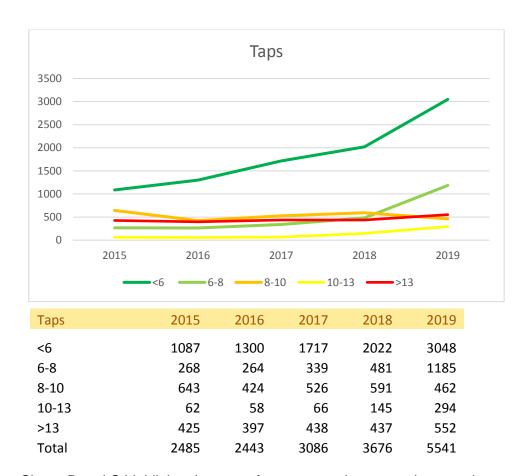
## 31.3 **Taps**

The database for taps currently has 5,541 individual tap registrations (including kitchen, basin and bidet taps) across the EU of which 9 brands registering 349 are UK registrations only as many brands sell across many European countries.

Chart B shows the continued growth of registered taps.

The Unified Water Label has an electric shower category and although they are also caught by an energy label 705 registrations exist for Eire and UK.

## Chart B



Charts B and C highlights that manufacturers continue to register products across all 5 grades of the label with growth of up to 34% in the most efficient grades. Manufacturers are committed to registering all products across the 5 grades, thus ensuring the customer has the correct information to make an informed choice.

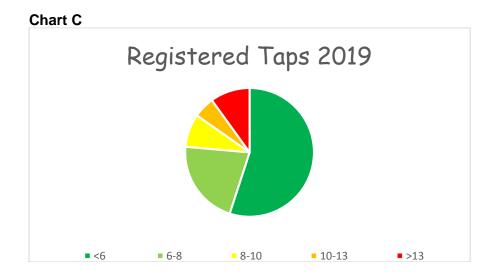
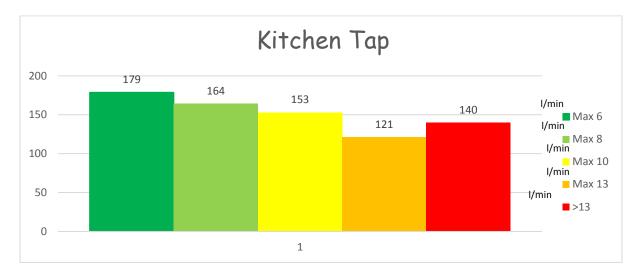


Chart D depicts the split across the 5 gradients for kitchen taps only.

Chart D



Kitchen taps collectively represent 757 registrations across the 5 grades. This sector has seen growth of 23% on registrations from 2018 figures.

## 31.4 Showers

The two main categories of water use within the domestic environment are WC flushing and showering. On average 25% of water is associated with showering and 22% for WC flushing<sup>47</sup> according to an Energy Saving Trust (UK) report on water use in the home.

**Chart E Showers** 

Shower	2015	2016	2017	2018	2019
<6	275	275	489	668	832
6-8	265	256	292	228	641
8-10	264	245	248	258	279
10-13	220	204	218	217	265
>13	814	688	778	801	675
Total	1838	1668	2025	2172	2692

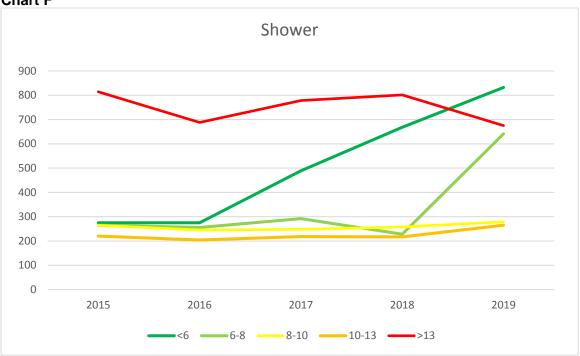
The UWL has seen growth in registrations for showering products as depicted by Chart E as the Unified Water Label moves to be recognised as the preferred scheme for manufacturers. Across the 5 grades a growth of 24% from 2018 to 2019 registrations.

Chart F shows the growth of showers in the various categories and the movement in the market from higher flow to more efficient models which embrace innovative technologically advancements and consumers become more aware of the environmental impact.

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<sup>&</sup>lt;sup>47</sup> https://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithWater%287%29.pdf

## Chart F



## 31.5 Market Penetration

In the last three years the Unified Water Label has seen a 20% growth in company registrations and a growth of 26% in product registrations. Manufacturers are now fully supportive of the Unified Water Label, following the extensive discussions that have been undertaken with merging 4 existing schemes and as the consolidation of the databases takes place over the next two years this will increase at a greater percentage.

The registered brands collectively have a market share of over 62% of taps and shower units sold in the European market, this is set to increase to 68% over the next two years as the 4 schemes merge registrations into one central database but does not account for any organic growth from further support. The representation of 80% of units sold across EU 27 is expected to reach this target within 3 years from complete merger and organic growth.

## 31.6 Commitment

Following the EBF Meeting held February and July 2019 members voted to support the full commitment of a VA criteria, with commitment letters now being received, (see Annexe) product registrations increasing, and the Independent Inspector, RSM Global, commences the process to identify market share. A copy of the data collation form is also appended to this document.

## 31.7 Justifying market share

Industry is fully aware that a VA awarded carries with it a series of criteria, one of which is representing 80% of units sold in the EU. The Unified Water Label has contracted RSM Global to undertake market research that verifies actual representation of the Unified Water Label in its current form, this will provide the base to work from and further research of data will be undertaken at the end of 2019 to verify progress. 2020 will see this verification research undertaken twice during the

year and thereafter annually. A copy of the verification data sheet is attached under Annexes.

## 31.8 Environmental Savings

Using a variety of published, desk research and Industry expertise the Unified Water Label has identified potential savings in water and energy within the domestic market for water using bathroom products.

Within the Unified Water Label proposal 4 scenarios are identified and align with the Scheme roadmap on growth towards achieving the 80% representation of the market. Chart 24 – 26 within Chapter 3: Environmental Modelling shows the decline in water and energy use in relation to the various scenarios.

#### 31.9 Market

#### Consumer

There are currently over 500 million people living in the EU and following the UK departure this will fall by 67 million. The population live in over 283 million properties with 54% of the population living in 4 major countries; Germany, France, Italy and the UK. 13% of dwellings are classified as vacant or second homes and over 9%, mainly in the Central European Countries are classified as dwellings with no running potable water.

Consumer habit plays an important part in water use, and this varies across the EU; number of showers and baths taken, how consumers clean dishes, vegetables, frequency and growth in water play apparatus such as pools, toys etc.

Product alone cannot achieve water saving, consumers play an important role in ensuring that products are installed and used correctly. A water efficient tap is no longer efficient if it is left running – consumer intervention is crucial and changing behaviour is critical if water and energy consumption is to be reduced without compromising health and safety.

Water using bathroom products can help to achieve greater savings in water and energy, however, great care and attention must be given to health and safety of consumer. Stagnant pipes, where water flow is severely reduced allows air borne pathogens to thrive

#### Household

The EU Nations collectively have 283 million domestic dwellings of a diverse makeup from ownership, rental, detached, semi and apartments all providing an eclectic mix of product each delivering a different performance of acceptable levels.

