



European Energy Network

A voluntary network of European energy agencies

European population's perception of water efficiency labelling schemes



Consumer survey



Water scarcity and water security



Energy security and energy transition



REPowerEU Actions





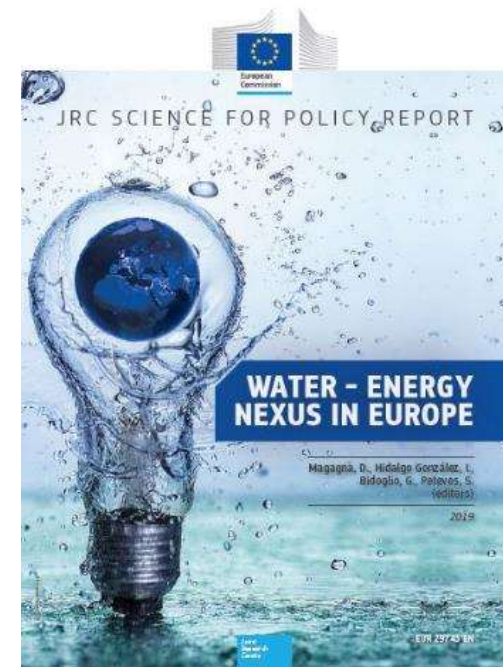
Water-Energy Nexus

The energy sector largely depends on water

Water availability is among the key constraints affecting the European energy sector, which currently requires 74 billion m³/year of freshwater, similar to the water needs of agriculture.

*The **decarbonisation** of the energy system could reduce its water needs by 38 % by 2050, yet **water availability** will play an essential role on the way to climate neutrality by 2050.*

Water is critical
for energy





Water-Energy Nexus

The water sector largely depends on energy

Energy is critical
for water

Water supply

6 a 18%

Energy demand of
global cities

4%

Energy global
consumption

10%

Cities CO₂
emissions

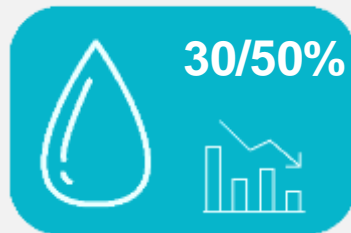




Need for water efficiency

Demand side management is key and has great savings potential

Buildings



Savings

Water
Energy



~50%
water invoices

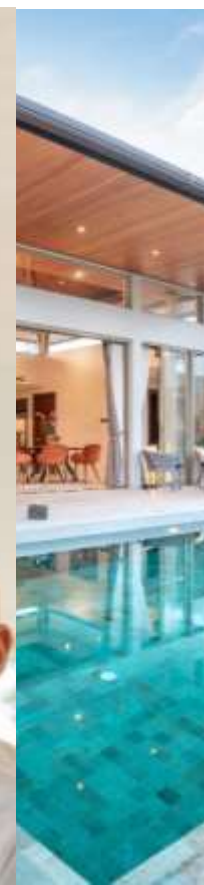
800 M€/year
Portuguese
households

Combined savings
for families
water + energy



[®] **AQUA+**

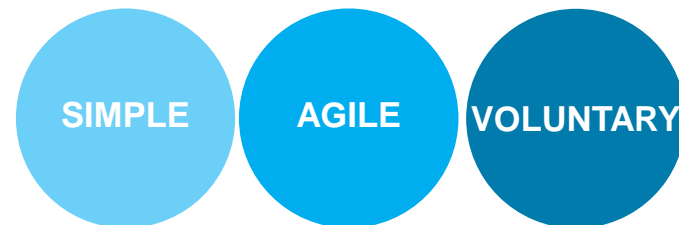
ÁGUA NA MEDIDA CERTA





Water rating for buildings, Portugal

- ▶ Building assessment and classification system (F to A+) based on water use infrastructure, devices and equipment
- ▶ Values the most efficient solutions and identifies opportunities for improvement, guiding and promoting best practices
- ▶ Prompt assessment in all types of buildings and their life phases
- ▶ Replicable by trained and qualified technicians





Water rating for buildings, Portugal



AQUA+
ÁGUA NA MEDIDA CERTA

WATER EFFICIENCY OF RESIDENTIAL BUILDINGS

Classification Nº 00000000 Valid until 31/12/2020
Emitted by ADENE - Agência para a Energia

BUILDING IDENTIFICATION

Building information

BUILDING CHARACTERIZATION

INNOVATIVE ASPECTS IN WATER USE
Separation and reuse of rainwater and wastewater

PARTIAL PERFORMANCE INDICATORS

	Water	Energy
Water sources and networks	●●●●●	●●●●●
Outdoor uses	●●●●●	●●●●●
Fixtures efficiency	●●●●●	●●●●●
Appliances	●●●●●	●●●●●
Domestic hot water	●●●●●	●●●●●

CONSUMPTION AND SAVING INDICATORS*

Estimated consumption (per day per m²)

Water in the property: 100 m³/m²/year
Average in the Municipality: 100 m³/m²/year

Water saving: 0 m³/m²/year

WATER EFFICIENCY CLASS
(Global rating index)

A+
A
B
C
D
E
F

A

WATER CLASS

www.aquamais.pt

AQUA+
ÁGUA NA MEDIDA CERTA

WATER EFFICIENCY OF RESIDENTIAL BUILDINGS

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DETAILED EVALUATION

	Water	Energy
WATER SOURCES AND NETWORKS	●●●●●	●●●●●
Alternative water sources	●	●
Water networks	●●●●●	●●●●●
OUTDOOR USES	●●●●●	●●●●●
Irrigation	●	●
Sail and cover	●	●
Pool	●	●
FIXTURES EFFICIENCY	●●●●●	●●●●●
Showers	●●●●●	●●●●●
Toilets	●●●●●	●●●●●
Bathrooms sinks	●●●●●	●●●●●
Bidet / Hygienic shower	●	●
Kitchen sink	●●●●●	●●●●●
APPLIANCES	●●●●●	●●●●●
Dishwashers	●●●●●	●●●●●
Washing machines	●●●●●	●●●●●
DOMESTIC HOT WATER	●●●●●	●●●●●
Hot water production and storage system	●●●●●	●●●●●
Hot water distribution network	●●●●●	●●●●●

MEASURES TO IMPROVE WATER EFFICIENCY (AND ASSOCIATED ENERGY)

Quick win

1. Installation of a water network measuring device connected to the home automation system, with valve closing when detecting a leak or anomalous consumption, and consumption monitoring to raise awareness.

2. Installation of an intelligent management system for the irrigation network with weather forecast, moisture and phytometric sensors, and integration with the programming.

With the implementation of the indicated improvement measures, the property can achieve the following water efficiency class:

QUICK WIN MEASURES **A** **ALL MEASURES** **A**

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Water rating for buildings, Portugal



