

## National IMPAWATT portals including connected features

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### IMPAWATT IMPlEmentAtion Work and Actions To change the energy cultUre

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# 1 Executive summary

In the industrial and service sector, energy efficiency investments are often not implemented due to a combination of factors and barriers faced by the actors involved. The IMPAWATT project is identifying and addressing these barriers. For this purpose, the project aims at creating a staff training and capacity building platform to enhance corporate policy towards energy efficiency, energy culture and sustainable supply-chain initiatives.

The Impawatt platform is available in 6 European countries also taking into account the multi-lingual situation in the different countries.

## 2 Purpose of this document

This document gives access to the national Impawatt portals that were translated based on the English version <http://eu.impawatt.com/>. The national versions of the platform including the full functionalities have been launched in September 2019. They are accessible via the following URLs:

Switzerland: <https://ch.impawatt.com/>

Austria: <https://at.impawatt.com>

France: <https://fr.impawatt.com>

Italy: <https://it.impawatt.com>

Finland : <https://fi.impawatt.com>

Germany : <https://de.impawatt.com>

Furthermore, this document shall function as prove of implementation of the national platforms for the time after project lifetime in case the platforms are not online anymore by providing screenshots of the different areas of the platforms.

Some features of portal were not available at the time of the submission of the first version of this document, the reasons thereof are explained in brackets below:

- Link to behaviour survey (the consortium decided not to use an external tool but to develop it as portal functionality. This is an add-on feature which will be ready latest at the launch of the national platforms planned for September)
- Quiz tool (the consortium decided not to use an external tool but to develop it as portal functionality. This is an add-on feature which will be ready latest at the launch of the national platforms planned for September)
- Link to LCA tool which is not yet ready (the consortium decided not to use an external tool but to develop it as portal functionality. This is an add-on feature which will be ready latest at the launch of the national platforms planned for September)
- Link to the energy management system iESA (will be ready latest for the launch of the portals in September)

These features and content are now in place and will be explained in the following section by screenshots.

## 3 Platform sections and features

### 3.1 Landing page

The landing page includes:

- The registration and login area
- The sub-navigation to choose the language and country, the contact, the imprint, the privacy statement, the project description, the landing page link
- The main navigation: energy culture, energy efficiency, sustainable supply chain, search measures, each with a general description of the subject and the point home which is linked to the landing page
- 8 Boxes:
  - Get started explaining the use of the platform including a pdf guideline
  - Quick search measures with access to the content search and with the possibility to directly search by keywords
  - Login box
  - What is energy culture (teaser to main navigation point)
  - Energy efficiency (teaser to main navigation point)
  - Sustainable supply chain (teaser to main navigation point)
  - About the project
  - News
- Partners logos
- Footer with EU logo and funding indication and legal disclaimer