Water use is also dramatically different across EU28 from using water sparsely to no water shortage. Each country also has a different environmental driver as in the Scandinavian Countries they see energy as the most important fact, while the Mediterranean Counties see water as the primary metric, illustrating the complexity that exists.

## 32. WHY A VOLUNTARY AGREEMENT

The Unified Water Label initiative 'Best of All', brings together 4 existing Schemes that collectively represent 68% of units sold in EU28. Verification of exact market share is required by the Independent Inspector. Interest is growing with registrations being received on a weekly basis from companies selling across the European market. Having this traction in the marketplace supported by visibility of the label within websites, product literature and other marketing material, the Unified Water Label is expected to reach the 80% of units sold within 3 years, as identified by the Unified Water Label 3 Year Transition Road Map.

A voluntary initiative will move quicker to reflect changes in product design, consumer acceptability and embracing harmonised legislation change. A voluntary initiative enables flexibility that addresses how products are sold in the marketplace, maintain choice at the same time as influence movement to greater efficient product that delivers no less performance. This is already evident in the Unified Water Label growth.

The voluntary initiative complements other existing legislation and is already on a journey that if the European Commission decides a mandatory label is preferred then discussions commence from a standing start and will have to build from there. A mandatory will increase costs for National Governments at a time that austerity measures are still in existence, these could be considerable, whereas a voluntary initiative run by Industry guided by strict VA criteria will be cost neutral.

This proposal has been prepared by the European Bathroom Forum in partnership with Anqip, Swedish Energy and Swiss Energy, European and National trade bodies representing the tap and valve manufacturers.

## **ANNEXES**

## **ANNEXE 1:**

The following hyper-links have been used throughout this proposal as base data or referenced.

Article 15(1) of the Ecodesign Directive.
 <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN</a>

• Article 15(2) (a) to (c) of the Ecodesign Directive. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

Article 15(3) of the Ecodesign Directive.
 <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN</a>

Article 17 of the Ecodesign Directive.
 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN

- BRG Building Solutions 2016 BRG Building Solutions. 2016. Taps and Mixers/Faucets. This report is a paid for report
- COMMISSION RECOMMENDATIONN (EU) 2016/2125 of 30.11.2016 on guidelines for self-regulation measures concluded by industry under Directive 2009/125/EC of the European Parliament and of the Council:
   <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN</a>
- Communication from the Commission on Ecodesign Working Plan 2016-2019, <a href="https://ec.europa.eu/energy/sites/ener/files/documents/com\_2016\_773.en\_.pdf">https://ec.europa.eu/energy/sites/ener/files/documents/com\_2016\_773.en\_.pdf</a>
- Communication from the Commission on Ecodesign Working Plan 2016-2019 https://ec.europa.eu/energy/sites/ener/files/documents/com 2016 773.en .pdf
- DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for the setting of Ecodesign requirements for energy-related products (recast):
   <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0125&from=EN</a>
- Ecotapware Task 2: Economic and market analysis Task 3: User behaviour <a href="http://susproc.jrc.ec.europa.eu/ecotapware/docs/Task">http://susproc.jrc.ec.europa.eu/ecotapware/docs/Task</a> 2 & 3 Draft Report.p
   <a href="http://susproc.jrc.ec.europa.eu/ecotapware/docs/Task">df</a>
- Euroconstruct https://www.euroconstruct.org/ec/reports
- Unified Water Label http://www.europeanwaterlabel.eu/
- Eurostat
   https://ec.europa.eu/eurostat/data/database

- Follow-up of the MEErP Preparatory Study on Taps and Showers 2018
   <a href="http://susproc.jrc.ec.europa.eu/taps\_and\_showers/docs/Follow\_up\_Taps\_Showers\_v1.8\_clean.pdf">http://susproc.jrc.ec.europa.eu/taps\_and\_showers/docs/Follow\_up\_Taps\_Showers\_v1.8\_clean.pdf</a>
- <a href="http://www.energimyndigheten.se/en/sustainability/households/other-energy-consumption-in your-home/water-and-water-heater/energy-efficient-taps-and-shower-heads/">http://www.energimyndigheten.se/en/sustainability/households/other-energy-consumption-in your-home/water-and-water-heater/energy-efficient-taps-and-shower-heads/</a>
- http://www.europeanwaterlabel.eu/registeredcompanies.asp
- <a href="https://angip.pt/index.php/en/technical-committees/90-comissao-tecnica-0802">https://angip.pt/index.php/en/technical-committees/90-comissao-tecnica-0802</a>
- <a href="https://www.bfe.admin.ch/bfe/de/home/effizienz/die-energieetikette.html">https://www.bfe.admin.ch/bfe/de/home/effizienz/die-energieetikette.html</a>
- <a href="https://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithW">https://www.energysavingtrust.org.uk/sites/default/files/reports/AtHomewithW</a> ater%287%29.pdf
- MEErP Preparatory Study on Taps and Showers 2014
   <a href="http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp\_study">http://publications.jrc.ec.europa.eu/repository/bitstream/JRC92487/meerp\_study</a> ts final draft v2 codes.pdf
- Annex of the COMMISSION RECOMMENDATION (EU) 2016/2125 on guidelines for self-regulation measures concluded by industry. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H2125&from=EN</a>

## **ANNEXE 2:**

## **Engagement Letter:**

The Water Label Company Limited Engagement Letter contd.



Appendix 1

#### REPORT OF FACTUAL FINDINGS

To the Steering Committee of the Unified Water Label and Directors

In accordance with our engagement letter dated 11 April 2019, we have performed the procedures agreed with you, as set out below, in respect of the financial data submitted by the participating member companies of The Water Label Company Limited's ("the Entity") Water Label Scheme ('the Financial Information').

#### Responsibilities

As Directors of the Entity, you are responsible for:-

- · Considering the sufficiency of the procedures for your purposes;
- Maintaining the register of the companies participating in The Water Label Scheme and the registered products; and
- Ensuring that all accounting and other records, documentation and related information (including representations) we consider necessary for the purpose of this engagement are made available to us.

It is our responsibility to prepare this report of factual findings.

We make no representation and assume no responsibility regarding the sufficiency of the procedures for your purposes.

Purpose of this report and restrictions on its use

This report was prepared on your specific instructions for the purpose of communicating the factual findings of our work on the procedures performed, as specified below, and should not be relied upon for any other purpose. Our report may not have considered issues relevant to any third parties, any use such third parties may choose to make of our report is entirely at their own risk and we shall have no responsibility whatsoever in relation to such use. RSM UK Tax and Accounting Limited neither owes nor accepts any responsibility whatsoever in respect of, or arising out of, or in, connection with the contents of this report to any parties, other than the Steering Committee and directors of the Entity, who may have sight of this report and shall not be liable for any loss, damage or expense of whatever nature which is caused by their reliance on this report.

Our report is prepared solely for the confidential use of the Entity and solely for the purpose of the data collection, consolidation and verification of The Water Label Scheme information submitted by the participating member companies. This report is released to the Entity on the basis that it shall not be copied, referred to or disclosed, in whole or in part (save as otherwise permitted by agreed written terms), without our prior written consent. Without assuming or accepting any responsibility or liability in respect of this report to any party other than the Entity, we acknowledge that the Entity may be required to disclose this report to a party demonstrating a statutory right to see it, to enable such other parties to exercise statutory rights of access to this report.