5 AREAS



WATER SOURCES AND NETWORKS



OUTDOOR USES



FIXTURES EFFICIENCY



APPLIANCES



DOMESTIC HOT WATER



WATER SOURCES AND NETWORKS

Alternative water sources
Water networks



OUTDOOR USES

Irrigation
Soil and covers
Pool



FIXTURES EFFICIENCY

Showers
Toilets
Bathroom sinks
Bidet/ Hygienic shower
Kitchen sink



APPLIANCES

Dishwasher
Washing machine



DOMESTIC HOT WATER

Hot water production and storage system
Hot water distribution network

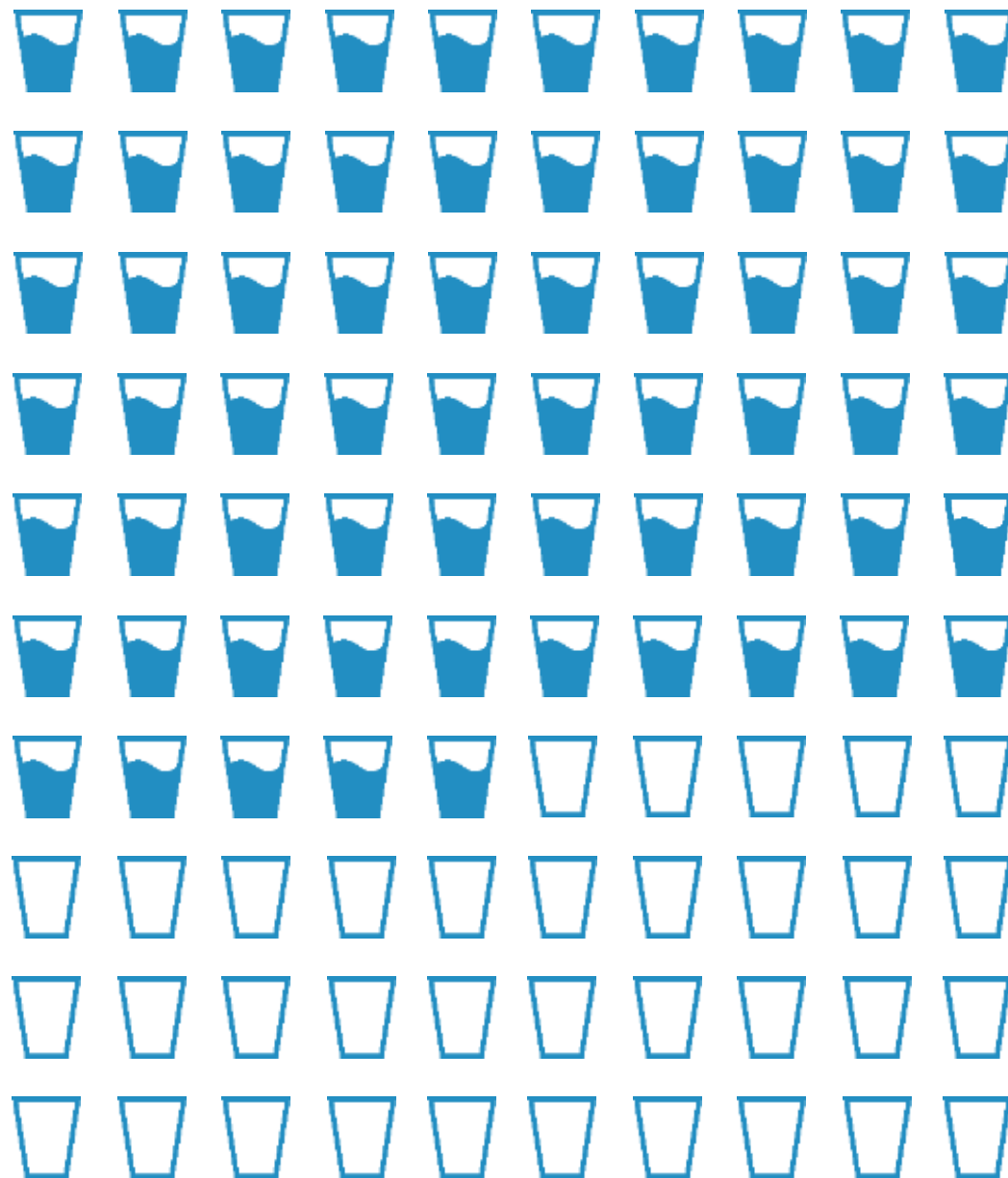
14 THEMES



53 PARAMETERS
(3 A 6 PER AREA)



Agência para a Energia



Estimated Water Savings for Hotel Buildings in Portugal
(indoor uses):

4 billion liters per year

Equivalent to the **drinking water needs**
of **65%** of the **Portuguese**
population for a **year.**



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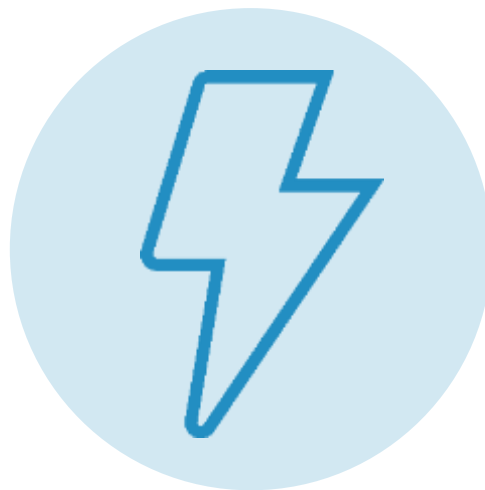


Estimated Energy and CO₂ Savings for Hotel Buildings in Portugal

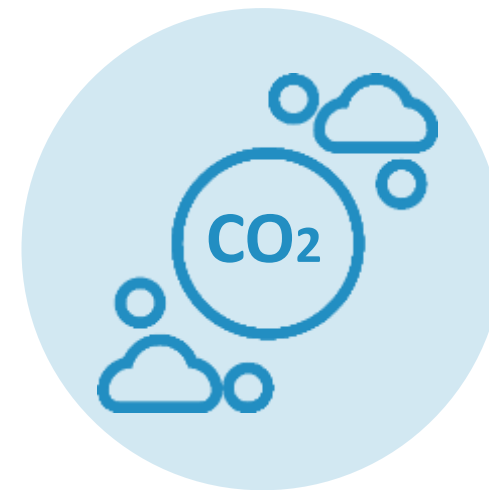
(through indoor water efficiency)



60%
Hot Water



20 GWh/year
Energy Savings



3k ton
Less CO₂ emissions



Schemes in US and Australia for buildings



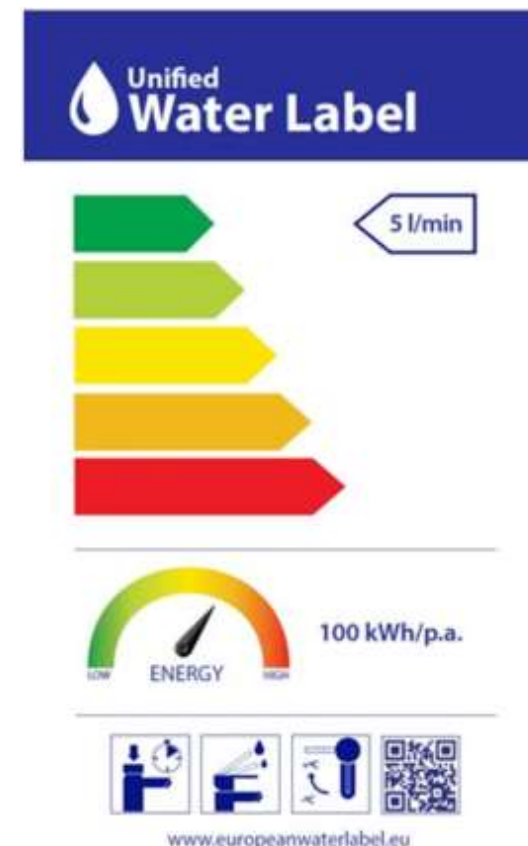
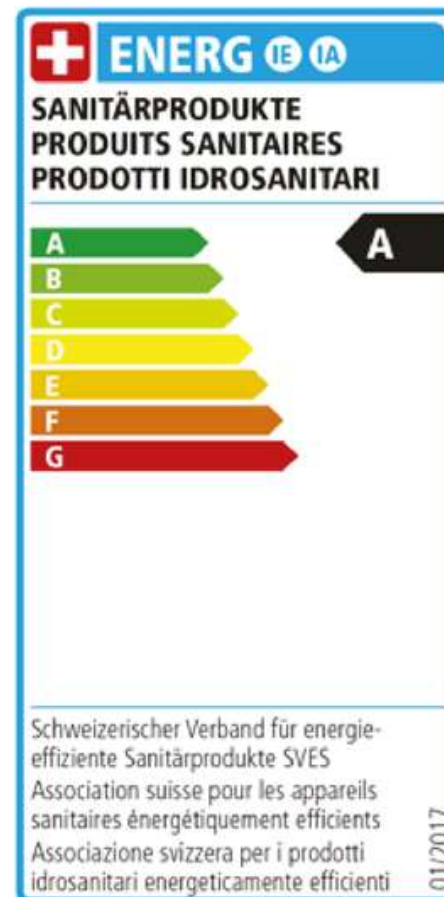
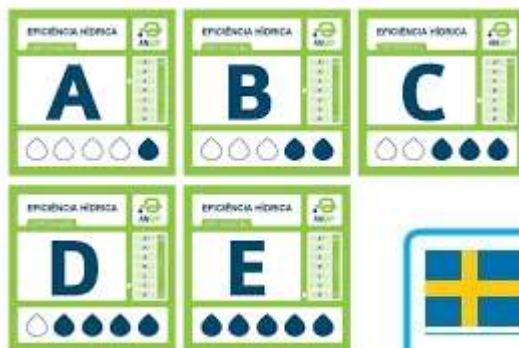