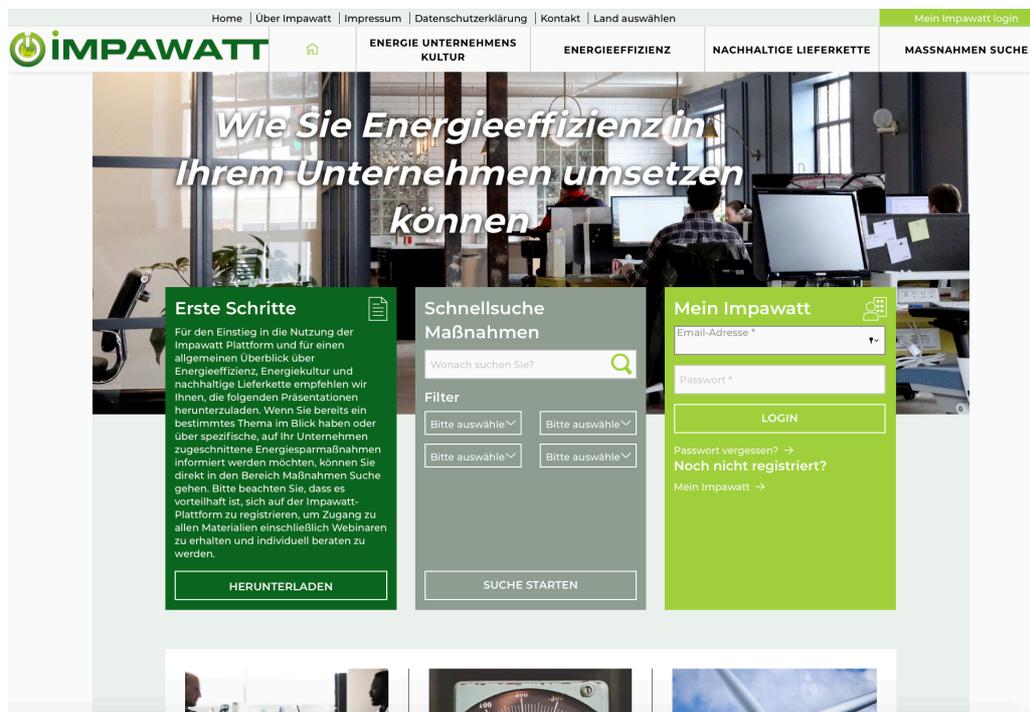


Figure 1: German Landing page upper part



Figure 2: German landing page - bottom part

### 3.2 Landing pages of different national versions

From the English master version of the Impawatt portal <https://eu.impawatt.com> the different national versions of the portal can be accessed by “choose country” point at the sub-navigation:



Figure 3: Choose country on English Impawatt portal

The different national versions of the portals can be accessed from “choose language” point at the sub-navigation.

As proof of their existence, the following figures depict the landing pages of the different national Impawatt portals:



Figure 4: French Impawatt landing page



Figure 5: Swiss Impawatt landing page (French)



Figure 6: Swiss Impawatt landing page (German)



Figure 7: Austrian Impawatt landing page



Figure 8: Italian Impawatt landing page



Figure 9: Finish Impawatt landing page

### 3.3 Registration

On each main navigation point page, there is a teaser to register and a link to the search engine, order to motivate companies to register, provide their profile data and get the most of Impawatt.

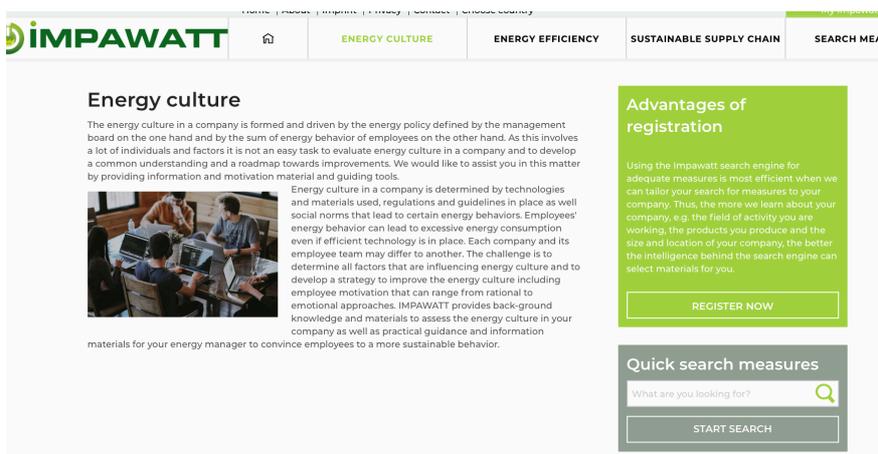


Figure 10: Main navigation point energy culture with registration teaser and Quick search measures

The registration process is ensured by double-opt-in, that means the users receives an email from the Impawatt backend where he has to confirm his/her registration. Thus, only registration of humans is possible and bots are avoided.

### 3.4 Search/Filter engine

The main navigation point Search measures leads to the search engine where different filters can be set to get filtered content by ticking the filters:

**Search measures**

Now you are at the heart of the platform! The intelligent search engine for energy saving measures will help you find the best measures tailored to your company. But to be intelligent and advise you the best way, our platform has to learn more about your company and its activities.

