EDSF Energy Label
for automatic doors

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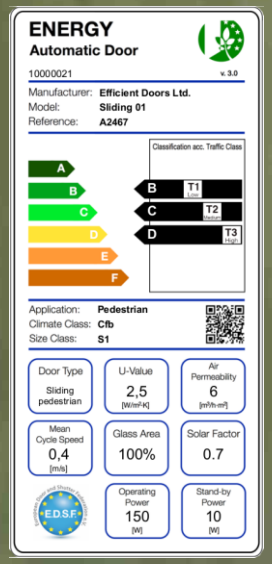
Why an Energy Label

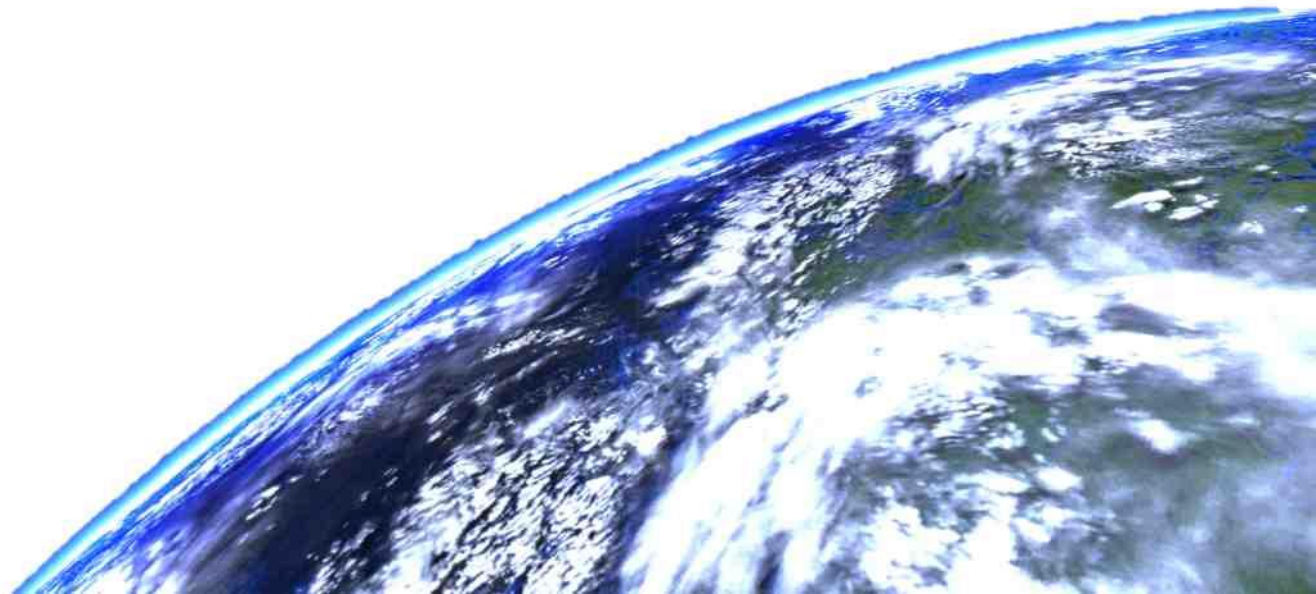


- A thermally optimised, well insulated door with an intelligent automation system makes a fundamental contribution to the energy efficiency of a building as a whole.

- Energy labelling allows you to compare different automatic door options from the energy point of view.