Schemes in US and Australia for water use products



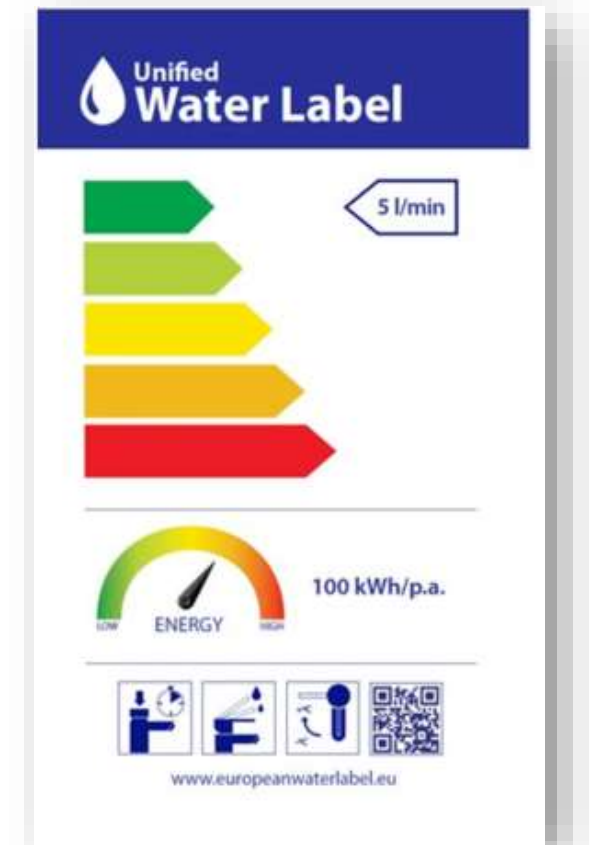
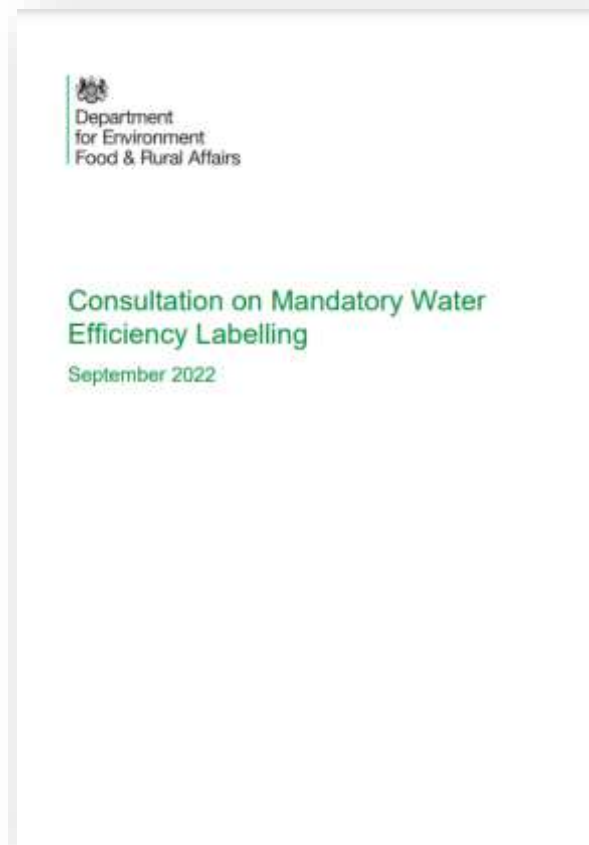
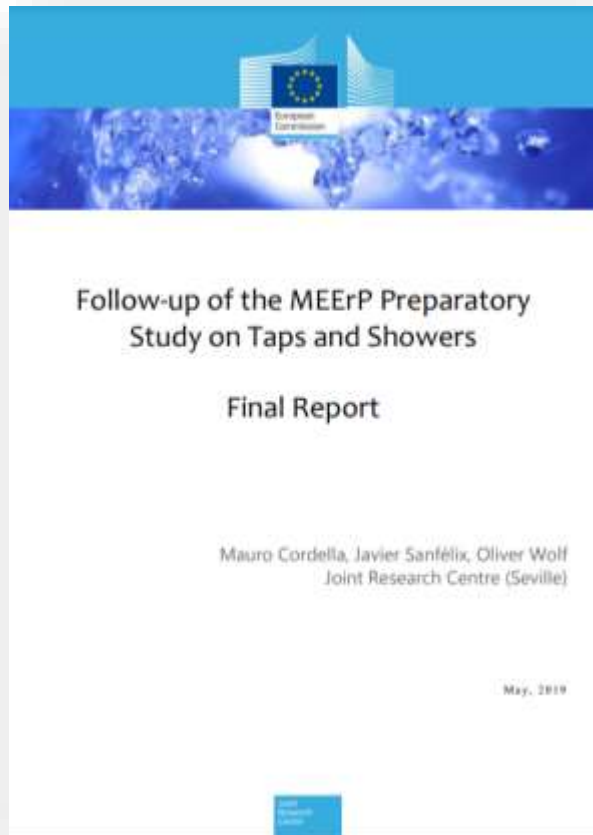


Schemes in Europe for water use products





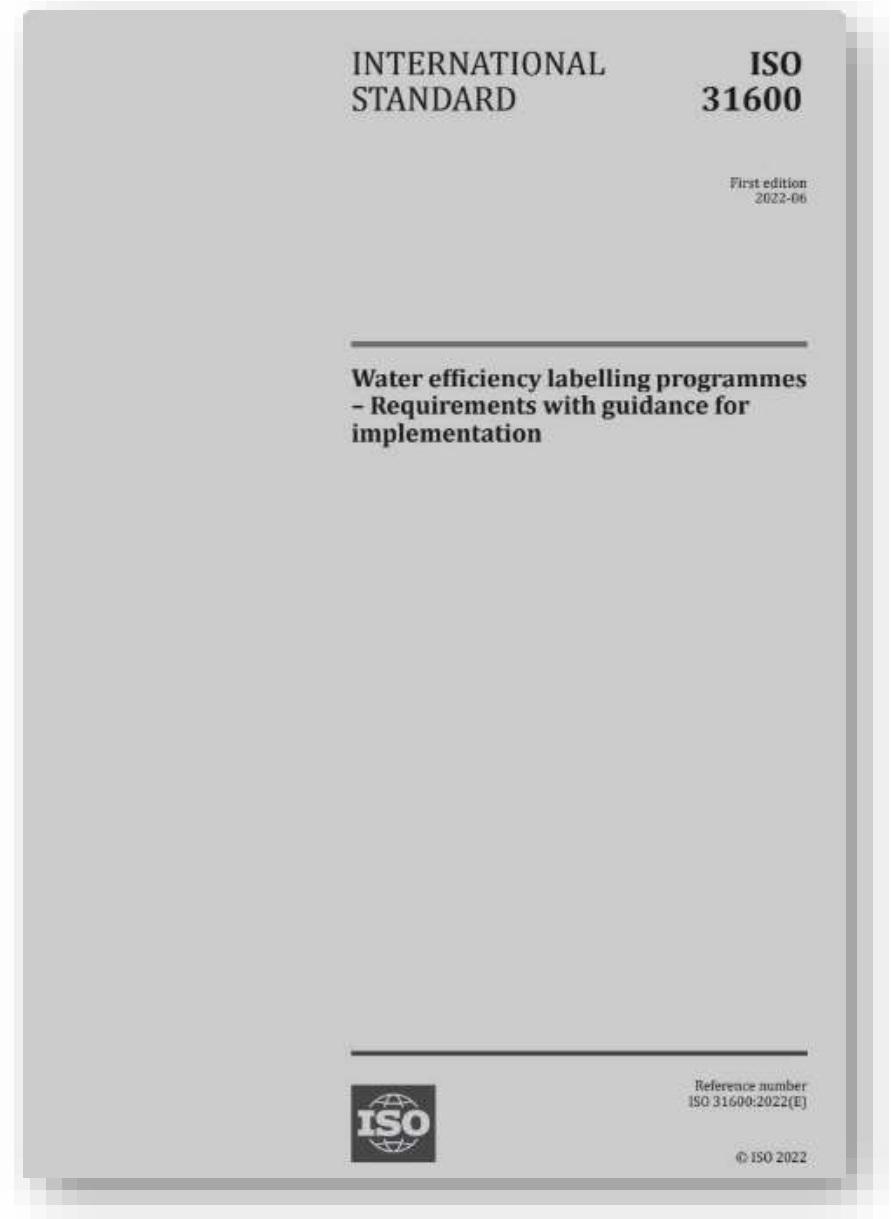
Efforts to have a single label... EC, UK, industry





ISO 31600:2022

Standardization on Water efficiency
labelling programmes





Consumer survey

Objectives

Understand consumers' needs, motivations and willingness to choose **labeled water use products, fixtures and equipment**, towards water and energy savings.

Motivation

Provide **input to the discussion within the European Commission and industry stakeholders** about the mandatory option through the EU energy label and the voluntary option through the agreement between industry and EC.

Relevance

Potential contribution to the **new rules for EU construction products** announced in March 2022

Framework

Implementation of water saving fixtures, alone, can produce up to **50% water savings in buildings, with energy and CO₂ emissions reduction** by end users and urban water systems. **Water and/or energy labelling** may be tools to help consumers on efficient choices.

Preliminary results





???

| Where are you from?





