



**Web application at a glance**

---

## **Imprint**

### **Publisher**

Austrian Energy Agency  
Mariahilfer Strasse 136  
1150 Vienna

[thomas.bogner@energyagency.at](mailto:thomas.bogner@energyagency.at)  
[www.energyagency.at](http://www.energyagency.at)

### **Editors**

Thomas Bogner, | AEA

### **Final version**

**11.03.2021**

Created as part of the project LABEL 2020 project. [www.label2020.eu](http://www.label2020.eu)



The LABEL 2020 project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement Number 847062. The sole responsibility for the content of this publication lies with the authors.

## Table of Content

1	Introduction .....	- 4 -
1.1	Project background – LABEL 2020.....	- 4 -
1.2	Overall objectives for LABEL 2020 tool .....	- 4 -
1.3	Inventory of functionalities for LABEL 2020 tool .....	- 5 -
2	Concept overview.....	- 5 -
2.1	Technical concept backend & API .....	- 5 -
2.1.1	Responsive design.....	- 6 -
2.1.2	Accessibility .....	- 6 -
2.2	Country versions: .....	- 6 -
2.3	Product categories covered by the tool.....	- 7 -
2.4	Selected screens for main functionalities.....	- 7 -

## List of figures

Figure 1: simplified SW architecture scheme.....	- 6 -
Figure 2: HOME Screen .....	- 8 -
Figure 3: Screen “Scan QR code on energy label” .....	- 8 -
Figure 4: Screen “Enter brand and model name” .....	- 8 -
Figure 5: Get product data by entering brand (suppliers’s name) and part of model identifier. -	- 8 -
Figure 6: Product data screen (fake product).....	- 9 -
Figure 7: Screen “Label Guide” .....	- 9 -

## List of tables

Table 2: Overall objectives for LABEL 2020 tool.....	- 4 -
Table 3: Overview of core functionalities (indicative) .....	- 5 -

# 1 Introduction

## 1.1 Project background – LABEL 2020

LABEL2020 is an EU-Level initiative designed to support a smooth implementation of the new EU Energy Labels for products in the EU countries. The project will provide various tools and services for consumers, professional buyers, retailers and other stakeholders which will be available also for download from the project website. The project is coordinated by the Austria Energy Agency (AEA) and includes organisations from 15 EU Member States and the UK.

Further information about LABEL 2020 is provided on the project website [www.label2020.eu](http://www.label2020.eu).

The LABEL 2020 initiative's objectives are to support:

- consumers and professional buyers by means of effective information campaigns, services and tools.
- retailers in the correct, efficient and effective implementation of the new label at the point of sale and in online sales channels.
- manufacturers in the provision of correct labelling and product information
- policy makers, multipliers and other stakeholders in the use and promotion of the new label within national programs, initiatives and schemes.

With regard to the first objective, a web based tool supporting consumers in selecting energy efficient appliances and making an informed purchase decision shall be implemented.

This document outlines the relevant technical specifications for the concept, design and development of such web based application.

## 1.2 Overall objectives for LABEL 2020 tool

These objectives identify what consumers would expect to gain from using guidance tools and therefore are considered for the defining the scope and development of an online LABEL 2020 tool for consumers.

Table 1: Overall objectives for LABEL 2020 tool

Objective N°	Objective
<b>A</b>	<b>Consumers are aware of and understand the energy label rescale</b>
A.1	understand the new energy label
A.2	understand the correspondence of label classes between existing and rescaled labels (as approximation, if feasible)
<b>B</b>	<b>Consumers understand the information presented on the new labels</b>
B.1	are able to interpret icons appropriately

B.2	understand the underlying assumptions for consumption values (e.g. annual energy consumption or energy consumption for 100 cycles) and are able to relate/translate this information to their individual consumption pattern (if applicable)
<b>C</b>	<b>Consumers are able to use the information on the label to compare products and to choose the most efficient products (in physical store: mobile use / in online shops: desktop / mobile use)</b>
C.1	are able to compare (based on watch list of seen and saved) products in a shop
C.2	are able to compare based on overall market offer of similar products and / or benchmark information ("synthesized")
C.3	consumers understand which efficiency classes represent the current top in class segment
C.4	customer journey should be easy and simple (relevant in general)
<b>D</b>	<b>Consumers are able to make an informed decision considering the total costs of a product</b>
D.1	are able to assess the running costs for an estimated product lifetime and estimate the expected total costs by adding the purchase price