This report is designed to meet the agreed requirements of the Entity and particular features of our engagement determined by the Entity's needs at the time. This report should not therefore be regarded as suitable to be used or relied on by any other party wishing to acquire any rights against RSM UK Tax and Accounting Limited for any purpose or in any context. Any party other than the Entity which obtains access to this report or a copy and chooses to rely on this report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, RSM UK Tax and Accounting Limited will accept no responsibility or liability in respect of this report to any other party and shall not be liable for any loss, damage or expense of whatsoever nature which is caused by any person's reliance on representations in this report.

## Specific procedures performed

We have performed specific procedures, in accordance with International Standard on Related Services ('ISRS') 4400 'Engagements to Perform Agreed-upon Procedures Regarding Financial Information', on the financial information, solely for the purpose of the data collection, consolidation and verification of The Water Label Scheme information submitted by the participating member companies. The specific procedures performed and agreed with you, which do not constitute either an audit or a review, consisted of the following:



#### The Water Label Company Limited Engagement Letter contd.

Subject to our obligation to conduct our work in accordance with applicable professional standards, we cannot accept responsibility for detecting fraud, misrepresentation (whether by management or by any person of whom we make enquiries) or other illegal acts. Notwithstanding the preceding sentence, if we become aware in carrying out the Service of any indications of fraud, misrepresentation or other illegal acts, we will inform you as soon as practicable and to the extent permitted by law or the rules of any relevant governmental or regulatory body.

By issuing the Report we will make no representation and assume no responsibility regarding the sufficiency of the procedures for your purposes and we will indicate so in our Report.

The procedures that we will perform will not constitute an audit or a review made in accordance with International Standards on Auditing (UK) or International Standards on Review Engagements and consequently, no assurance will be expressed.

#### **OVERSEAS JURISDICTIONS**

Except as explicitly referred to in this letter, our work will not comply with professional standards and practices in any jurisdiction other than the UK. Accordingly, other than as agreed within this letter, our work should not be relied upon as if it had been prepared in accordance with professional standards and practices in any country other than the UK. We accept no duty or responsibility to, and deny any liability to, any party in respect of any use of our report in any other jurisdiction (including, but not restricted to the United States of America, Japan, and Australia).

#### REPORTING

Upon completion of the agreed-upon procedures we will provide you with a Report of our factual findings, an outline of which is attached at Appendix 1. Our Report will not express any opinion or overall conclusion on the procedures we have performed. Our Report will be prepared solely for your exclusive use and solely for the purpose of providing a report of factual findings from our work and to report to you the results of those procedures.

Our Report is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without our prior written express consent. We accept no duty, responsibility or liability to any other party in connection with the Report or this engagement.

#### ETHICAL STANDARDS FOR AUDITORS

Where you have engaged RSM UK Audit LLP as your statutory auditor, we will not undertake any work inconsistent with RSM UK Audit LLP's role as statutory auditors and the constraints of Revised Ethical Standard 2016 issued by the Financial Reporting Council. In particular, we are required to notify RSM UK Audit LLP, in advance, of this engagement of any proposed additional work to be undertaken by us. For the avoidance of doubt, you hereby authorise us to release such information as may be necessary for RSM UK Audit LLP to comply with its ethical obligations and to deliver statutory audit services to you. It is understood that RSM UK Audit LLP will notify us whether the proposed work will impair their audit independence. It is only after we have received such notification that we will be in a position to determine whether we can provide the proposed Service.

#### TIMETABLE

Our work may depend upon receiving without undue delay your full co-operation and the disclosure to us of all the records and related information (including certain representations) as we may need for the purposes of the Service from the participating member companies and from The Water Label Company Limited. We will discuss with you as soon as practicable any undue delay or lack of full co-operation or other difficulties we encounter with completing this work as and when any such problems arise. If information not provided within the timescale stated by us when we request it, we will accept no responsibility for any penalties or interest that may arise as a result.



28 June 2019

#### The Water Label Company Limited Engagement Letter contd.

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## CONTACT POINTS AND AUTHORISATION The core RSM team will be as follows: Anne Lakin Partner Alex Hire Manager Philip Jackson Manager Carol Locker Senior Administrator The above team will handle all key aspects of the engagement. However, we will utilise other professionals from an RSM Entity, if additional resources are required. Our understanding is that we shall report to the Entity and our principal contact, for the time being, will be Yvonne Orgill. Notwithstanding the above, the Entity authorises us to rely on any instructions, notices or requests (whether in writing or not and however communicated to us) from any other person authorised, or reasonably believed by us to be authorised, by you to give such instructions, notices or requests. In the event of any queries please email Carol.locker@rsmuk.com or Philip.jackson@rsmuk.com. **FEES** Our fees and expenses for this work will be your sole responsibility and should you decide not to proceed with the Service, you will reimburse our pro rata costs. TERMS AND CONDITIONS OF BUSINESS AND ADDITIONAL TERMS Our Terms and Conditions of Business form part of this Engagement Letter. They include certain of the definitions used in this letter. Please read carefully these Terms and Conditions of Business, which apply to all our work, as they include various exclusions and limitations on our liability, save where excluded below. AGREEMENT OF TERMS We shall be grateful if you will confirm in writing your agreement to these terms by signing and returning the enclosed copy of this letter, in the prepaid envelope provided, or let us know if the Service covered is not in accordance with your understanding of the assignment to be carried out under the terms of this engagement. For the avoidance of doubt, the terms covered by the Engagement Letter shall take effect upon receipt by us of your written agreement to them, or upon commencement of the work to which they relate, whichever is the sooner. Yours faithfully KSM UL T. 1 **RSM UK Tax and Accounting Limited** 28 June 2019 Encs. Terms and Conditions of Business dated May 2018 Agreed for and on behalf of The Water Label Company Limited Signed Date Directors Agreed for and on behalf of the Steering Committee of the Unified Water Label Date Yvonne Orgill , Chief Exceutive Officer

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#### Appendix 1

#### REPORT OF FACTUAL FINDINGS

To the Steering Committee of the Unified Water Label and Directors

In accordance with our engagement letter dated 11 April 2019, we have performed the procedures agreed with you, as set out below, in respect of the financial data submitted by the participating member companies of The Water Label Company Limited's ("the Entity") Water Label Scheme ('the Financial Information').

#### Responsibilities

As Directors of the Entity, you are responsible for:-

- · Considering the sufficiency of the procedures for your purposes;
- Maintaining the register of the companies participating in The Water Label Scheme and the registered products; and
- Ensuring that all accounting and other records, documentation and related information (including representations) we consider necessary for the purpose of this engagement are made available to us.

It is our responsibility to prepare this report of factual findings.

We make no representation and assume no responsibility regarding the sufficiency of the procedures for your purposes.

Purpose of this report and restrictions on its use

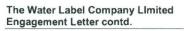
This report was prepared on your specific instructions for the purpose of communicating the factual findings of our work on the procedures performed, as specified below, and should not be relied upon for any other purpose. Our report may not have considered issues relevant to any third parties, any use such third parties may choose to make of our report is entirely at their own risk and we shall have no responsibility whatsoever in relation to such use. RSM UK Tax and Accounting Limited neither owes nor accepts any responsibility whatsoever in respect of, or arising out of, or in, connection with the contents of this report to any parties, other than the Steering Committee and directors of the Entity, who may have sight of this report and shall not be liable for any loss, damage or expense of whatever nature which is caused by their reliance on this report.