Consumer survey

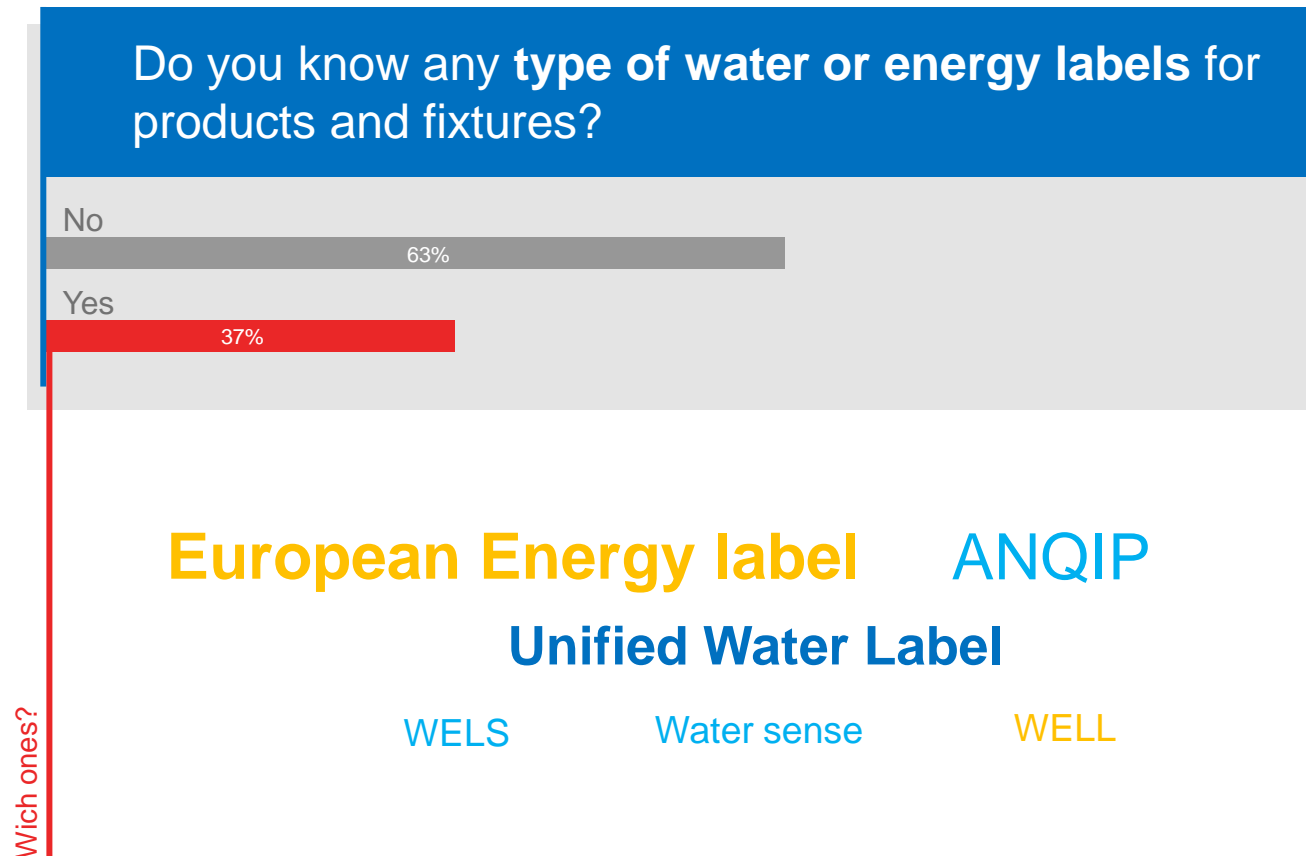


Answers from **21** countries

Available in **15** languages



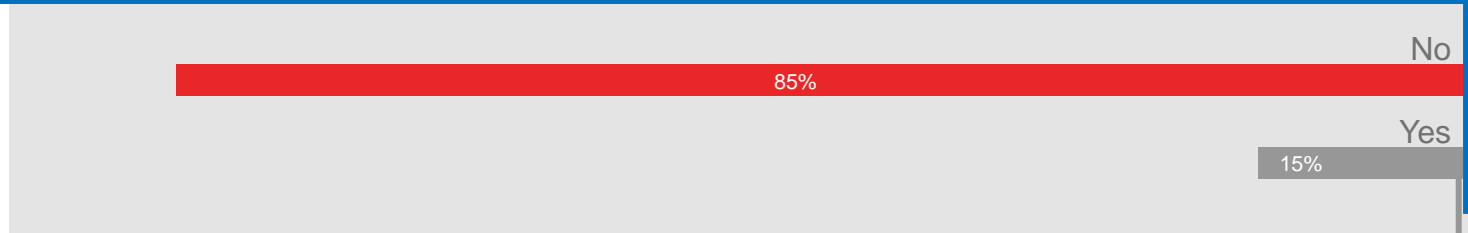
Consumer survey: Preliminary results





Consumer survey: Preliminary results

Are you aware of any **financial support** (a grant, subsidy, etc) to buy efficient products/fixtures?



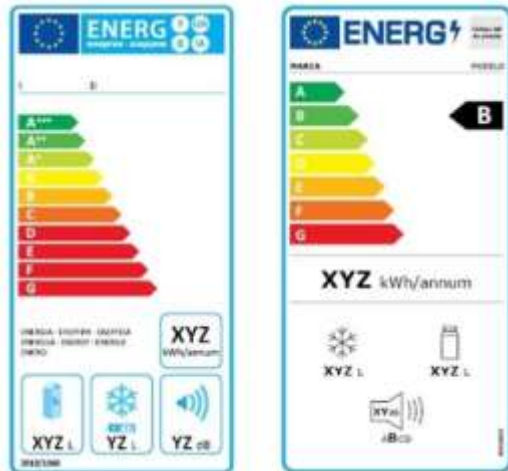
In wich countries?



Consumer survey: Preliminary results

How familiar are consumers with efficiency labels?

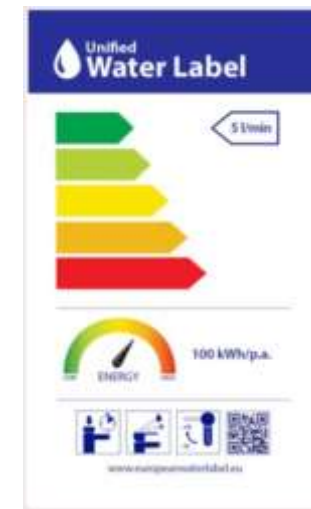
1 2 3 4 5



4,3



2,8

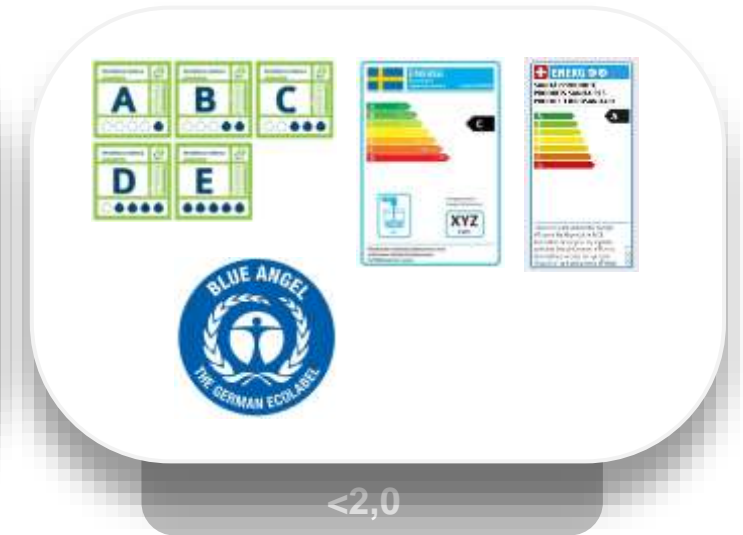
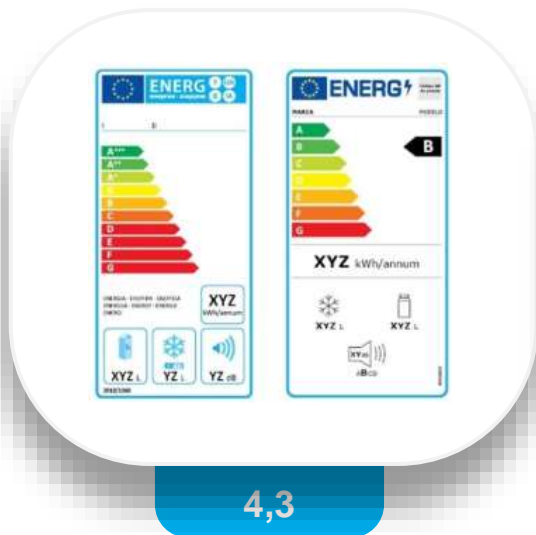


2,0



Consumer survey: Preliminary results

How familiar are consumers with efficiency labels?