What are you looking for?

We found 50 measures for you. sort by

1 2 3 4 5 >

**Energy efficiency** **Energy culture** [3.1\_3.1] Tool ⓘ

**Energy behaviors survey for employees**

Survey about energy related behavior, lifestyle and culture

★★★★★ 0

**Energy efficiency** **Energy culture** [3.1\_3.1] Tool ⓘ

**Energy behaviors survey for energy manager**

Survey about energy related behavior, lifestyle and culture

★★★★★ 0

**Energy efficiency** [2.1\_2.1-2] Power point ⓘ

**Benefits of energy efficiency - How to convince management/employees - Energy Efficiency as strategic decision**

This presentation explains how energy efficiency can help to reach strategic goals in a company by reducing costs, risks and increase the value position.

★★★★★ 0

**Energy efficiency** [2.1\_2.1-3] Power point ⓘ

**Advantages of registration**

Using the Impawatt search engine for adequate measures is most efficient when we can tailor your search for measures to your company. Thus, the more we learn about your company, e.g. the field of activity you are working, the products you produce and the size and location of your company, the better the intelligence behind the search engine can select materials for you.

**FILTER BY**

**ENERGY CARRIER** ^

- Fuel for heating
- Electricity
- Heating Gas
- Wood
- District heating
- Butane
- Propane
- Fuel for mobility
- Other

**MAIN TECHNOLOGIES** ^

- Energy management
- Lighting
- Office
- Hydraulic and insulation of pipes
- Heating of buildings and envelope
- Cooling
- Compressed air
- Fans
- Pumps
- Steam
- Industrial furnaces

Figure 11: Search engine for content

### 3.5 Impawatt features for registered users

If a user registers, he gets access to the My Impawatt space and the following dashboard will appear with four different options:

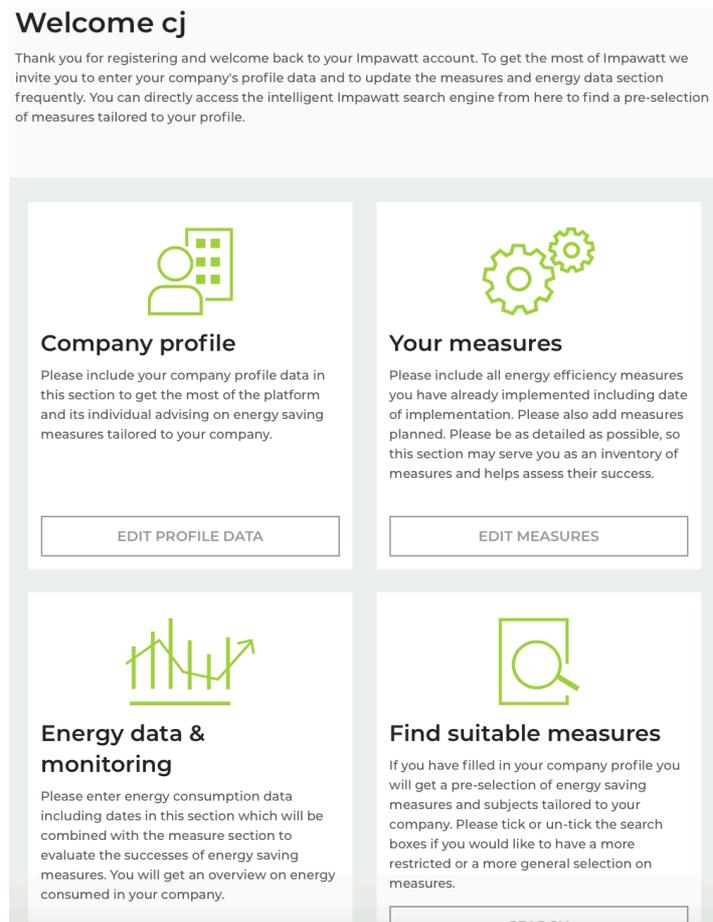


Figure 12: My Impawatt dashboard for registered users

By entering his *Profile data*, the user gets a pre-selection of content elements that fit to his company (sector, equipment, site size) and role in the company (energy manager, CEO, technician, administration).