Our report is prepared solely for the confidential use of the Entity and solely for the purpose of the data collection, consolidation and verification of The Water Label Scheme information submitted by the participating member companies. This report is released to the Entity on the basis that it shall not be copied, referred to or disclosed, in whole or in part (save as otherwise permitted by agreed written terms), without our prior written consent. Without assuming or accepting any responsibility or liability in respect of this report to any party other than the Entity, we acknowledge that the Entity may be required to disclose this report to a party demonstrating a statutory right to see it, to enable such other parties to exercise statutory rights of access to this report.

This report is designed to meet the agreed requirements of the Entity and particular features of our engagement determined by the Entity's needs at the time. This report should not therefore be regarded as suitable to be used or relied on by any other party wishing to acquire any rights against RSM UK Tax and Accounting Limited for any purpose or in any context. Any party other than the Entity which obtains access to this report or a copy and chooses to rely on this report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, RSM UK Tax and Accounting Limited will accept no responsibility or liability in respect of this report to any other party and shall not be liable for any loss, damage or expense of whatsoever nature which is caused by any person's reliance on representations in this report.

## Specific procedures performed

We have performed specific procedures, in accordance with International Standard on Related Services ('ISRS') 4400 'Engagements to Perform Agreed-upon Procedures Regarding Financial Information', on the financial information, solely for the purpose of the data collection, consolidation and verification of The Water Label Scheme information submitted by the participating member companies. The specific procedures performed and agreed with you, which do not constitute either an audit or a review, consisted of the following:





## We will:

- Contact each participating member company directly to request the following relevant data:
- Table 1 European Union 27

		Actual Sales Figures (Units)		
Product Category	Number of Products Registered with Water Label Company Limited	Water Label	Non Water Label	Total
		Number	Number	Number
Taps				
Kitchen taps				
WCs:				
Water closets suite				
Single pan				
WC flushing cisterns				
Replacement flushing mechanism				=
Urinal bowls				-
Independent urinal flushing cisterns				
Urinal controls				
Baths – memo only				
Shower valves				
Shower handsets				

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## The Water Label Company Limited Engagement Letter contd.

Table 2 - United Kingdom

		Actual Production Figures		
Product Category	Number of Products Registered with Water Label Company Limited	Water Label	Non Water Label	Total
		Number	Number	Number
Taps				
Kitchen taps				
WCs:				
Water closets suite				
Single pan				
WC flushing cisterns				
Replacement flushing mechanism				
Urinal bowls				
Independent urinal flushing cisterns				
Urinal controls				
Baths- memo only				
Shower valves				
Shower handsets				

- Summarise and consolidate the data into a total valuation with the initial request being for the data for the 6 months ended 31 December 2018 with subsequent requests to be made annually at 31 December 2019 and onwards
- All relevant data will be requested directly by RSM, and received and processed by them. The data
  will be held by RSM and no individual data will be distributed by them to any other party.
- We will select a sample of 5% of the companies randomly from the companies participating in supply
  of The Water Label Scheme data and :
  - We will contact each company and corroborate to base data for Taps And Showers Data requesting a detail list by units / products to support their total submissions
  - We will obtain a list of all items to support the total number units sold under The Water Label Scheme from the participating companies
  - We will check a sample of these items to the register maintained by The Water Label Company Limited to support their inclusion
  - We will request evidence from the base records of the individual companies to verify the
    data submitted in respect of the total units sold and the relevant split, where items have
    been included in the Water Label column, these items will be verified to the register of
    products held by The Water Label Company Limited to verify inclusion
- We will agree the total submission data to the data submissions together with the % of units included
  in the water label and none water label units and detail the total data % in our report to highlight the
  total period on period changes.

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# The Water Label Company Limited Engagement Letter contd.

We will attend 2 meetings annually to present this report, as requested.

Results of specific procedures undertaken [CONCLUSIONS TO BE ADDED]



## TERMS AND CONDITIONS OF BUSINESS

#### DEFINITIONS

'Client Party' or 'you' or derivatives: The addressee(s) of the Engagement

**Deliverables**\*: The letters, reports, information, advice or opinions given by us in connection with the Services.

'Engagement Letter'. The letter that incorporates these Terms and Conditions of Business together with these Terms and Conditions of Business or as may be varied from time to time in accordance with Clauses 1.3 and/or 2.1.

Information: All documents, information and assistance, including personal data, IT systems and infrastructure that we may require to undertake the Services.

'RSM' or 'We' or derivatives: The United Kingdom body corporate which is a party to the Engagement Letter and delivering the Services under its terms.

'RSM Entities': RSM UK Holdings Limited and persons, bodies corporate or partnerships controlled (directly or indirectly) by it.

'RSM Entities' Privacy Policy': the client privacy policy of the RSM Entities, as amended from time to time, which is available in the Privacy Section of the RSM website at https://www.rsmuk.com/privacy-and-cookies.

'RSM Network': The international network of independent member firms of which RSM is a member, details of which can be viewed at https://www.rsmuk.com/legal-statements.

'RSM Parties': RSM Entities and all other independent member firms of the RSM Network and in each case their affiliates, partners, principals, members, owners, directors, staff and agents, and any successor or assignee.

"Services". The services delivered to the Client Party by RSM and which are detailed in and are subject to the terms of the Engagement Letter.

Virtual Storage Facilities': Means any internet or other electronic facility (whether cloud based or not) designed to store information which relates to Services.

The Services will be provided by an English limited liability partnership or a limited liability company. RSM has nevertheless decided to retain the traditional title of 'partner' to indicate an individual who is authorised to commit RSM.

#### 1 Engagement terms

- 1.1 All Services provided by RSM for the Client Party will be in accordance with the Engagement Letter subject to any subsequent written variation, agreed by an authorised representative of RSM and the Client Party. If for whatever reason that does not happen we will treat the fact that you have instructed us to commence the Services as deemed agreement.
- The Engagement Letter 1.2 replaces and supersedes any previous proposal, discussion correspondence, representation or agreement between us in relation to the Services and forms the whole agreement between us in relation to the same. This clause shall have the effect of excluding the liability of any party to the Engagement Letter for any misrepresentation (other than a fraudulent misrepresentation) made prior to the date of the Engagement Letter
- 1.3 Amendment to these Terms and Conditions of Business may be made only by specific reference to the relevant clause in these Terms and Conditions of Business. In the event of a conflict between these Terms and Conditions of Business and the letter incorporating these Terms and Conditions of Business, the letter will prevail only to the extent of such conflict.
- 1.4 The obligations of each addressee of the Engagement Letter under these Terms and Conditions of Business are several such that no one addressee has any liability or

- responsibility for the actions or defaults of another.
- 1.5 You or we may terminate the engagement pursuant to the Engagement Letter, or suspend the Services provided pursuant to the Engagement Letter, in either case by written notice, at any time, without penalty, though if such termination or suspension occurs whether at your behest or ours, before the Services have been completed, RSM shall be entitled to its fees, expenses, disbursements and VAT, to the date of termination or suspension. If the engagement is terminated or the Services are suspended then RSM and RSM Parties will not be responsible for any fines, penalties, costs, charges interest, consequences of missed deadlines or any other liabilities you may incur and which might have been avoidable had the engagement not been terminated or the Services not been suspended
- 1.6 The terms of the Engagement Letter will apply to any Services whether such Services were performed or provided before or after the signing of the Engagement Letter.