Do you choose labeled products/fixtures when buying new ones?



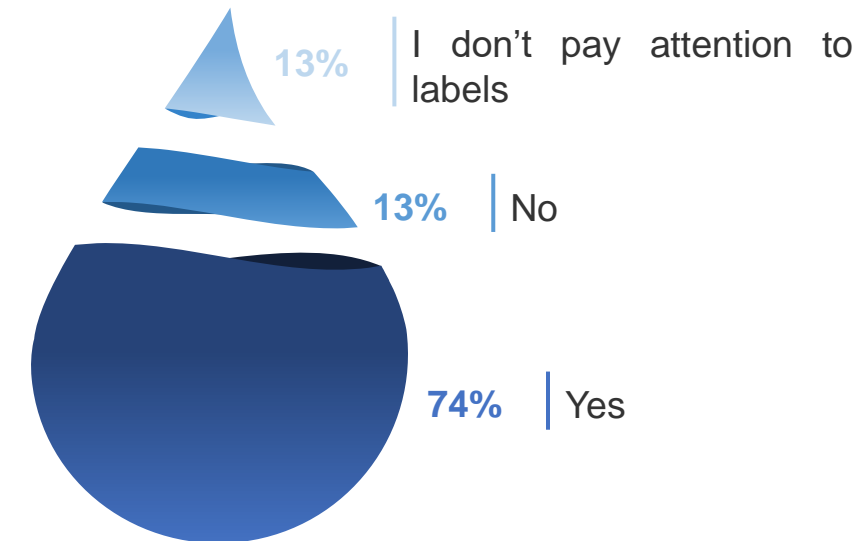
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Consumer survey: Preliminary results

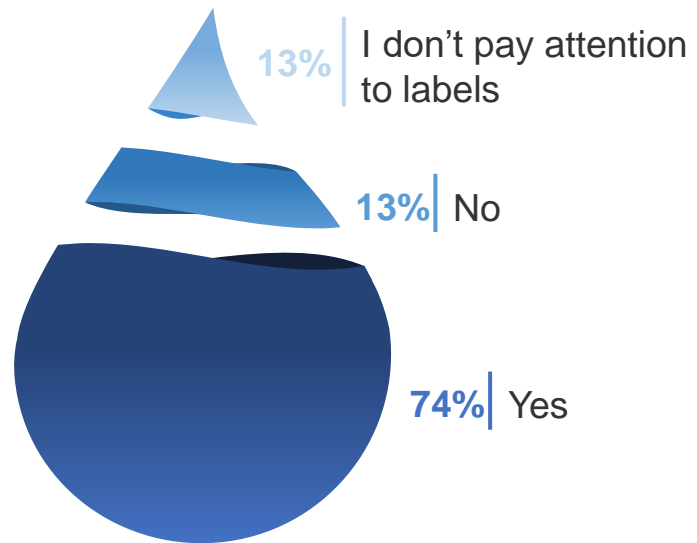


Do you choose labeled products/fixtures (taps, showers, etc.) when buying new ones?





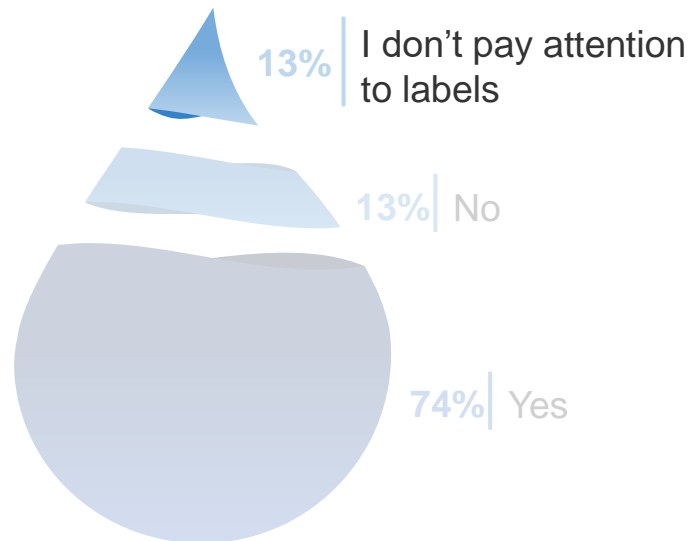
Consumer survey: Preliminary results



Why?



Consumer survey: Preliminary results



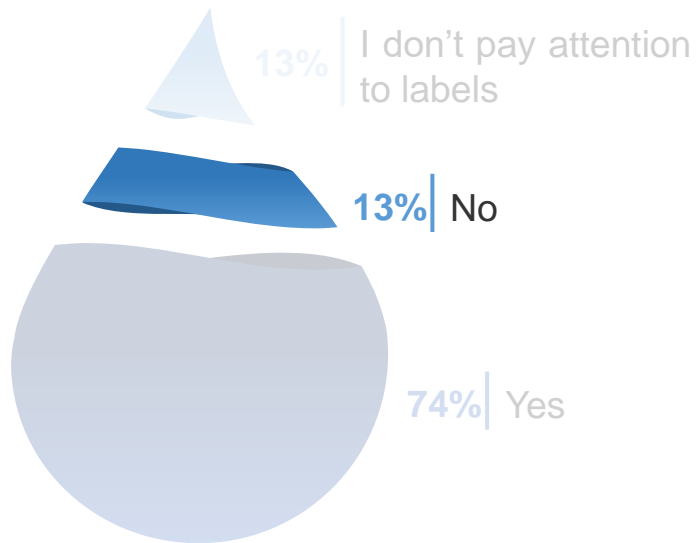
The main reasons to those who don't choose labeled products are:

“I don't know any efficiency labels”

“I can't find labeled products/fixtures on the market”



Consumer survey: Preliminary results

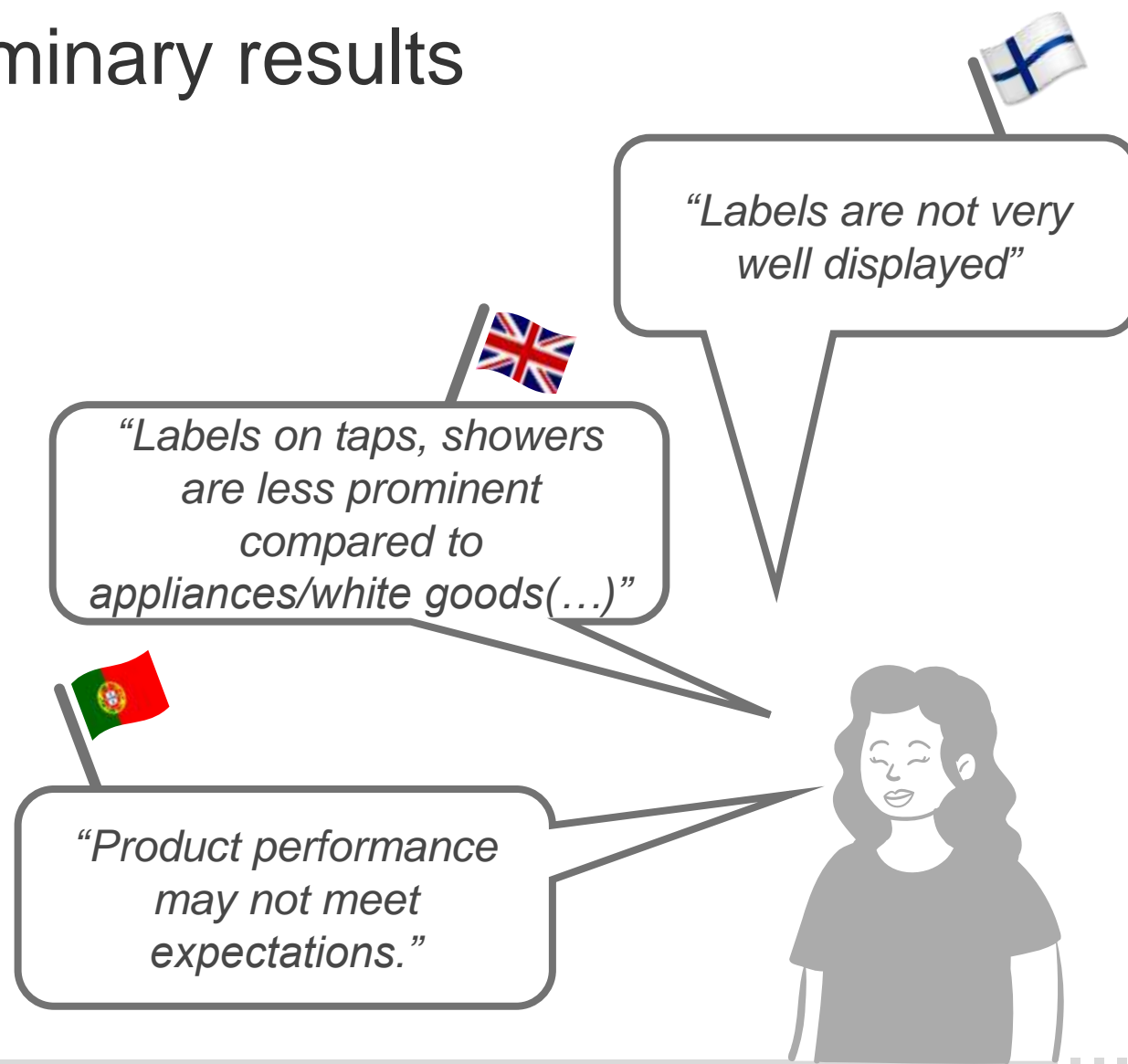
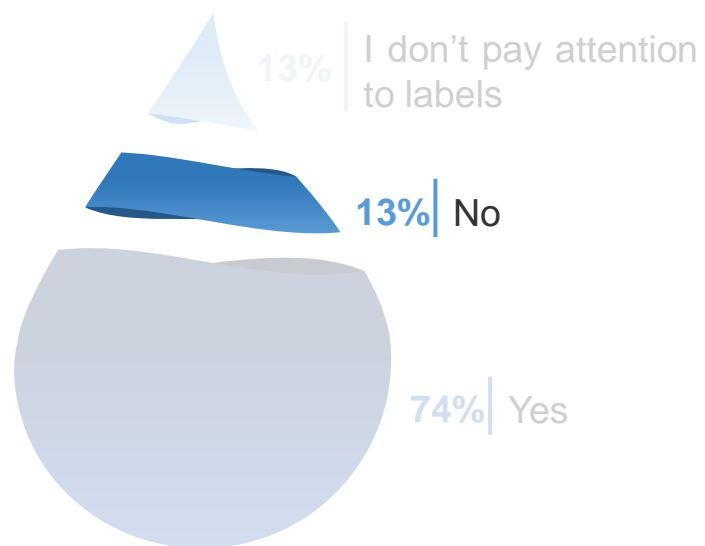