### Your company profile

To get the most of Impawatt we invite you to enter and update your company's profile data.

**Attention:**  
You need to fill and save your company profile first, to get access to the whole functionalities of the "My Impawatt" Dashboard.

Company Basic Setup

Company Additional Setup

Company name *	<input type="text" value="SEN"/>	
Registration number (VAT, ...) *	<input type="text" value="DE 9999"/>	
Country *	<input type="text" value="Great Britain"/>	
City *	<input type="text" value="Munich"/>	
Location / Site (Address)	<input type="text" value="Lipowsky 26"/>	
Contact phone number	<input type="text" value="A official contact phone number of your company"/>	
NACE (Sector)	<input type="text" value="NACE (Sector)"/>	
Company / Site size *	<input type="text" value="100"/>	employees
Building / Site purpose *	<input checked="" type="checkbox"/> Office <input type="checkbox"/> Storage	<input type="checkbox"/> Production site <input type="checkbox"/> Store
Main energy consuming equipment *	<input checked="" type="checkbox"/> Energy management <input checked="" type="checkbox"/> Office <input type="checkbox"/> Hydraulic and insulation of pipes <input checked="" type="checkbox"/> Heating of buildings and envelope <input checked="" type="checkbox"/> Cooling	<input checked="" type="checkbox"/> Lighting <input type="checkbox"/> Compressed air

Figure 13: Company profile

In the *Your measures* section, the user may enter energy efficiency improvements planned and implemented including details such as cost of implementation and energy savings estimated or achieved.

### Company measures

Please update this section collecting planned and implemented energy measures frequently to get an overview and evaluate successes.

Implementation date	Measure category	Measure title
2020-11-20	Office	Running time, energy manager configuration, automatic shutdown programming ... (offices)

[← back to the dashboard](#)

**SEN** ▼

Delete this company

**My Impawatt**

To get the most of Impawatt we invite you to enter your company's profile data and to update the measures and energy data section frequently.

**NEXT STEPS**

- Complete / Edit your company profile
- Enter your planned / already implemented measures
- Enter your consumption data and costs
- Check your monitoring

Figure 14: Company measures overview including action board on the right

### Company measures

Please update this section collecting planned and implemented energy measures frequently to get an overview and evaluate successes.

Implementation status  already implemented  planned

Implementation date \* 2020-11-20

Measure category \* Office

Measure title Running time, energy manager configuration, automatic shutdown prog

Measure description Shortly describe the measure

Energy savings (calculated) \* 100 kWh/a

Energy savings (implementation) 80 kWh/a

Investment cost (calculated) \* 100 EUR

Investment cost (implementation) 90 EUR

Payback period \* 2 years

Energy share of investment cost \* 100 %

Implementation comment Description of the implementation

Energy savings calculation Description on the energy savings calculation

Figure 15: Company measures input form

In the *Energy data and monitoring section* energy meter readings and bills can be entered including time-stamp and the iESA can be accessed (interactive Energy Savings Account). Data are automatically transferred from Impawatt to iESA.

### The interactive Energy Savings Account (iESA)

The Impawatt platform is connected to the interactive Energy Savings Account a monitoring system for evaluation and visualization of energy and water consumption, costs and CO2 emission. The use of iESA is free of charge for registered Impawatt users.

Energy Data IESA Monitoring

open iesa

← back to the dashboard

Figure 16: Link from energy data and monitoring to iESA

*Find suitable measures* is the link to the search measures page with a compilation of measures that fit to the company profile.