## 2 Changes in scope

- Should you require any services in addition to the Services from time to time, we will be pleased to discuss any request with you. However, prior to accepting or imposing any contractual terms that would commit you to obtaining or providing any Deliverables from us, please discuss the matter with us first. Following such discussions, we will advise you whether or not we are willing to undertake any services in addition to the Services and, if so, the terms on which such services would be undertaken.
- 2.2 Any agreement to provide additional services will include the payment of reasonable additional fees and a

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reasonable additional period within which to provide such services

#### 3 Investment business

- 3.1 We may, in the course of delivery of the Services, assist you with exempt regulated activities that are incidental to the Services.
- 3.2 If, during the provision of professional services to you, you need advice on investments, we may have to refer you to someone who is authorised by the Financial Conduct Authority ('FCA'), as we are not. However, as we are licensed by the Institute of Chartered Accountants in England and Wales, we may be able to provide certain investment services where these are complementary to or arise out of the professional services we are providing to you.
- 3.3 In the unlikely event that we cannot meet our liabilities to you, you may be able to claim compensation under the Chartered Accountants' Compensation Scheme.

#### 4 Fees and expenses

- 4.1 Unless otherwise specifically agreed between you and us, our fees will be charged on the basis of this clause 4 and will be based on hourly rates that take account of the level of partners and staff assigned to the engagement the subject of the Engagement Letter.
- 4.2 Expenses incurred, including travel and subsistence, and goods and services purchased in connection with the Services, will be re-charged to you.
- 4.3 It is RSM's general policy to agree a specific billing schedule with each Client Party but in the absence of such agreement, the following shall apply:
  - a) in relation to most nonrecurring Services we will bill 50% of the expected fee on commencement of the Service, 25% of the expected fee when the field work is completed and bill the balance of our fee (including disbursements and expenses) on completion of the Services, and

- b) where continuous
  Services are provided
  (e.g. advisory services,
  preparation of VAT returns
  and accountancy work),
  fees will be rendered
  monthly or quarterly
  depending upon the
  extent of the Services
  undertaken. Fees will
  normally be billed when
  the value of the Services
  performed since the last
  bill exceeds £1,000.
- 4.4 All fees and expenses will be subject to VAT (or exempt from VAT) in accordance with VAT regulations and guidance. Your liability to pay VAT on our fees and expenses does not necessarily entitle you to recover such VAT as input tax. Your entitlement to VAT recovery is subject to normal VAT rules and, in particular, that the Services are used or to be used for the purpose of any business carried on or to be carried on by you.
- 45 Invoices and applications for payment are due for settlement when issued. Time for payment of fees, disbursements and expenses shall be of the essence, and you agree to pay all sums due under the Engagement Letter on receipt of an application for payment (or invoice, if no application for payment has previously been issued). Where an application for payment is issued, a VAT invoice will be issued on receipt of payment.
- 4.6 We may charge interest on any outstanding balances at the rate prescribed from time to time in accordance with Section 6 of the Late Payment of Commercial Debts (Interest) Act 1998.
- 4.7 Fee estimates given by us are given in good faith but will not be contractually binding.

## 5 Limitation of liability

5.2

- 5.1 The following clauses limit RSM's liability to the Client Party by RSM in respect of any negligence, default, or breach of duty, or breach of trust, occurring in the course of the provision of Services pursuant to the Engagement Letter.
  - For the Purposes of this clause 5, 'Person' means any

corporate body, individual or other person, including:

- a) any director or employee of the Client Party,
- persons associated with the Client Party,
- c) persons providing or who have provided finance or services to the Client Party including other professionals, and
- d) any governmental or regulatory authority or body where such governmental or regulatory authority or body is in breach of duty, whether statutory or otherwise, and irrespective of whether such authority or body has, in respect of the relevant loss or damage, any statutory immunity from liability for damages, but excluding the Client Party itself and RSM.
- Where any Person, whether or not that Person is or could be made a party to or a witness in any relevant proceedings, is also liable to the Client Party for, or has otherwise caused or contributed to, all or part of the same loss or damage as RSM (a 'Responsible Person'), and/or where the Client Party itself has contributed to such loss or damage, RSM's liability shall be limited to such amount as is just and equitable having regard to the extent to which each of RSM, any such Responsible Person and the Client Party is liable for, or has otherwise caused or contributed to, such loss or damage. Any limitation exclusion or restriction (however arising) on the liability of any Responsible Person and any other matter (whenever arising), including inability to pay or insolvency, affecting the possibility of recovering compensation from any Responsible Person shall be ignored in determining whether and to what extent that Responsible Person is liable to the Client Party for, or has caused or contributed to, such loss or damage. Neither RSM nor the Client Party shall unreasonably resist the joinder to the proceedings or the calling as a witness in the

- proceedings of any Responsible Person
- 5.4 If the effect of clause 5.3 would be to limit RSM's liability to less than such amount as is fair and reasonable, as determined in accordance with that clause, this clause shall have effect as if it limited RSM's liability to such amount as is fair and reasonable, as so determined.
- 5.5 RSM's aggregate liability in respect of all claims by you shall be limited to the amount specified in the Engagement Letter or, if no amount is specified there, to £1million.
- 5.6 It is further agreed that, in order to give effect to the agreed principle that we shall not be liable more than once in respect of any loss or damage a Client Party may suffer arising out of the Services the subject of the Engagement Letter, any amount otherwise payable to a Client Party by reason of a claim under the Engagement Letter in respect of any such loss or damage shall be reduced by any amount paid to that Client Party in respect of the same loss or damage by reason of a claim under any other letter of engagement entered into between ourselves (or other RSM Entities) and that Client Party or otherwise.
- For the avoidance of doubt where there is more than one Client Party, RSM's aggregate liability to all Client parties shall not exceed the limit applicable pursuant to clause 5.5 above In that event the limit of liability specified above will have to be allocated between the Client Parties. It is acknowledged that such allocation will be entirely a matter for the Client Parties, provided always that if (for whatever reason) no such allocation is agreed, no Client Party shall dispute the validity, enforceability or operation of the limit of liability on the ground that no such allocation was agreed.
- 5.8 Claims will be made only against RSM and not against any other RSM Parties save to the extent that such other RSM Parties perform services pursuant to their own separate letters of engagement. You agree that any other RSM Parties may rely upon the

- Contract (Rights of Third Parties) Act 1999 should they need to enforce this clause.
- Any claim must be formally commenced within two years after the party bringing the claim becomes aware (or ought reasonably to have become aware) of the facts which give rise to the action and in any event no later than four years after the cause of action arises. This provision expressly overrides any statutory provision that would otherwise apply.
- 5.10 Except as expressly provided herein, no person may enforce the Engagement Letter by virtue of the Contracts (Rights of Third Parties) Act 1999.
- 5.11 These provisions do not apply in relation to:
  - a) Death or personal injury;
  - Loss and damage arising from fraud on our part;
  - Any other situations in which the limitation of our liability is prohibited by law.
- 5.12 Details of our professional indemnity insurance, as required by the provisions of the Provision of Services Regulations 2009, can be viewed at https://www.rsmuk.com/legalstatements.

#### 6 Working for other parties

1 For the avoidance of doubt, the provision of the Services to you shall not prevent or restrict the manner in which RSM carries on its profession or business in relation to its other clients. In particular, you acknowledge that RSM reserves the right to act at any time for other clients who may be competitors of yours or in respect of whom issues of commercial conflict may arise.