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"I can't find labeled products/fixtures on the market"

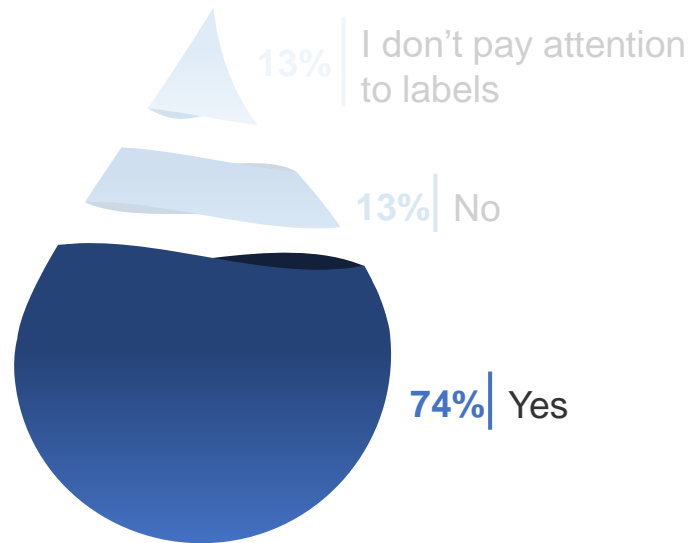


Consumer survey: Preliminary results





Consumer survey: Preliminary results



Which labels do you pay attention to when choosing a new product/fixture?



Consumer survey: Preliminary results

Which labels do you pay attention to when choosing a new product/fixture?





Consumer survey: Preliminary results

Which labels do you pay attention to when choosing a new product/fixture?

45% Water + Energy





Consumer survey: Preliminary results

Which labels do you pay attention to when choosing a new product/fixture?

45% Water + Energy

40% Energy





Consumer survey: Preliminary results

Which labels do you pay attention to when choosing a new product/fixture?

45% Water + Energy

40% Energy

9% Water





Consumer survey: Preliminary results

Which labels do you pay attention to when choosing a new product/fixture?