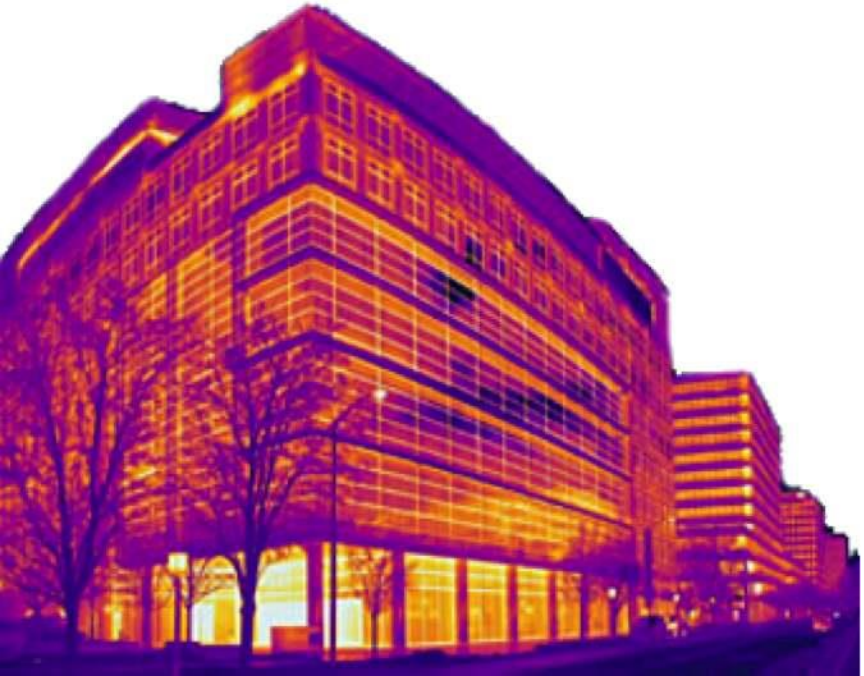
Key Facts

Buildings constitute a fundamental component of global energy demand and CO_2 emissions.



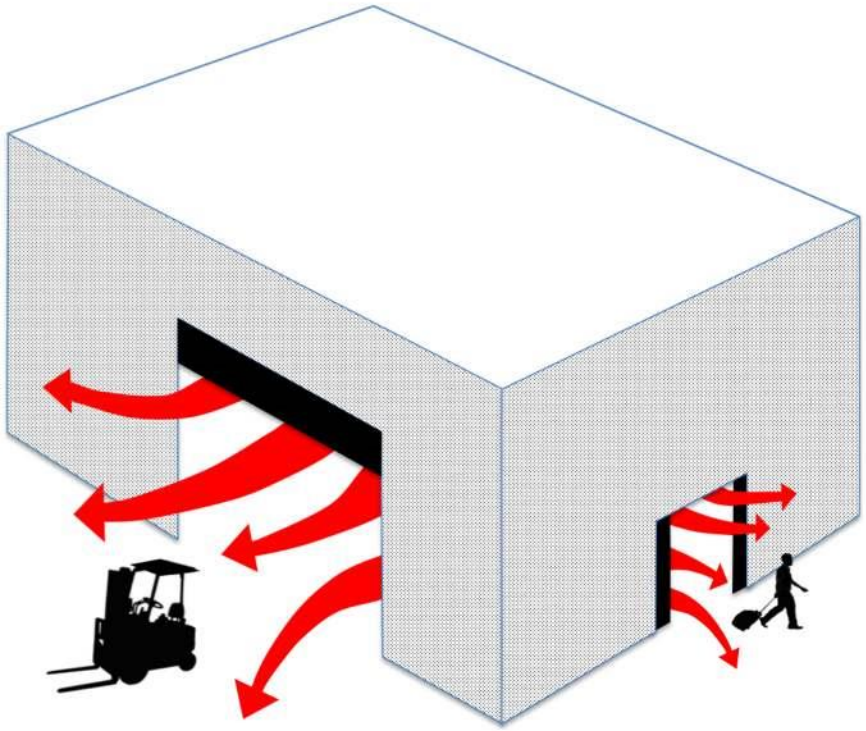
Key Facts

Doors have a much higher impact on the energy consumption of a building that is widely recognised.



Key Facts

The majority of the energy loss through doors usually occurs when the door is open, not when it is closed.



Technical Basis

Energy Losses Through an Automatic Door

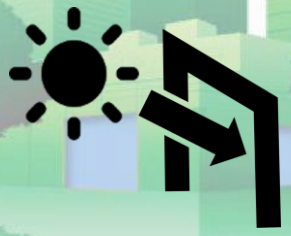
Heat Transmission

"U-Value"

Air Leakage

"Air Permeability"

Solar Radiation



"Solar Factor"

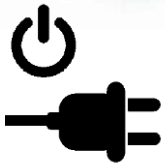
Air Infiltration

"Opening Speed"

Long Wave Radiation

"Emissivity"

Electrical Consumption



"Operation & Stand-by Power"