#### Conflicts of interest

7.1 In accordance with relevant ethical requirements we have put in place procedures to identify situations where a specific legal or ethical conflict of interest may arise. However, we cannot be certain that our procedures will identify all such situations, in part because it is difficult for us to anticipate what

- you would regard as a conflict. If you are, or become, aware of any potential conflict affecting our provision of the Services, you will notify us immediately.
- 7.2 For the purpose of the procedures referred to in clause 7.1, you consent to our disclosure to other members of the RSM Network that we provide services to you and the nature of these services.
- Where a specific legal or ethical 73 conflict, actual or potential, is identified, and we believe that implementing appropriate procedures can properly safeguard your interests, we will promptly notify you (subject only to clause 9 and to any obligations we may owe to third parties), explain the safeguards to be implemented and obtain your consent to their implementation. There may however, be circumstances where we consider that your position cannot be safeguarded and in such circumstances, the Services may be terminated. In order to maintain confidentiality, we may not be able to explain all the reasons for terminating the Services

#### Publicity

8

.1 Once the subject matter of the Engagement Letter is in the public domain (or you and we otherwise agree in writing) we may (at our own expense) place advertisements or make reference on our website or distribute other marketing materials (in each case using your name and (in the case of a corporate or other business client) logo) describing our role.

#### Confidentiality

- 1.1 Subject to clause 10 below:
  - You and we shall each (and will each use our respective reasonable endeavours to procure that our respective partners, directors, officers, agents, contractors and employees shall) at all times keep confidential and shall not use, except in connection with the performance of the Services or as expressly stated in the Engagement Letter or subsequently

- agreed to in writing or as otherwise required or permitted or permissible in law or by regulation, any Deliverables and/or Information obtained or given in connection with the Services ( 'Permitted Disclosure'). Each party to the Engagement Letter is solely responsible for ensuring the proper presentation of any Permitted Disclosure;
- b) Both you and we each accept no liability to any other party who is shown or gains access to any Information or Deliverables
- On the basis set out in clause 1.4, both you and we each agree to accept responsibility for and hold the other and the other's agents harmless from any claim (including any claim for negligence) arising out of any un-authorised disclosure, by either you or us or others respectively engaged by either you or us, of Deliverables or Information. This undertaking will extend to the cost of defending any such claim; and
- You will keep confidential any methodologies and technology used by us to carry out the Services. RSM retains copyright in all such material provided to you.

## 10 Permitted disclosures

10.1 In the event that either of us is required by law or by the rules of any competent governmental or regulatory body to disclose any Deliverables and/or Information, that party shall to the extent permitted by law promptly notify the other party of that requirement and shall give the latter a reasonable opportunity to make representations in relation to the proposed disclosure before such disclosure is made. In any event the disclosing party shall disclose only the minimum amount of such Deliverables and/or Information consistent with satisfying its obligation to disclose

- 10.2 In complying with any such disclosure obligations, we may incur costs in ensuring that any disclosures are limited to the minimum amount consistent with satisfying our obligations. You agree to reimburse any such reasonable costs except to the extent that such disclosure obligations are in the context of any proceedings or regulatory process involving any substantive claim or proceeding against us.
- 10.3 Clause 9 shall not prohibit the disclosure of any Information or Deliverables where it is reasonably necessary for the purposes of:
  - notifying insurers concerning any actual or potential dispute relating to the Services, or
  - b) resolving any actual or potential dispute relating to the Services or in connection with any defence advanced in any proceedings in any jurisdiction. Each Party shall take all possible steps to preserve confidentiality of Information and/or Deliverables in all fillings with the applicable court
- 10.4 Clause 9 shall also not prohibit the disclosure of any information which is within the public domain, or which is obtained from a third party who is entitled to disclose it publicly, and shall cease to apply to any information which subsequently enters the public domain except as a result of a disclosure which is contrary to these provisions.

#### 11 Continuation

11.1 The provisions of clauses 9 and 10 shall continue in full force and effect notwithstanding the termination of the engagement the subject of the Engagement Letter or the completion of the Services.

#### 12 Information relevant to the Services

12.1 When reasonably requested by us, you accept responsibility for making available to us and/or granting full access to, as and when required, all relevant Information. You will ensure that all such Information is complete and accurate.

- 2.2 You agree to grant us a royalty free licence to use your intellectual property rights to the extent necessary for the provision of the Services. Such licence shall expire automatically upon termination of the engagement the subject of the Engagement Letter provided that such termination shall not require us to return any Information provided to us in connection with the provision of the Services.
- 12.3 To the extent that such Information is not in your control or possession, you will use your best endeavours to procure that the required Information is made available to us.
- 12.4 You undertake to notify us promptly if anything occurs within a reasonable time after Information has been provided to us to render any such Information untrue, unfair or misleading. You also undertake (if required by us) to take all reasonable steps to correct any document, announcement or communication issued, containing, referring to or based upon any such Information.
- You acknowledge that Information made available by you or otherwise known to individuals within RSM or other RSM Entities who are not engaged in the provision of the Services shall not be deemed to have been made available to the individuals within RSM engaged in the provision of the Services. Further, we shall not be obliged to disclose to you, nor to take into account in providing the Services, any information if to do so might breach obligations owed to other persons or the rules of any governmental or regulatory authorities

#### 13 Other professional advisers

- 3.1 In relation to the provision of the Services, it may be necessary or desirable to instruct other professional advisers. You shall be responsible for the appointment of such other professional advisers and for their fees and expenses.
- 13.2 We shall have no liability for the non-delivery or nonperformance of such other professional advisers (other

- than our express agents).
  Additionally, we shall not be liable for the acts, omissions, misrepresentation or error of any third-party supplier introduced or recommended by us.
- 13.3 Where other professional advisers are instructed, we will place reliance on their opinion and we will refer to their opinion and our reliance upon it in any Deliverables as appropriate.

## 14 Nature of the Services

- 14.1 Except as specifically agreed and referred to in the Engagement Letter, the Services will not be an audit or assurance engagement as conducted in accordance with International Standards on Auditing (UK) issued by the Auditing Practices Board or any other assurance standards. We will not seek to verify the accuracy of the Information provided to us. In many cases we will accept the explanations and assurances we receive from the directors, officers and employees of the entity the subject of this engagement.
- 14.2 We will, however, satisfy ourselves that such Information is consistent with other information provided to us. We may also request written confirmation from relevant persons that such Information provided to us is complete and accurate and that any Deliverables are factually accurate and contain all matters of significance within the scope of the Engagement Letter.
- 14.3 Our review may not discover matters that would, under normal circumstances, come to our attention if we were to undertake an audit or assurance engagement. It may not cover matters that are not apparent to us from reasonable enquiry.
- 14.4 In relation to information technology systems, we make no representation or warranty that our advice is complete or that any action you take or do not take as a consequence of our advice will result in the functionality and/or performance of your information technology systems.

#### 15 Discovery of fraud

- 5.1 We will not be responsible for detecting fraud or misrepresentation (whether by the Client Party, its management, employees or third parties). We will, subject to our legal obligations, without accepting any liability for doing so, inform the Client Party if we become aware of fraud.
- 15.2 We will not be responsible for the consequences of any deficiency in Information provided in the course of our provision of Services.