45% Water + Energy

40% Energy

9% Water

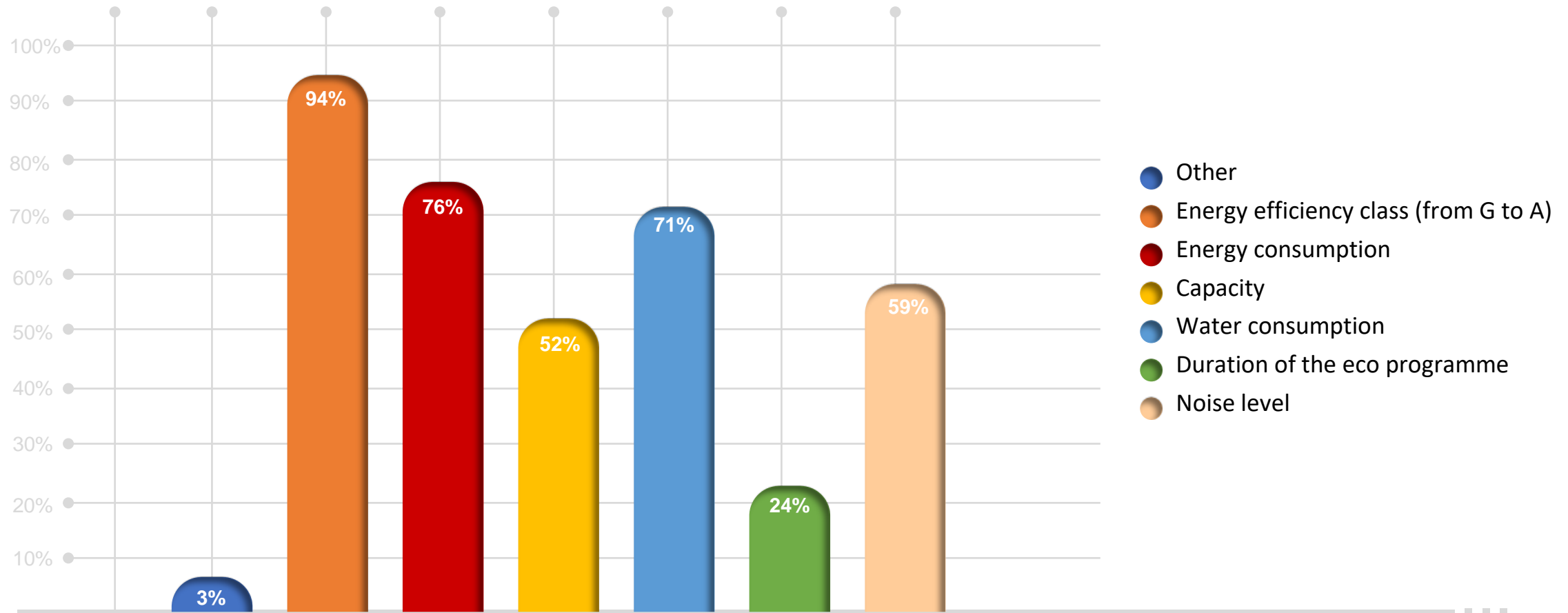
6% Others





Consumer survey: Preliminary results

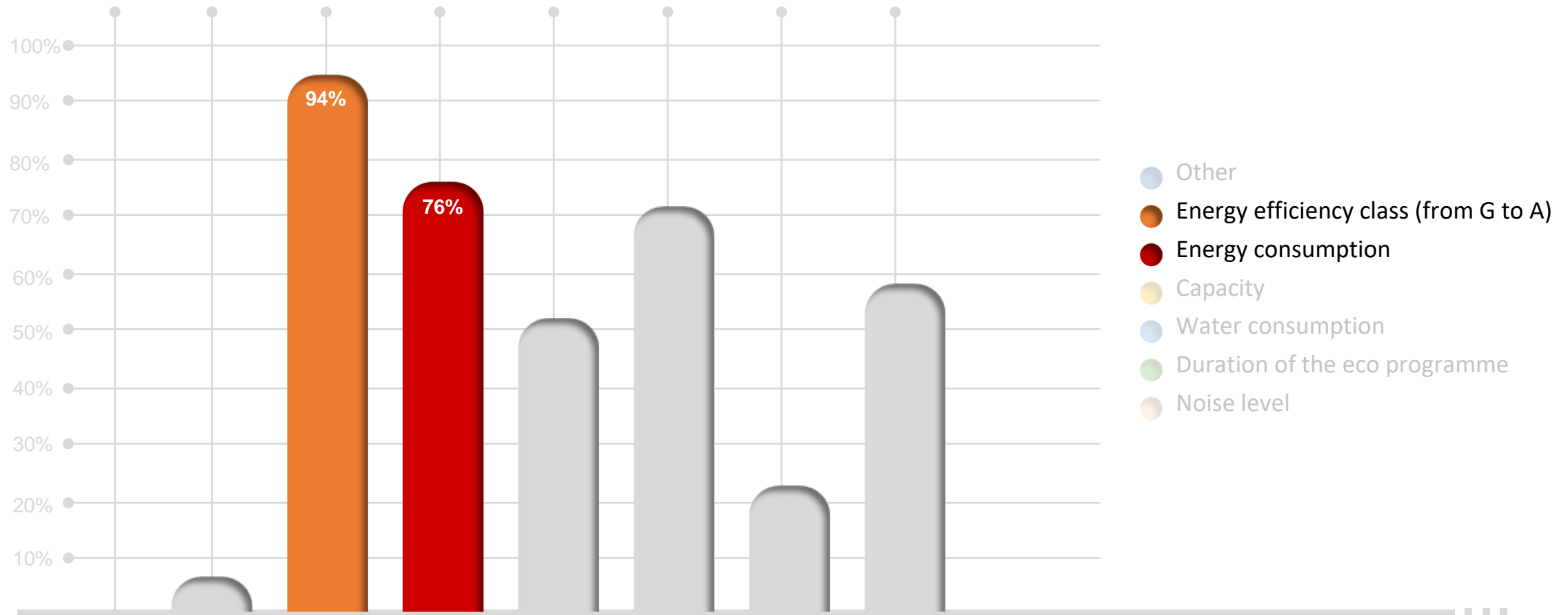
98% of consumers look for the european energy label when buying dishwashers and washing machines





Consumer survey: Preliminary results

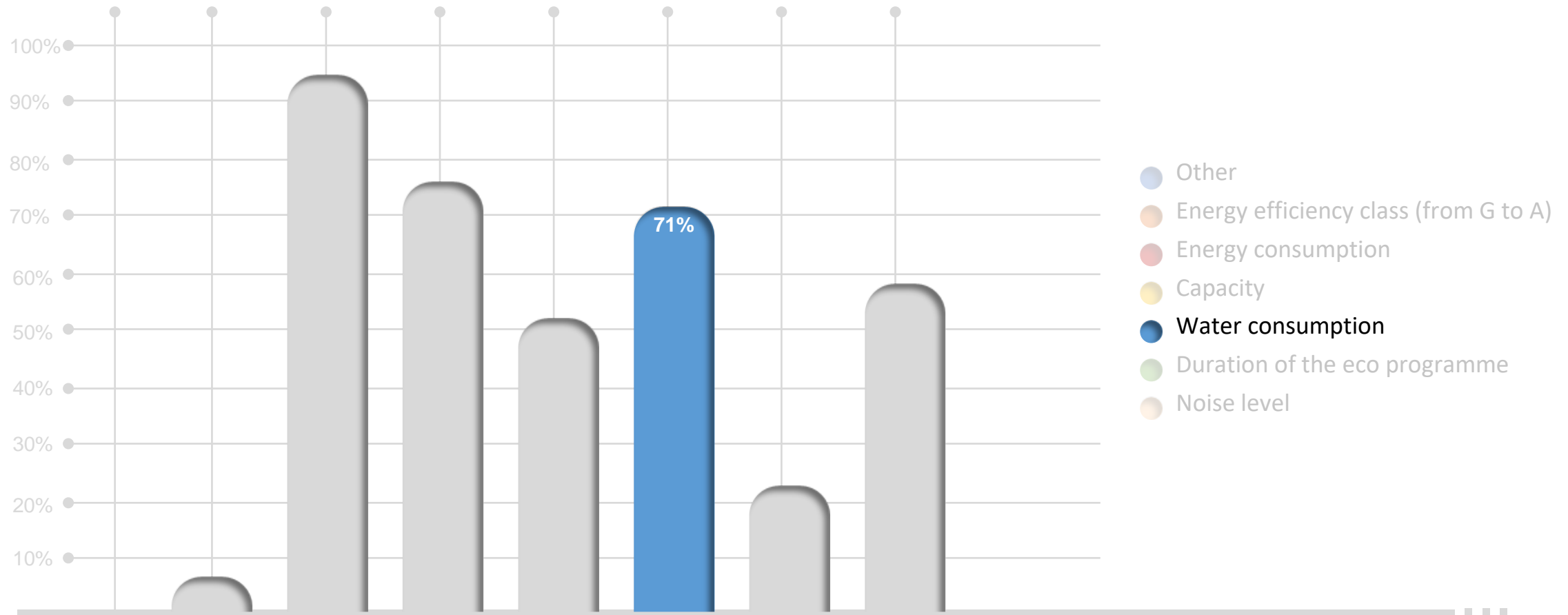
98% of consumers look for the european energy label when buying dishwashers and washing machines





Consumer survey: Preliminary results

98% of consumers look for the european energy label when buying dishwashers and washing machines





Consumer survey: Preliminary results

83%

of consumers choose dishwashers and/or washing machines with low water consumption when buying new ones

17%

...don't.

- 29% • I don't know where to look for this information
- 12% • I don't see advantages in buying a machine with low water consumption
- 10% • Machines with low consumption are more expensive
- 49% • Other



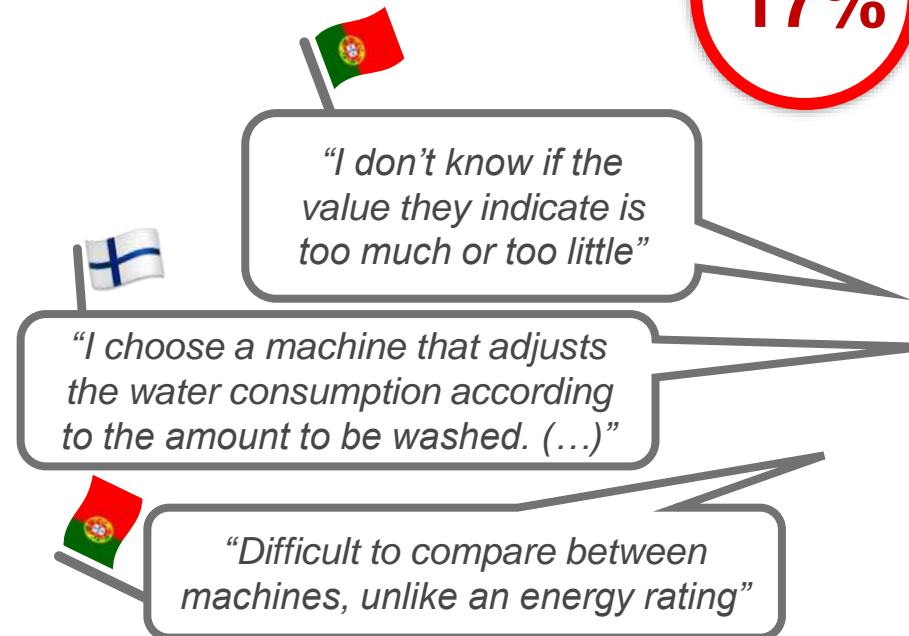
Consumer survey: Preliminary results

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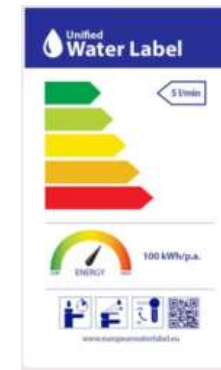
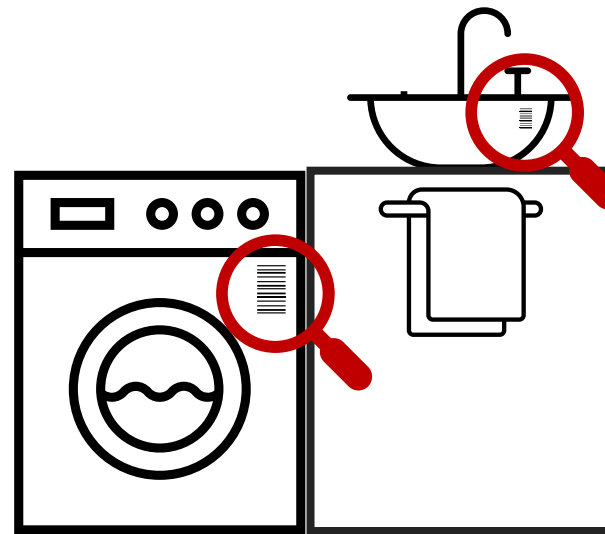




Consumer survey: Preliminary results

Understanding of the European Energy Label and the Unified Water Label

99% of consumers correctly identified the water consumption on a European Energy Label



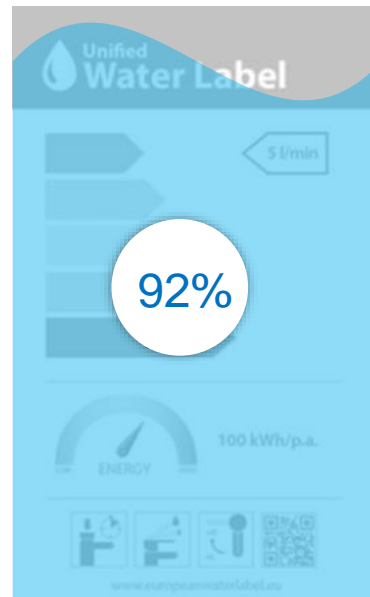
99% of consumers correctly identified the water consumption on a Unified Water Label

29% incorrectly selected the most water efficient machine based on 2 European Energy Labels presented



Consumer survey: Preliminary results

Do you think the Unified Water Label provides relevant information?