### 1.3 Inventory of functionalities for LABEL 2020 tool

The following table provides an overview of intended core functionalities

Table 2: Overview of core functionalities

Nr.	Functionality title	Brief description
1	<b>Detailed product information</b>	Provision of more detailed product information beyond what is displayed on the energy label itself by scanning the QR code on the label with smartphone camera.
2	<b>Running costs</b>	Calculation of the product's running costs (energy and water if applicable)
3	<b>Product comparison</b>	Comparison of two or more products in terms of main features, efficiency, running costs, purchase price etc.
4	<b>Efficiency indicator</b>	An at a glance indication if the product is one of the most efficient segments currently available on the market
5	<b>Energy label guidance</b>	Guidance information on new labels e.g. icon glossary, explanation of information shown, how the information has been calculated or measured.

## 2 Concept overview

### 2.1 Technical concept backend & API

Content Management System: eZ Platform , Version 2.5 LTS (Open source enterprise PHP content management system, Based on Symfony3 (full stack))

Server: LAMP environment, preferably Ubuntu 18.04

## Data import - EPREL API

- Access to EPREL via Rest API / JSON Format
- Periodical automated import of product data from EPREL database via Cronjob
- Translation of EPREL data into CMS objects (content type “product”) via Import-Script

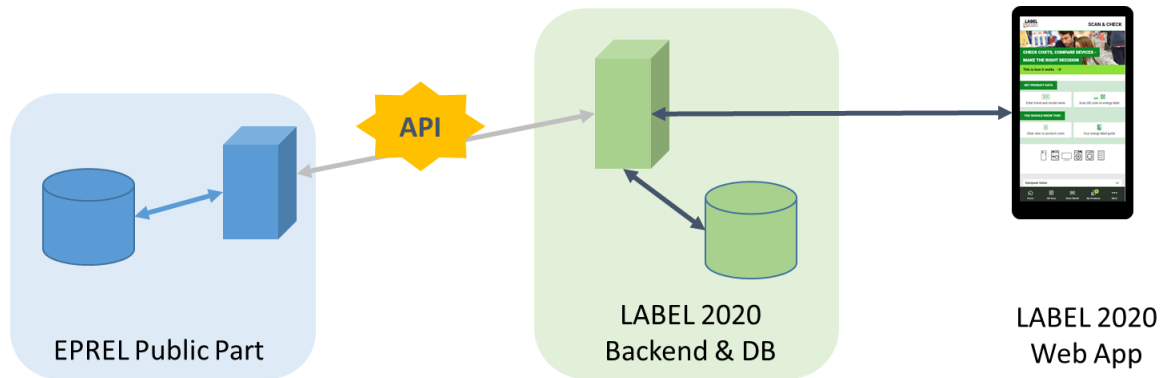


Figure 1: simplified SW architecture scheme

**Note:** Data from EPREL will be retrieved via API (with API key) only as plain data (figures, strings), no pdfs or graphic files. Import will be done twice per week (indicative frequency, could be done only once per week if preferred), import slot could be done during the night. All product data will be buffered on the LABEL 2020 DB. User queries by the LABEL 2020 tool will be handled solely via LABEL 2020 server & DB.

### 2.1.1 Responsive design

The tool shall have a responsive design being optimised as first priority for smartphone use and second priority for desktop use.

### 2.1.2 Accessibility

Accessibility according to WCAG 2.1 Level AA should be guaranteed.

## 2.2 Country versions:

The tool will be accessible in the following country version with the respective national language:

- Austria
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- France
- Germany
- Greece

- Italy
  - Latvia
  - Poland
  - Portugal
  - Romania
  - Spain
  - Sweden
  - UK
- 
- Plus: EU-Version

### **2.3 Product categories covered by the tool**

The following product categories are provided with a rescaled label (including a QR code) from 1<sup>st</sup> March 2021 (for light sources 1. September 2021) onwards:

- Refrigerating appliances
- Wine storage appliances
- Washing machines
- Washer-dryers
- Dishwashers
- TVs and electronic displays
- Light sources

### **2.4 Selected screens for main functionalities**

The main entry point for users (see Figure 2) is to get product data via scanning the QR code (Figure 3). If scanning the QR code is not possible, product data can be retrieved as an alternative by entering the brand and model name (Figure 4 & Figure 5). The tool inter alia indicates the running cost over the expected life time (Figure 6) – and with entering the purchase cost an assumption for total cost.