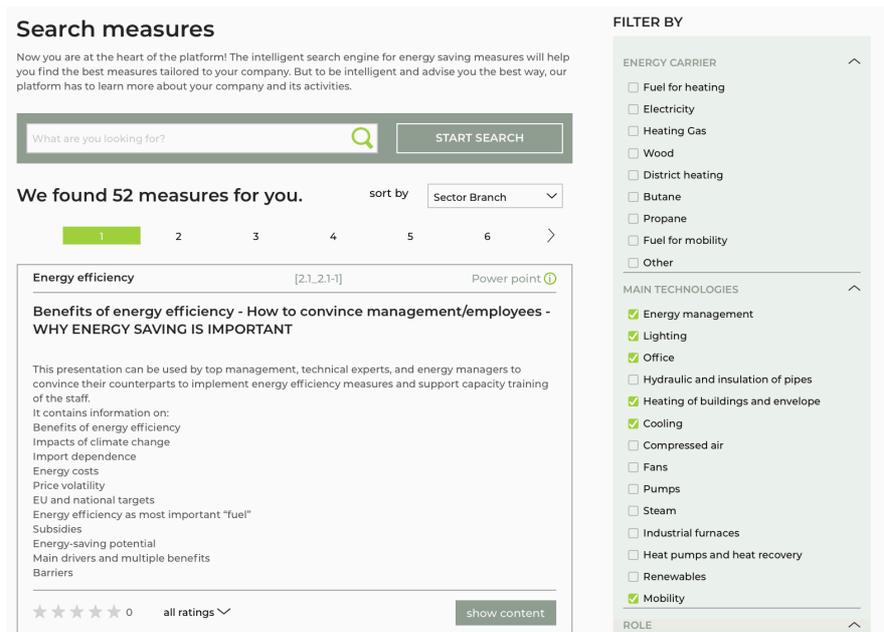


Figure 17: Pre-selection of measures according to company profile

### 3.6 Behavior survey

The Impawatt surveys are stored as content elements and can be searched by the keyword *survey* in the search engine. Once the user clicks *Take part*, the survey appears in the *My Impawatt* section *My Surveys*. From this section, the surveys can be tested employees can be invited to participate and results can be shown (number of started surveys and invitations sent):

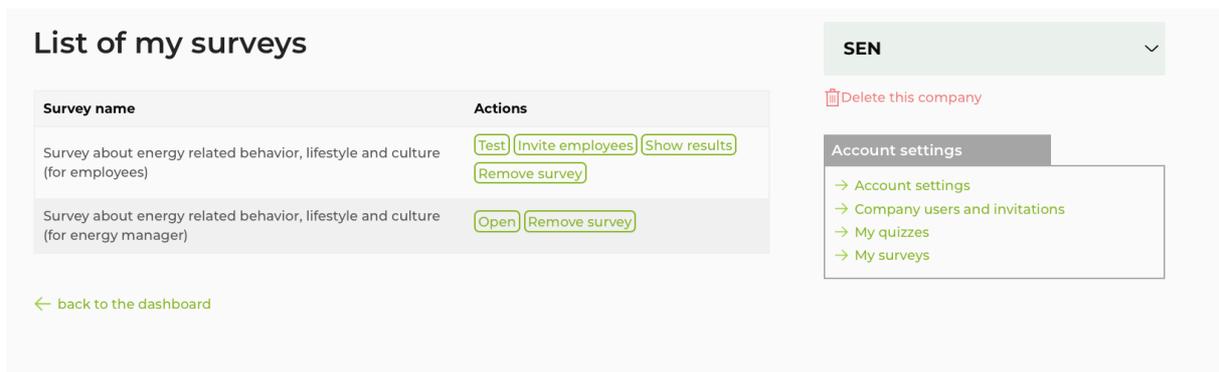


Figure 18: Impawatt survey section

If the user clicks test survey, the questionnaire appears and he/she is guided through the questionnaire:

46% completed!

### Survey about energy related behavior, lifestyle and culture (for employees)

Thank you for agreeing to take this survey about energy behaviors, lifestyle and environmental practices. The survey is a part of IMPAWATT EU project and it aims to provide tools to support energy efficiency in companies.

6) Energy related behaviors and lifestyle: How often do you switch off appliances (screen, computers etc.) and lights, when they are not used?