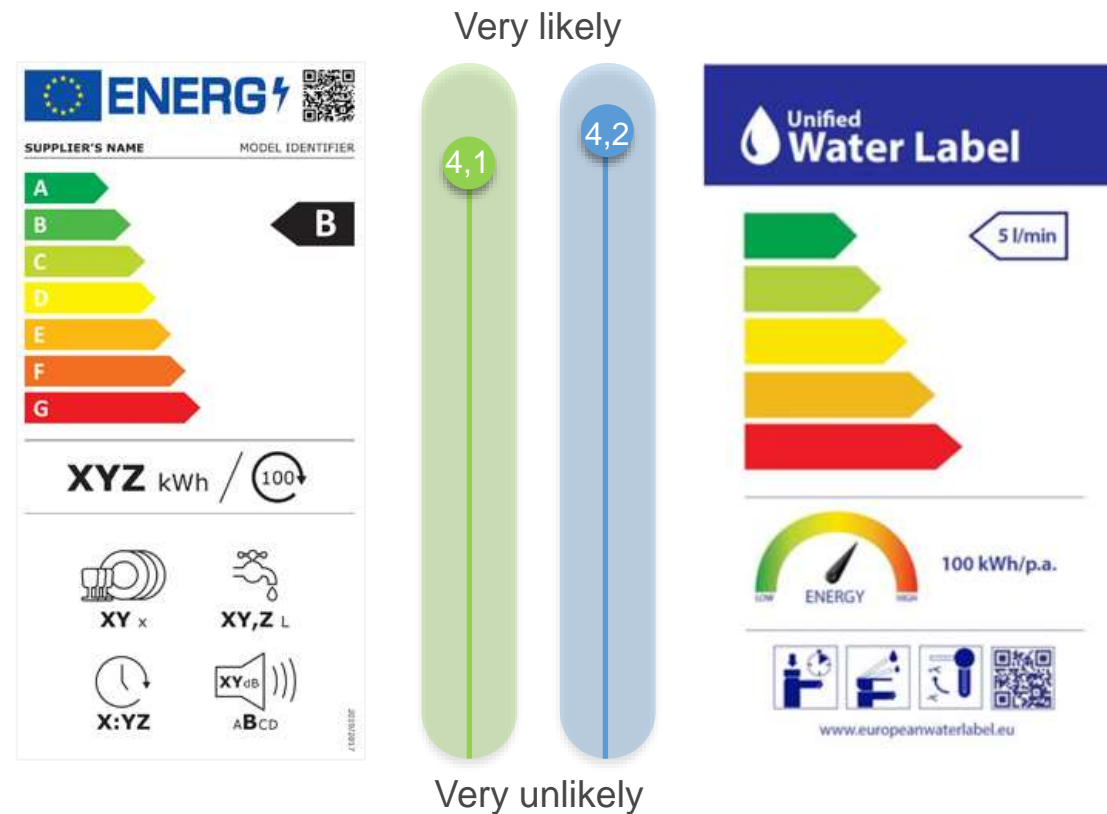


Mainly because it allows **comparison between products/fixtures** and **simplifies the choice of efficient products/fixtures**.



Consumer survey: Preliminary results

If you would find a label like this applied on fixtures, how likely would you have your purchase based on the label information?





Preliminary Conclusions

Consumers want labels for products/fixtures to help them make more efficient choices!

- 💧 Consumers value water labels for taps, showers and flushing systems and water information for appliances
- 💧 They also value energy labels and energy information for these products
- 💧 Water and energy together are preferred

Consumers should be involved in discussions about labeling schemes

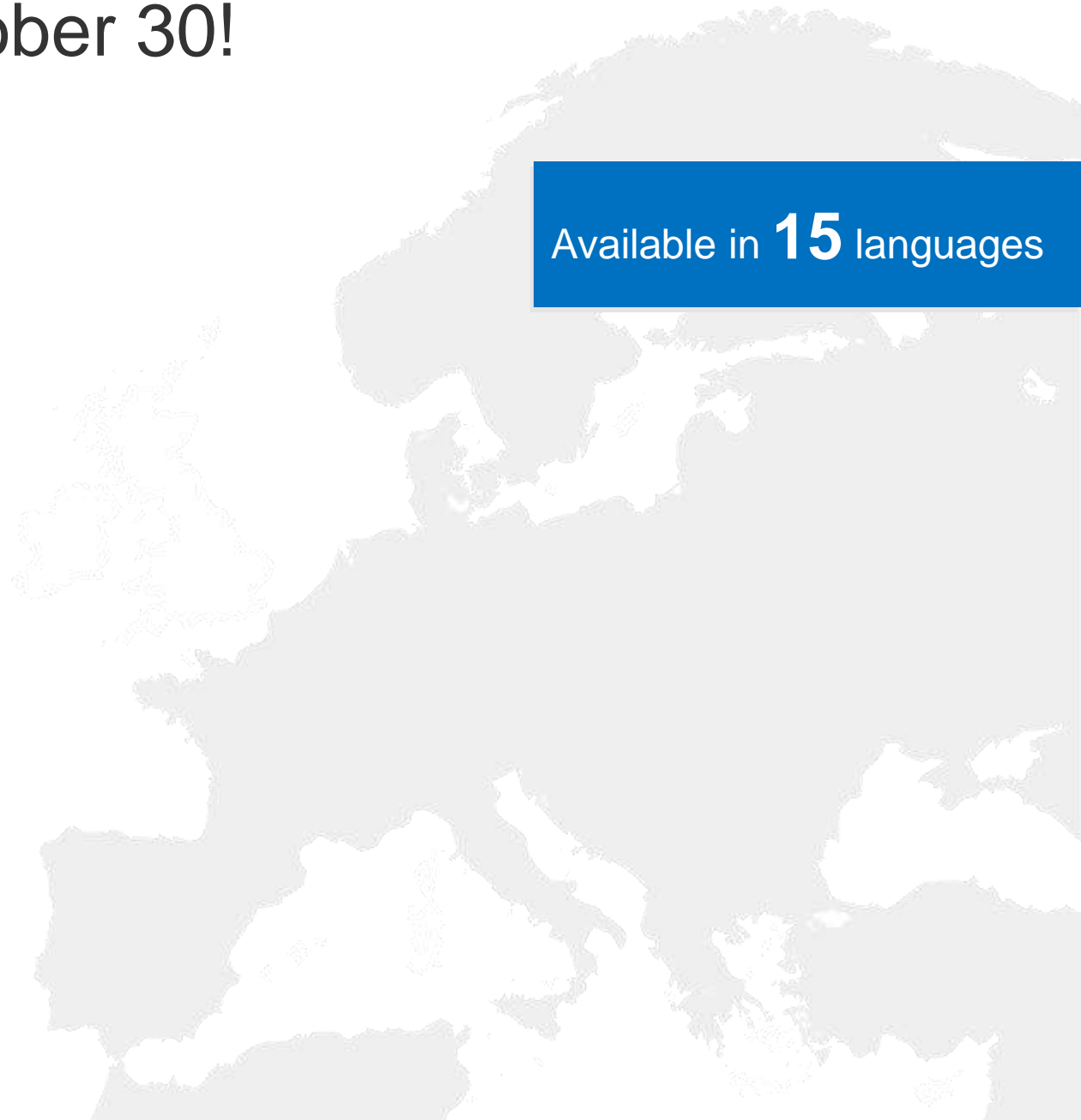


Open for answers until October 30!



<https://enr-network.org/2022/07/european-populations-perception-of-products-and-fixtures-labeling-schemes/>

Available in **15** languages





Thank you for your attention



EnR Presidency 2022