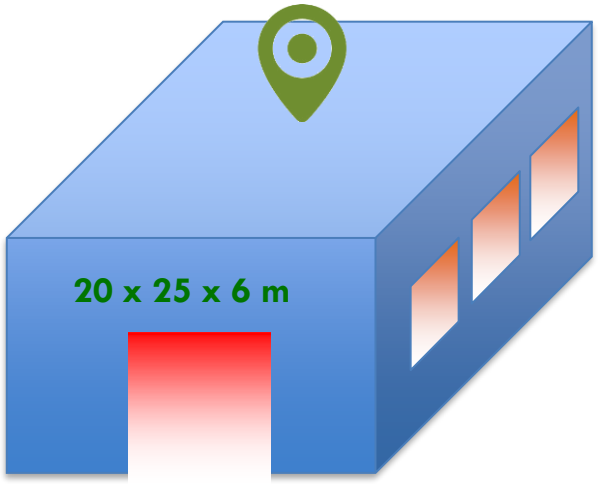
Technical Basis

Example: Doors vs Windows

Sectional Door

- Area = 9 m^2
- U-Value = 2,5 $W/m^2 \cdot K$
- Air Permeability = 6 $m^3/h \cdot m^2$
- Glass area = 20%
- Solar factor = 0,75
- Emissivity = 0,9
- Opening Cycles per Year = 50000
- Opening Time per Cycle = 20 s
- Operation Power = 300 W
- Stand-by Power = 15 W

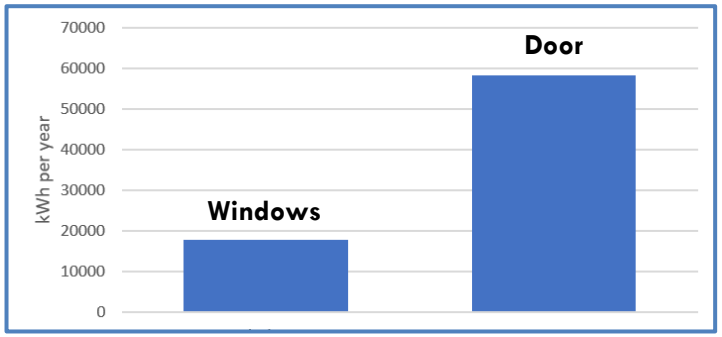
Brussels



Windows

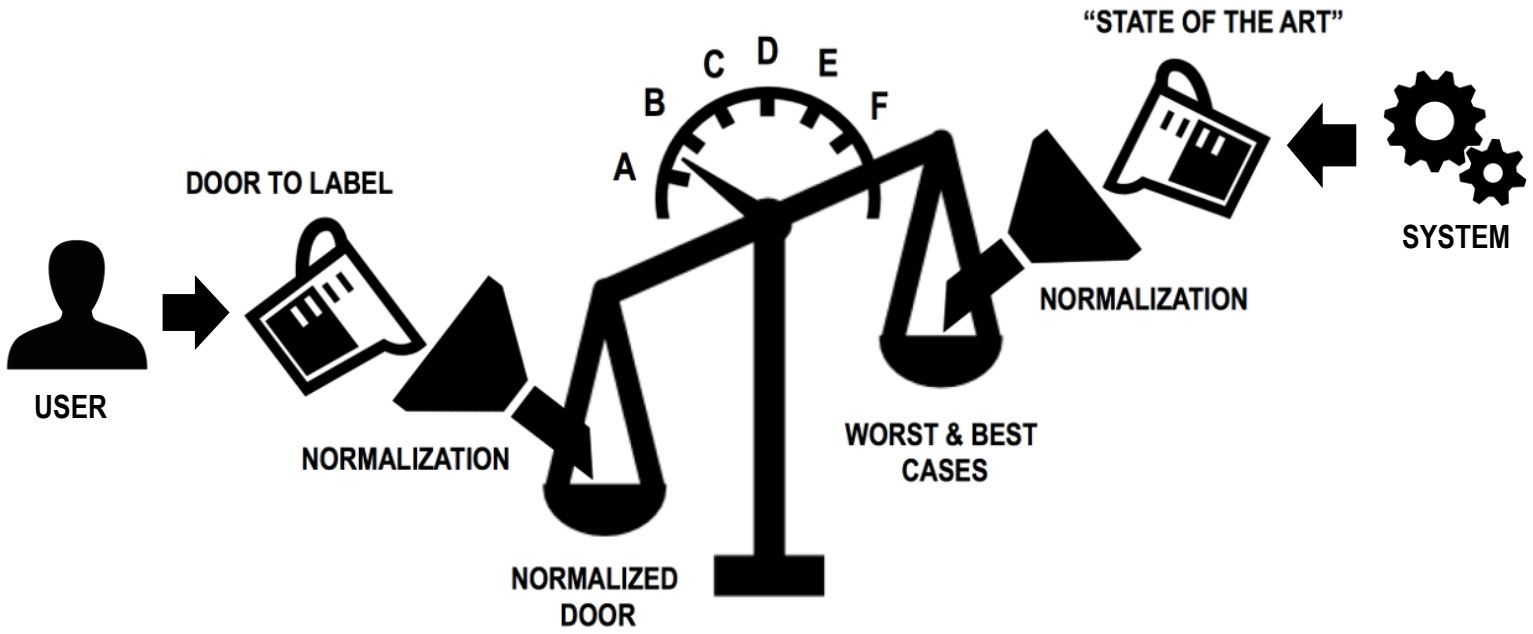
- Area = 40 m^2
- U-Value = 2,5 $W/m^2 \cdot K$
- Air Permeability = 6 $m^3/h \cdot m^2$
- Glass area = 90%
- Solar factor = 0,75
- Emissivity = 0,9
- Opening Cycles per Year = 365
- Opening Time per Cycle = 300 s