#### 16 Recommendations

16.1 Neither the Services nor our findings shall in any way constitute recommendations regarding the completion of any proposed transaction. You are responsible for determining whether the scope of the Services is sufficient for your purposes in the context of your wider investigations and due diligence. If we were to perform additional procedures or extend the scope of the Services into other areas, we might identify other matters that may affect the Services.

#### 17 Compliance

- 17.1 The Client Party and RSM shall each ensure that it has and/or shall obtain all authorisations, consents and approvals of any governmental or other regulatory body or authority as are necessary to enable it to enter into the Engagement Letter and carry on the activities in respect of which the Services are provided and/or provide the Services (as applicable).
- 17.2 Each Party will ensure that it, together with all its directors, officers, employees and agents, will at all times comply with all applicable legal and regulatory provisions of which it is, or should reasonably be, aware in any jurisdiction including the United Kingdom, to the extent applicable.

#### 18 Communication and meetings

18.1 We shall keep you informed on the progress of the Services and give warning of all matters that we consider to be of significance to you and, where appropriate, your advisers as

- they arise during the course of the provision of the Services.
- Draft Deliverables may represent work in progress and provide views in respect of which we have not received full and accurate Information. Accordingly, draft Deliverables will not constitute RSM's definitive opinions and conclusions and we will not be liable to the Client Party (or anyone else) whether in contract, tort or otherwise for the content or use of any draft Deliverables. We will not be liable to the Client Party (or anyone else) whether in contract, tort or otherwise for oral advice provided during the provision of the Services except we shall be liable to the Client Party where the provision of any aspect of the Services exclusively comprises oral advice (as set out in the Engagement Letter)
- 18.3 We shall be under no obligation to update any Deliverables issued in final form.

#### 19 Electronic communication

- 19.1 We each agree to communicate electronically over the internet, including email communications.
- 19.2 We shall each be responsible for protecting our own systems and interests and neither of us shall be responsible to the other on any basis (contract, tort or otherwise) for any loss, damage or omission in anyway arising from the use of electronic data (including email) as a form of communication.
- 19.3 The parties accept you may provide (or procure provision of) Virtual Storage Facilities for RSM Entities' use relating to Services.
- 19.4 For such Virtual Storage Facilities you undertake to (a) use (or procure the use of) information and data protection procedures to prevent unauthorised disclosure or use of confidential information and personal data, and (b) comply with all applicable laws on confidentiality and data protection.
- 19.5 We may download or copy information relating to Services from such Virtual Storage Facilities and then hold such

- information in accordance with these Terms and Conditions of Business.
- 19.6 You agree to accept responsibility for and hold us harmless from any claim, including the cost of defending any claim, arising out of or in connection with an RSM Entity's or RSM Entities' use of such Virtual Storage Facilities that are provided (or procured) by your

#### 20 Ownership of Papers and Intellectual Property

- 20.1 All correspondence and papers in our possession or control and generated for our internal purposes (including our working papers) or addressed to us relating to the Services or the subject matter of the Services shall be our sole property.
- In respect of clause 20.1, upon full payment of all amounts due to us in connection with the Engagement Letter, all right, title and interest in the Deliverables set out in the Engagement Letter will become your sole and exclusive property for the sole purpose of providing such right, title and interest to you, except as set forth below. We will retain sole and exclusive ownership of all right, title and interest in our work papers, proprietary intellectual property, processes, methodologies, techniques, ideas, concepts, trade secrets know-how and software existing prior to the signing of the Engagement Letter or which is created outside of the provision of the Services. To the extent the Deliverables contain our proprietary intellectual property, we grant you a non-exclusive, nonassignable, royalty-free licence to use it in connection with the Deliverables and the subject of the Engagement Letter and for no other or further use. To the extent the Deliverables contain the proprietary intellectual property of a third party, you agree to comply with such third party's terms of licence as the same are communicated or made available by us to you.

#### 21 Document Retention Policy

21.1 Without prejudice to Clauses 29, 30 and 31, files and other papers, electronic or otherwise, relating to your matters, including certain documents that may legally belong to you, will be stored for such time as we judge reasonable or for such time as we are required by law so to do, but in any event, typically, for a period of not less than six years, after which time we may delete or destroy them without further reference to you.

#### 22 Timetable

22.1 We will discuss with you the nature and timing of the programme of work we intend to carry out and the most effective way of implementing it. Deadlines for completing the various aspects of the Services will be agreed following such consultation. The timetable for completion of the Services assumes that the Information we require to carry out the Services will be made available in good order on a timely basis.

#### 23 Custody

- 23.1 Where we provide custody of title documents belonging to you, we:
  - will charge for such services separately from our other fees, on the basis stated in the section titled Fees;
  - will provide you with annual statements or records of title documents; and
  - c) may appoint subcustodians to undertake the arrangements for the custody of your title documents

#### 24 Client Money

- 24.1 Client money bank accounts are maintained by RSM UK Group LLP, on behalf of RSM, in compliance with the Client Money Rules of the Institute of Chartered Accountants in England and Wales.
- 24.2 Interest will be paid on client money held on your behalf at a rate no less than that applicable to small deposits subject to the minimum period of notice of withdrawal.

#### 25 Force Majeure

25.1 Neither of us will be liable to the other for any delay or failure to fulfil obligations caused by circumstances outside our reasonable control.

#### 26 Assignment

- 26.1 Neither of us may transfer or assign any rights or obligations under the Engagement Letter without the prior written consent of the other party.
- Notwithstanding clause 26.1, we may use sub-contractors where we consider it appropriate to do so in connection with the provision of the Services and you hereby authorise us to release such information as we consider necessary to enable any such sub-contractors to perform the tasks requested of them. For the avoidance of doubt, no use of sub-contractors will affect our duties or obligations to you under the Engagement Letter in any way and clause 13 shall not apply in relation to any such use of sub-contractors.

#### 27 Quality assurance

- 27.1 As a matter of routine, we carry out quality assurance procedures on the work performed by our staff and partners. If at any time you wish to discuss with us how our services to you could be improved, or if you are dissatisfied with the Services you are receiving, please let us know. Contact details of the person responsible for handling complaints can be viewed at https://www.rsmuk.com/legal-statements.
- 27.2 We undertake to look carefully and promptly into any complaint and to do all we can to explain the position to you. If we have given you a less than satisfactory service we would like the opportunity to do what we can to put it right. Ultimately, you may take up matters with our regulators, details of which can be viewed at https://www.rsmuk.com/legal-statements

#### Provision of services by RSM Parties

28.1 RSM is an independent member of the RSM Network. RSM is the trading name used by members of the RSM Network. Each member of the RSM Network is an independent accounting and consulting firm, each of which practises in its own right. The

- RSM Network is not itself a separate legal entity of any description in any jurisdiction.
- 28.2 The RSM Network is administered by RSM International Limited, a company registered in England and Wales (company number 04040598) whose registered office is at 50 Cannon Street, 2nd Floor, London, EC4N 6JJ. The brand and trademark RSM and other intellectual property rights used by RSM Network members are owned by RSM International Association, an association governed by article 60 et seq of the Civil Code of Switzerland, whose seat is in Zug.
- 28.3 Without prejudice to clause 28.2, unless specifically agreed, no RSM Party is the agent or partner of RSM and no RSM Party has authority to enter into any legal obligations on behalf of RSM. If we introduce you to an RSM Party we do not accept any liability for work that they carry out on your behalf and you must make your own contractual arrangements with them directly.
- 28.4 If you instruct an RSM Party to provide services to you, the RSM Party and not RSM is responsible for any such advice given or services provided. Any such services will be separate from those provided by RSM and will be subject to a separate engagement letter between the RSM Party and yourself. You agree that fees and commissions receivable by the RSM Party in relation to services provided to you will not reduce or otherwise affect the fees payable by you in respect of the Services provided by RSM under the Engagement Letter, or any other then-current engagement letter.