- a) Never
- b) Very rarely
- c) Occasionally
- d) Frequently
- e) Very frequently

Back Next

Figure 19: Survey questionnaire

The results are given, by clicking on *show results*:

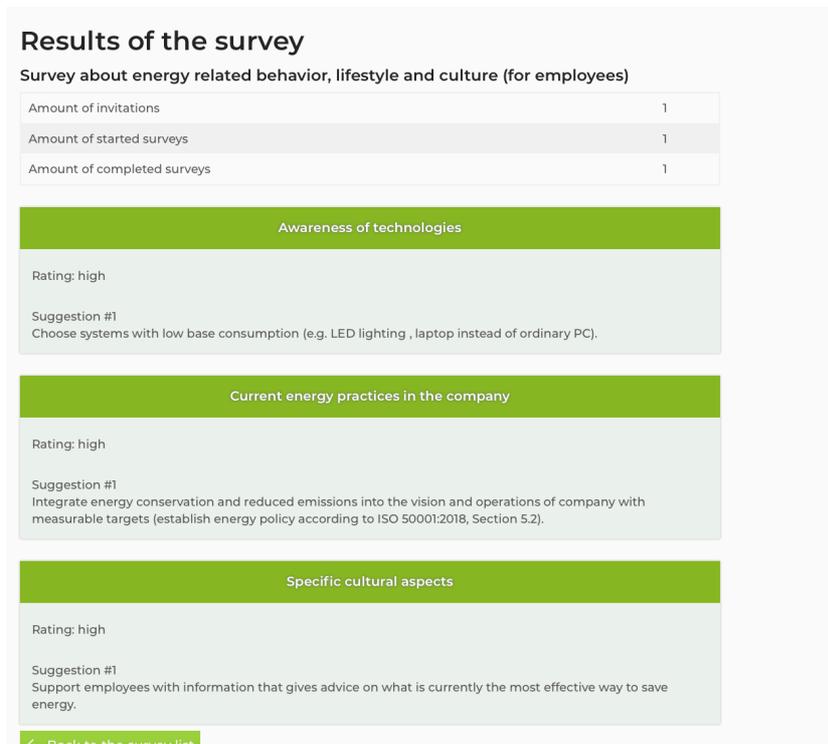


Figure 20: Survey results

### 3.7 Quiz section

The Impawatt quizzes are stored as content elements and can be searched for in the search engine. In the *My Impawatt* section *My Quizzes* the quizzes can be copied, tested and employees can be invited to participate:

Quiz name	Actions
Quiz mobility	Test Invite employees Show results Delete quiz
Quiz cooling	Test Invite employees Show results Delete quiz
Quiz office	Test Invite employees Show results Delete quiz
Quiz lighting	Test Invite employees Show results Delete quiz
Quiz renewables	Test Invite employees Show results Delete quiz
Quiz heating building envelope	Test Invite employees Show results Delete quiz
Quiz on Sustainability indicators	Test Invite employees Show results Delete quiz
Quiz fans	Test Invite employees Show results Delete quiz
Quiz insulation pipes and heat distribution	Test Invite employees Show results Delete quiz
Quiz energy management	Test Invite employees Show results Delete quiz

Figure 21: List of quizzes selected by Mr./Ms. Energy

**Invitations**

Here you can invite colleagues or employees to take part on the quiz or survey. Please enter the e-mail address of the person you want to invite to the quiz

Invitation \*

Figure 22: Quiz invitation

After filling in the quiz questionnaire, the results are shown immediately:

**Quiz mobility**  
You scored 7 out of 10 points!

1) In which country do you find the most passenger cars per capita?

- a) United State
- b) China
- c) Europe

2) What share of passenger cars in passenger transport in Europe?

- a) 74%
- b) 83%
- c) 92%
- d) 98%

3) What is the share of transport in Europe's energy consumption?

- a) 11%
- b) 22%
- c) 33%
- d) 44%

4) What are the health costs related to car pollution in Europe per year?