Energy Losses in kWh per year



Classification Method

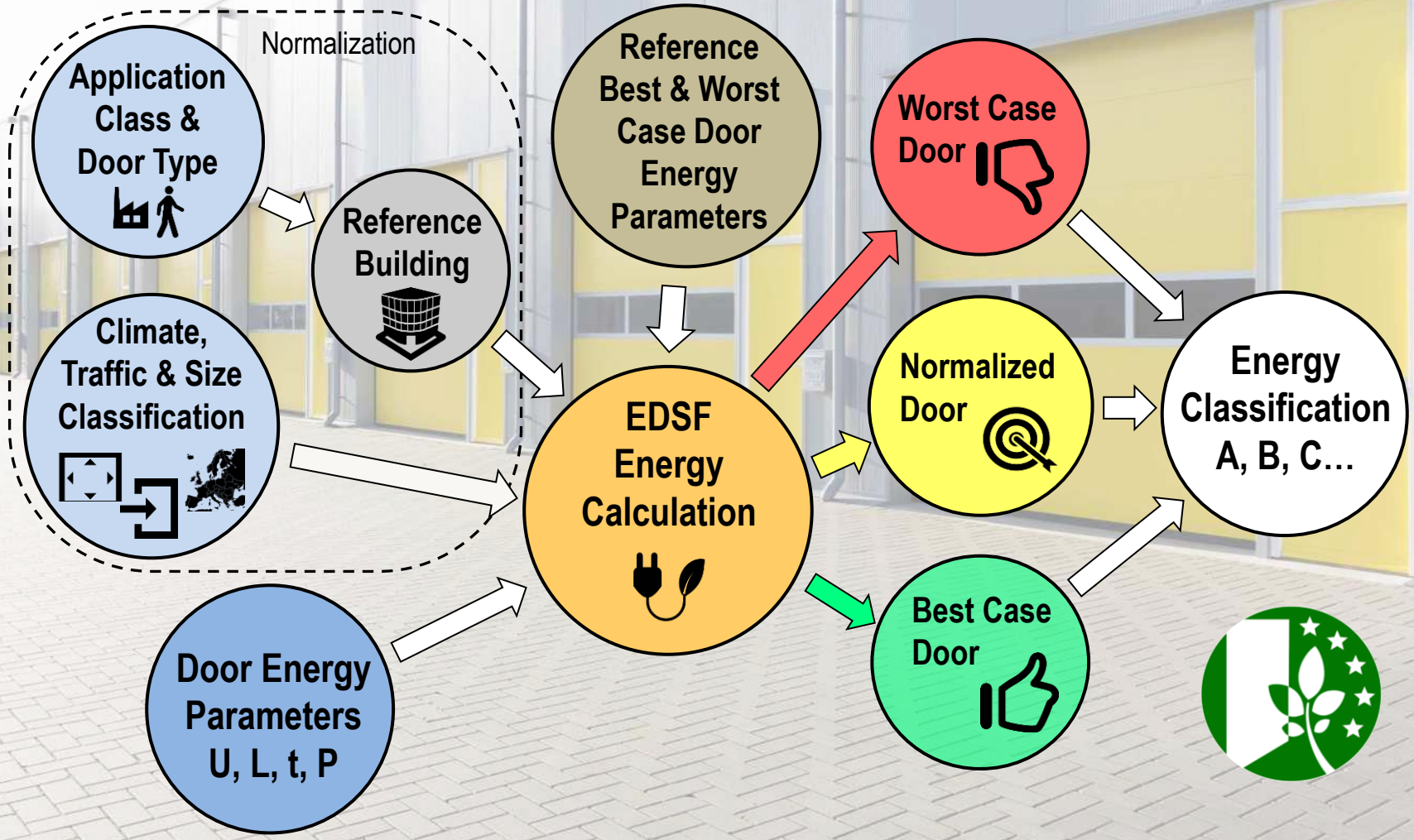
Concept



A	B	C	D	E	F
Best Case	Very High Performance	High Performance	Intermediate Performance	Low Performance	Very Low Performance
Relative Losses 0%< E <15%	Relative Losses 15%< E ≤30%	Relative Losses 30%< E ≤45%	Relative Losses 45%< E ≤60%	Relative Losses 60%< E ≤75%	Relative Losses 75%< E ≤100%