#### 29 Data Protection

29.1 For the purposes of these Terms and Conditions of Business, the terms 'controller' 'data subjects', 'personal data', 'processor' and 'process' shall have the meaning given to them by the Data Protection Directive 95/46/EC, the European Union Regulation 2016/679 or any relevant successor legislation in the United Kingdom, as applicable.

- 29.2 This clause 29 applies to all personal data processed by the parties in connection with the Services and any personal data derived from it ('Relevant Personal Data').
- 29.3 Unless stated otherwise in the Engagement Letter or elsewhere agreed in writing by the parties, each party acts as a controller concerning the Services
- Each party shall comply with all data protection legislation applicable to it ('Data Protection Law') when processing Relevant Personal Data. Each party undertakes not knowingly to cause the other to breach Data Protection Law. In particular, the Client Party shall ensure (i) where RSM is acting as a controller in providing the Services, that any individual, whose personal data the Client Party (or another entity on behalf of the Client Party) is to disclose to us, is provided with the RSM Entities' Privacy Policy; and (ii) in any event that any disclosure of Relevant Personal Data to us complies with Data Protection Law
- 29.5 Where RSM is acting as a controller in providing the Services, the Client Party acknowledges and agrees that for the purposes of providing the Services we may disclose Relevant Personal Data received from the Client Party to members of the RSM Network having imposed on such members appropriate data protection obligations.
- 29.6 In signing the Engagement Letter you also confirm that you are willing to receive unsolicited marketing material from RSM and any other RSM Entities. Please contact your engagement partner at RSM should you no longer wish to receive such materials.

## 30 RSM as processor

- 30.1 Where RSM acts as a processor in providing the Services, it will process personal data on behalf of the Client Party ('Client Personal Data') and the Client Party will be the controller. In such circumstances RSM shall:
  - a) only process Client
     Personal Data on behalf
     of the Client Party in

- accordance with the Engagement Letter and other written instructions received from the Client Party from time to time, unless otherwise required by applicable Data Protection Law. RSM shall notify the Client Party if it believes that the instructions infringe Data Protection Law unless informing the Client Party is prohibited by law on important grounds of public interest.
- keep Client Personal Data confidential and implement appropriate technical and organisational security measures (including imposing confidentiality obligations on all staff working with Client Personal Data) to ensure a level of security appropriate to the risks that are presented by the processing of Client Personal Data, in particular accidental loss and unlawful processing. In case of a data breach which we reasonably believe affects Client Personal Data, RSM shall notify the Client Party without undue delay after having become aware of
- (i) assist the Client Party in ensuring compliance with the European Union Regulation 2016/679; (ii) provide the Client Party with all information necessary to demonstrate compliance with Data Protection Law; and (iii) allow for and contribute to audits, including inspections and information requests conducted by the Client Party or an auditor mandated by the Client Party for which RSM will keep records of its processing activities performed on behalf of the Client Party.
- 30.2 The Client Party acknowledges and agrees that, where RSM is acting as a processor in providing the Services, we may retain members of the RSM Network and other third parties

as sub-processors (all together 'Sub-Processors') in connection with the provision of the Services having imposed on such Sub-Processors data protection obligations equivalent to those imposed on us under these Terms and Conditions of Business, to the extent required by Article 28(4) of the European Union Regulation 2016/679. RSM shall be liable to the Client Party for the performance of the Sub-Processors' obligations.

- 30.3 Subject to the requirements of applicable law and regulation, where RSM is acting as a processor in providing the Services RSM shall, at the Client Party's request, delete or return all Client Personal Data after termination of the Services.
- 30.4 RSM shall implement measures to assist the Client Party in complying with the rights of data subjects.
- 30.5 RSM may, at its discretion, charge to the Client Party any reasonable costs that any of the RSM Entities incurs in respect of discharging any of RSM's obligations under any of clauses 30.1(c)(iii), 30.3 and 30.4

## 31 International Data Transfers

To the extent that the processing of Relevant Personal Data under clause 29 or of Client Personal Data under clause 30 involves the transfer of such Relevant Personal Data or Client Personal Data to a territory that does not provide an adequate level of protection, the parties undertake to implement appropriate safeguards in accordance with Data Protection Law and to that effect the relevant standard data protection clauses adopted by the European Commission and valid from time to time are incorporated by reference and will be deemed to be binding on the parties.

#### 32 Money Laundering Regulations

32.1 The Client Party acknowledges that RSM is under an obligation to apply client identity due diligence measures under The Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (the 'ML Regulations'). The Client Party further acknowledges that personal data it has provided (or which it provides) to RSM Entities for the purposes of the ML Regulations will only be processed for the purposes of preventing money laundering or terrorist financing or as otherwise permitted under applicable law or for the purpose of the provision of the Services and will be retained in accordance with the requirements of the ML Regulations.

#### 33 Choice of law

UK legal jurisdictions allow 33.1 parties to choose the law applicable to a contract. The Engagement Letter will be subject to the law of the country in the UK in which your engagement partner resides, as identified in the Engagement Letter, unless we agree with you in writing that some other law will apply before the start date of the Engagement Letter The applicable Courts shall have exclusive jurisdiction in relation to any claim, dispute or difference concerning the Engagement Letter and any matter arising from it. Each party irrevocably waives any right it may have to object to an action being brought in those Courts, to claim that the action has been brought in an inconvenient forum, or to claim that those Courts do not have jurisdiction.

#### **ANNEXE 3:**

January 2019

PROPOSED COMMITMENT LETTER - MANUFACTURERS

## Letter of Commitment in support of the Unified Water Label Voluntary Agreement

- Insert Company Name: fully supports the European Bathroom Industry goal, for the European Commission to award a Voluntary Agreement to the taps and shower valve Industry. Insert Company Name: supports a voluntary agreement and offer their full commitment to ensure consumers understand the water use for all water using bathroom products.
- Insert Company Name has played a significant role in aiding the European Bathroom Industry on the unification journey in bringing 4 of the existing labelling schemes, having a presence in the European market, together under the 'Best of All' approach. Significant consideration and activity and have been undertaken within the technical and marketing Working Groups to ensure harmonisation has been achieved, embracing National nuances with a positive result of the launch of the Unified Water Label for all water using bathroom products.
- The letter from Hugo-Maria Schally, Head of Unit, DG Environment, at the end of 2018, outlining the departments conclusions following Stakeholder meetings and the review of the preparatory study for taps and showers, that they will support the start of negotiations on a voluntary agreement with Industry has been well received.
- *Insert Company Name* welcomes and fully supports the view of DG Environment to reduce water waste and provide a credible platform for consumers to identify efficient products.
- *Insert Company Name:* fully commits to registering all relevant product that falls within the scope of the Voluntary Agreement and supports the commitment that the Unified Water Label will represent 80% of units sold within the EU.
- Insert Company Name: fully commits to the Voluntary Agreement and will provide all relevant and necessary information to justify the 80% target via an Independent Inspector. Insert Company Name: will provide an authorised representative to attend Unified Water Label meetings.

Signature for Company by an authorised person