- a) 10-20 million €
- b) 30-40 million €
- c) 50-60 million €
- d) 70-80 million €

Figure 23: Mobility Quiz Questionnaire

The Impawatt portal user that invited his/her colleagues to take part to the survey gets an overview on the correct answers and points that were achieved by all invited participants:

## Quiz results

### Quiz mobility

Amount of invitations	0
Amount of started quizzes	0
Amount of completed quizzes	0
Score	0 (0) Points

#### 1) In which country do you find the most passenger cars per capita?

Answer	Answer count	Points
a) United State	0	0
b) China	0	0
c) Europe	0	1

#### 2) What share of passenger cars in passenger transport in Europe?

Answer	Answer count	Points
a) 74%	0	0
b) 83%	0	1
c) 92%	0	0
d) 98%	0	0

#### 3) What is the share of transport in Europe's energy consumption?

Answer	Answer count	Points
a) 11%	0	0
b) 22%	0	0
c) 33%	0	1

Figure 24: Quiz results for Mr./Ms. Energy

## 3.8 Impawatt development

The national Impawatt platforms were based on the English master version of the Impawatt platform accessible on <https://eu.impawatt.com> and translated by partners. This could be done directly in the platform in the text content section:

Text Backend

Category:  NOT TRANSLATED BACKEND TEXTS SHOW NOT TRANSLATED TEXTS

Category:  Category:

EMAILQUIZ\_INVITATION.HEADER

English Quiz invitation	Deutsch Einladung zum Quiz EDIT VIEW ON WEBSITE
----------------------------	---

EMAILQUIZ\_INVITATION.SUBJECT

English You were invited to a quiz	Deutsch Sie wurden zu einem Quiz eingeladen EDIT VIEW ON WEBSITE
---------------------------------------	--

EMAILQUIZ\_INVITATION.TEXT

English Please follow the link below to take part on the quiz.	Deutsch Sie wurden zu einem Quiz eingeladen. Bitte klicken Sie auf den Link unten, um am Quiz teilzunehmen. EDIT VIEW ON WEBSITE
---	--

Figure 25: Text backend for translation

The content for each translated content elements of the platform were uploaded and their particularities like the filter tags were taken from the English master version of the content.

Content Management

Name\* Umfrage zum Energieverhalten von Mitarbeitern [3.1.3.1]

Identification 3.1.3.1

Language\* German

Visibility\*  For logged in users  For everyone

Type\*  Text  Quiz  File

Description\*   
 Umfrage zu energiebezogenem Verhalten, Lebensstil und Kultur  
 Powered by Tiny

Quiz Energy behaviors survey for employees [3.1.3.1]

**ENERGIETRÄGER**

<input checked="" type="checkbox"/> Heizöl	<input checked="" type="checkbox"/> Strom
<input checked="" type="checkbox"/> Gas	<input checked="" type="checkbox"/> Holz
<input checked="" type="checkbox"/> Fernwärme	<input checked="" type="checkbox"/> Butan
<input checked="" type="checkbox"/> Propan	<input checked="" type="checkbox"/> Benzin/Diesel
<input checked="" type="checkbox"/> Sonstige	

[ADD FILTER](#)

Figure 26: Content Management section

The developed was based on a common concept for the design and implementation of the platforms which was developed starting with a partner workshop at the beginning of the project and further elaborated during the first 4 months of the project. The common concept for the design and implementation is compiled in a public report that is available on the Impawatt project website <https://www.impawatt.com/service/downloads/>.

The design of the frontend was sub-contracted to a graphic designer. For the backend implementation in PHP 5.6, the PHP Framework Phalcon Version 3 is used. HTML and CSS are implemented using the web frameworks Foundation in version 6 and Sass in version 3. The JavaScript components of the web application are implemented with jQuery. MySQL version 5.6 is used as data base server. The finalized portal will be provided by an Apache web server version 2.4.

### 3.9 Relation to other activities in the project

The national Impawatt platforms will be promoted by communication activities planned by the Consortium, e.g. workshops and events during conferences.

### 3.10 Partners' contribution

Partners translated the English version of the platform to their countries' language(s) and uploaded the translated content to their respective national portal. As in Finland English very common also as corporate language, some content elements have not been translated into Finnish but are provided in English.