Classification Method

Calculation Procedure



Label Description

Structure & Content

Only products with the same three class values are comparable in energy terms

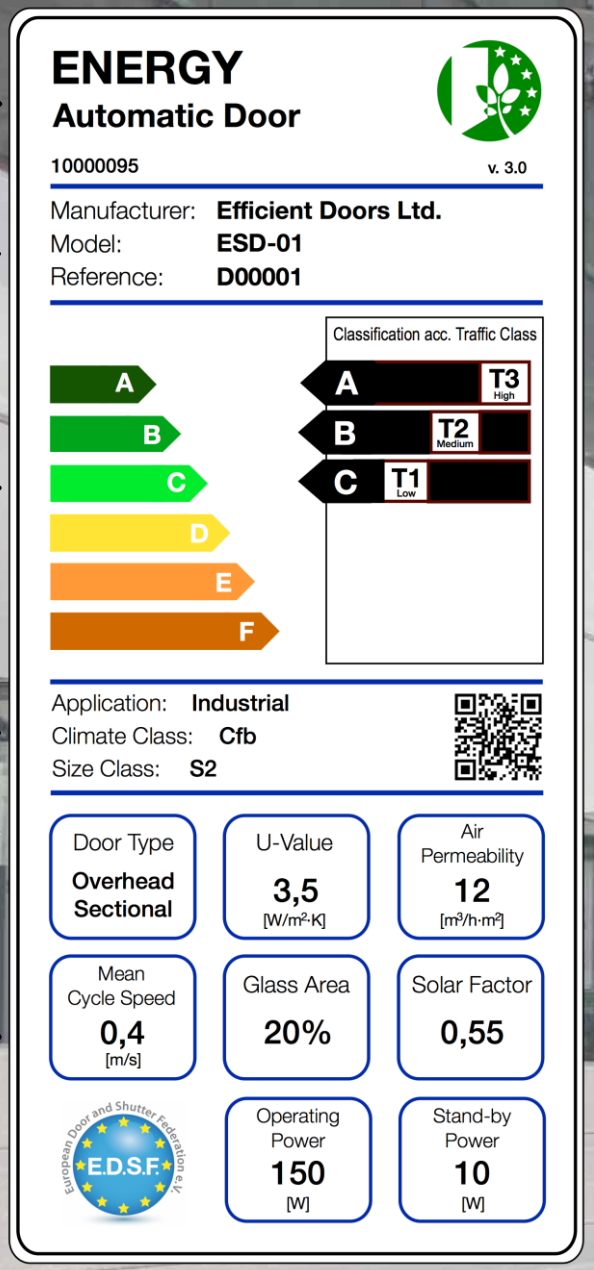
Header
EDSF Label Number
Label Version

Manufacturer, Model & Product Part Number

Energy Scale & Classifications

Door Classification
QR Code to Website