The web app includes further guiding information, like the label guide (Figure 7) or explanations concerning assessing the total costs of a product.

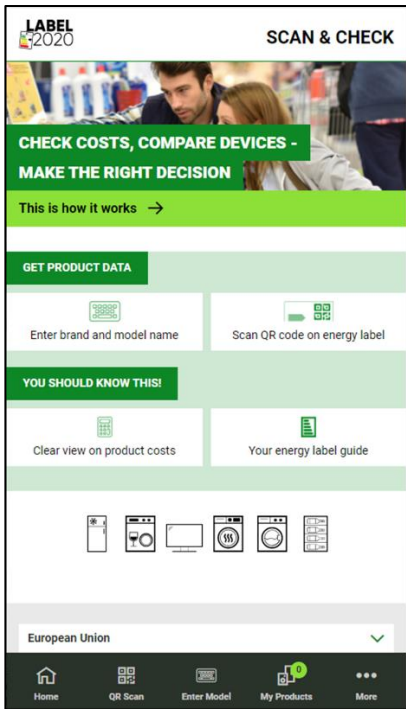


Figure 2: HOME Screen



Figure 3: Screen "Scan QR code on energy label"



Figure 4: Screen "Enter brand and model name"

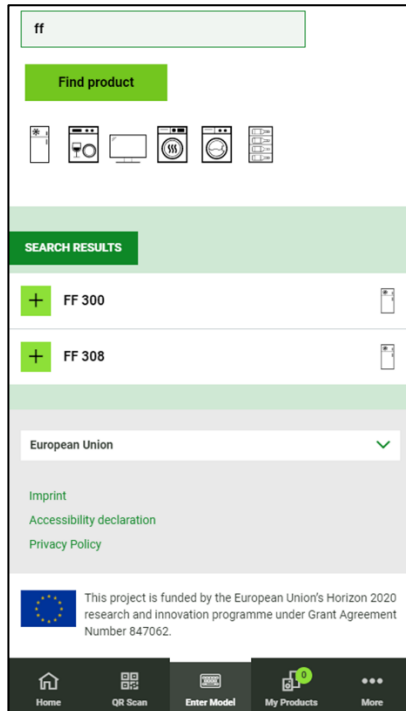


Figure 5: Get product data by entering brand (suppliers's name) and part of model identifier



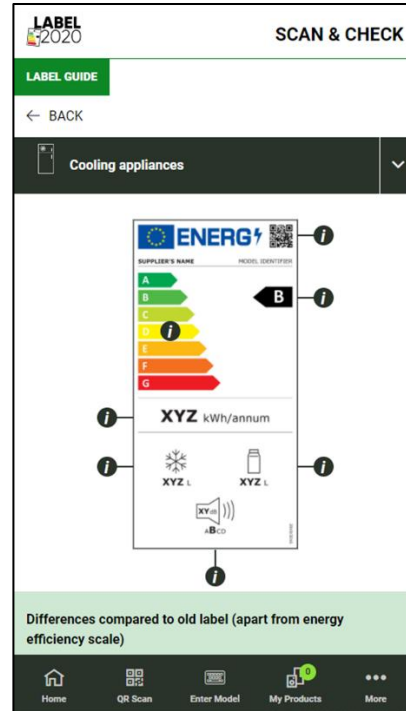
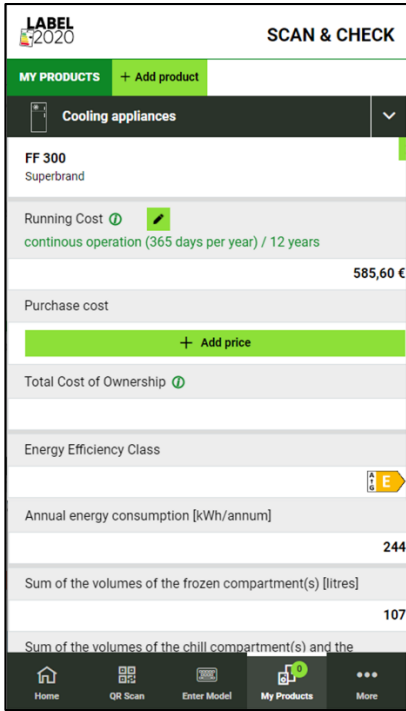


Figure 6: Product data screen (fake product) Figure 7: Screen "Label Guide"