Energy Parameters



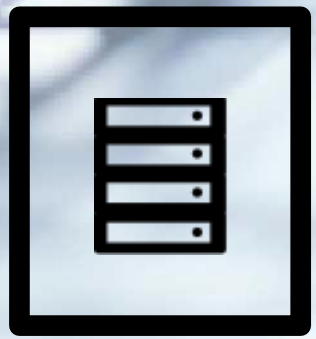
System Use

Two Possibilities

The Platform

On-line Calculation with different Data Storage Options

Full In-Company integration

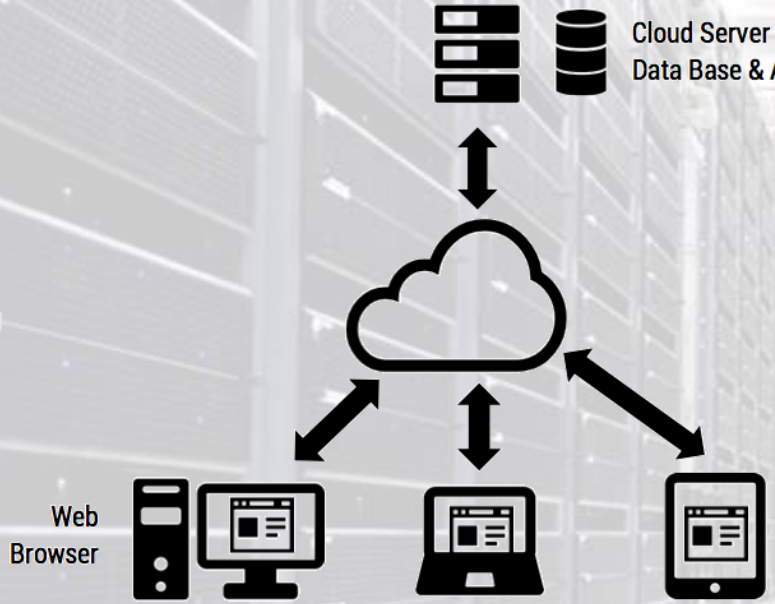


Internal System developed by companies under License Agreement

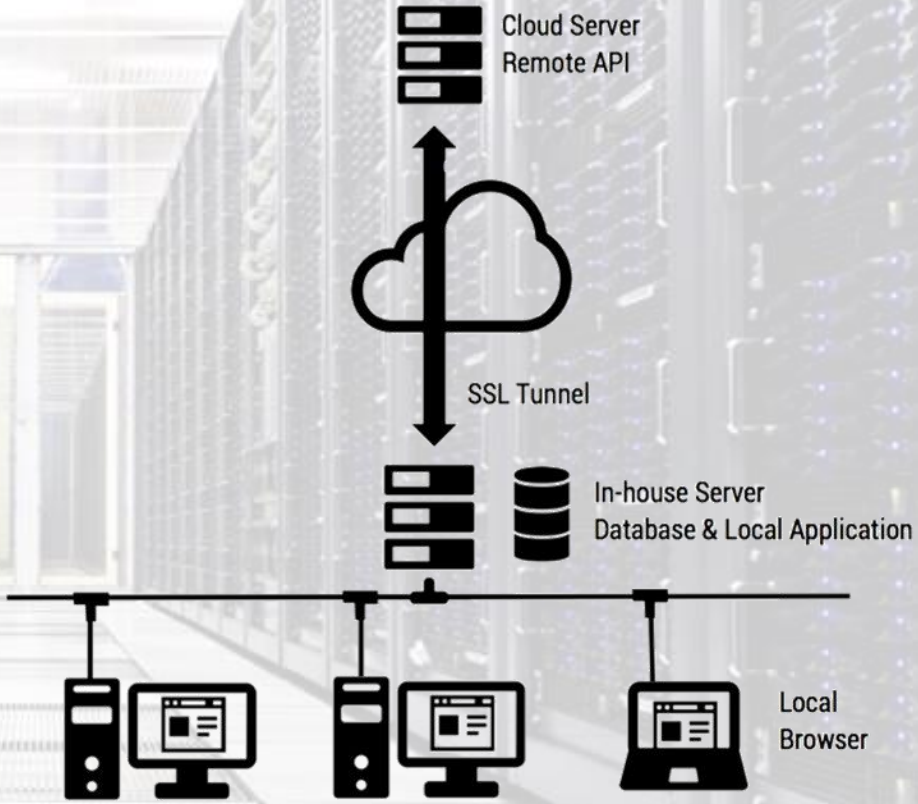
The Platform

Storage Options

Cloud Platform

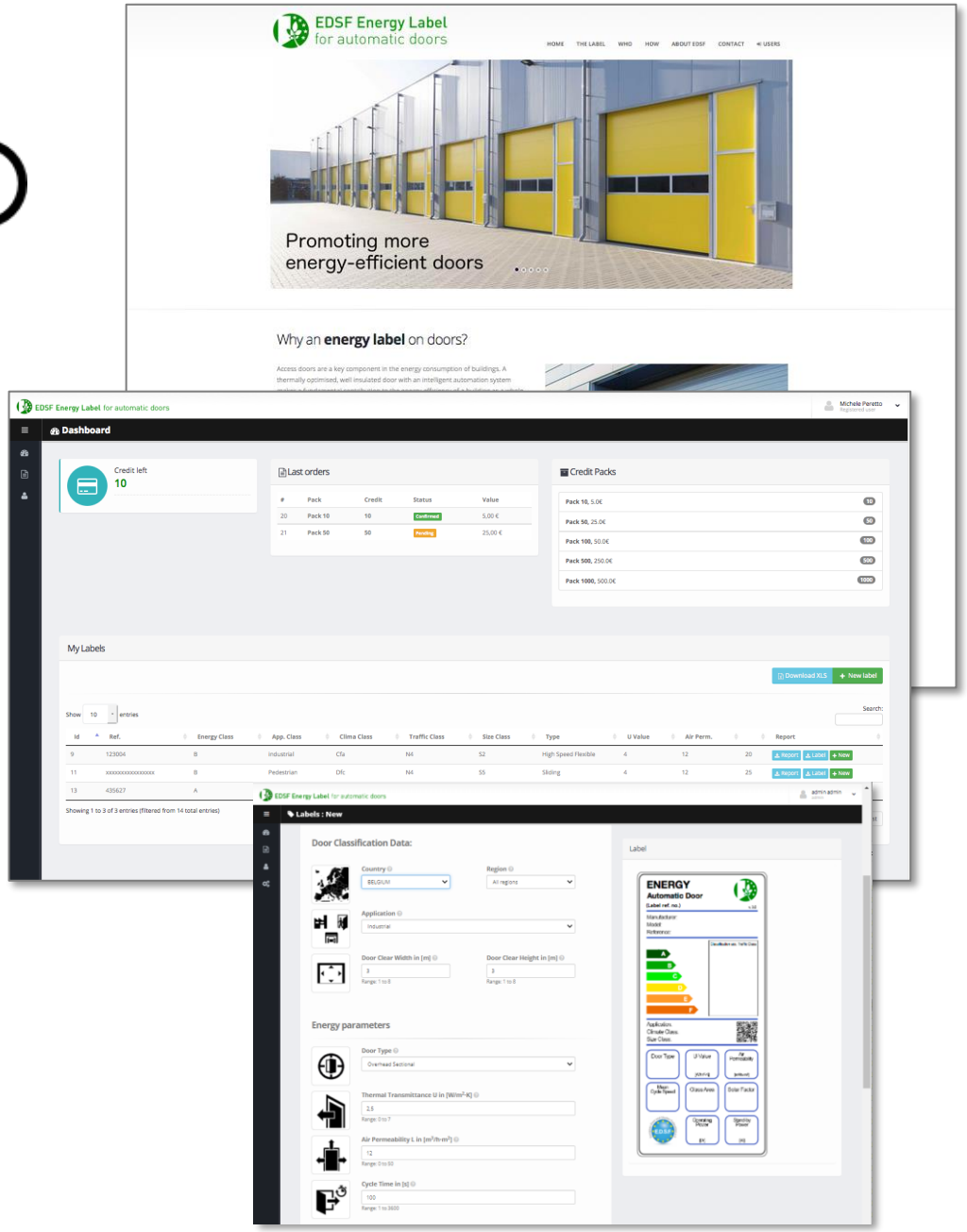


In-House Platform

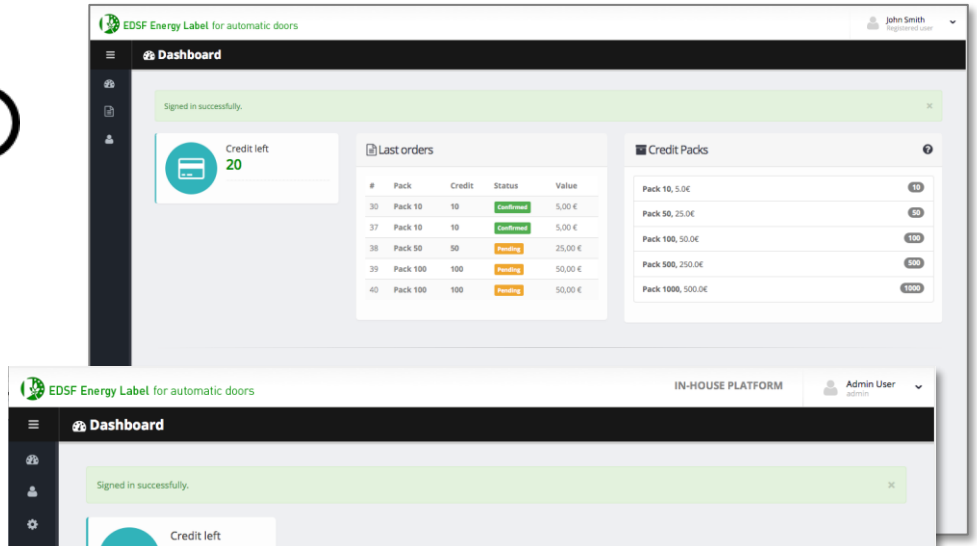


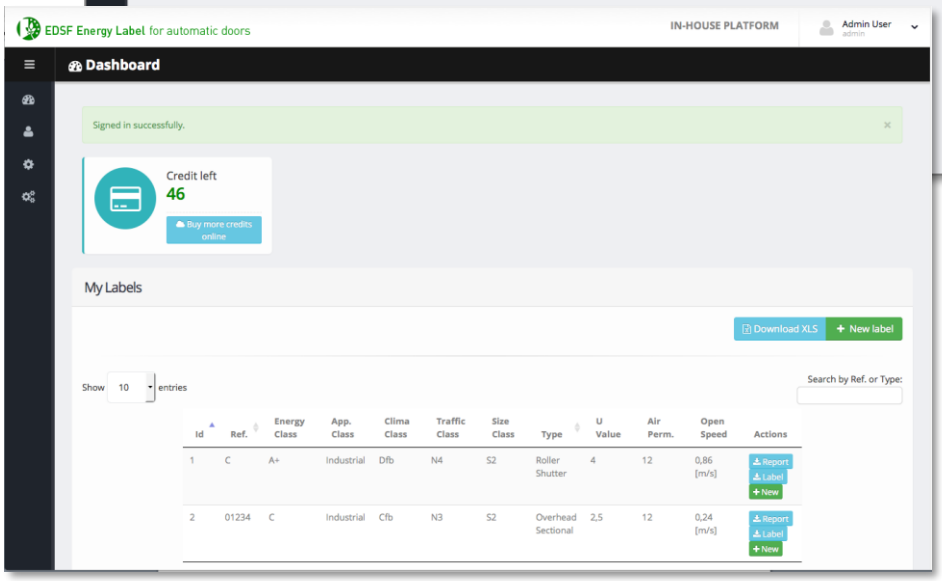
Cloud Platform

- Information Website
- Online Label Platform
  - Calculation form
  - Label Database & Purchasing



In-House Platform

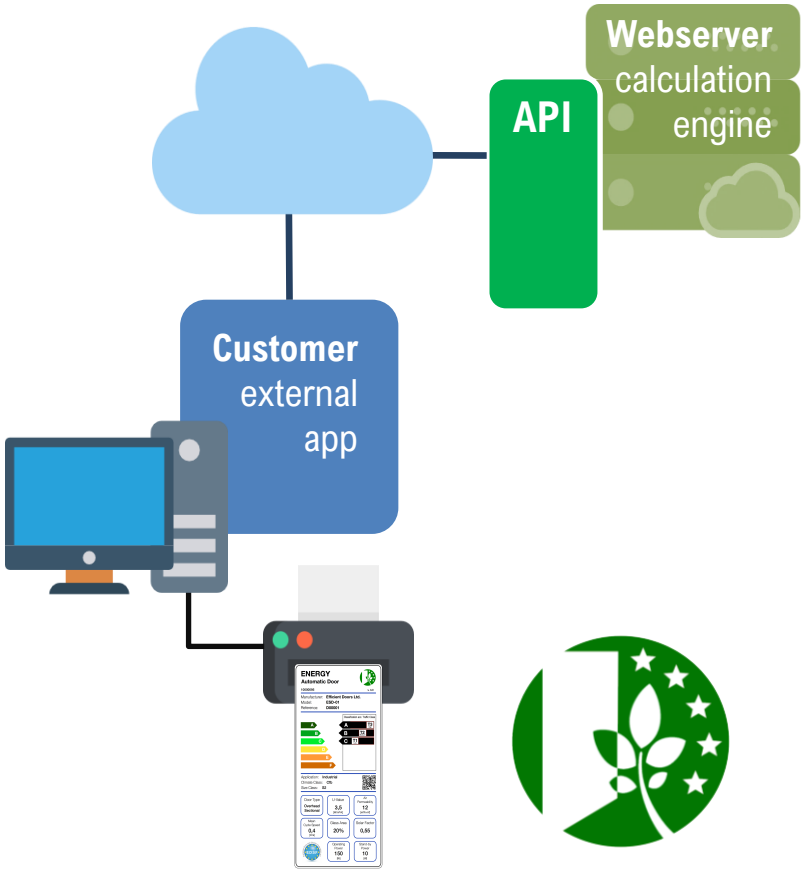




- **Local Label Platform**
  - **Local Database (no cloud data)**
  - **Online calculation & label purchasing**

In-Company Option

- Webserver calculation w/API provided by EDSF under License Agreement
- Integration in internal IT systems allowed (ERP, BIM…)
- Audited by EDSF
- Specific Commercial Scheme



Platform User Profiles

Two Account Types

BASIC Access

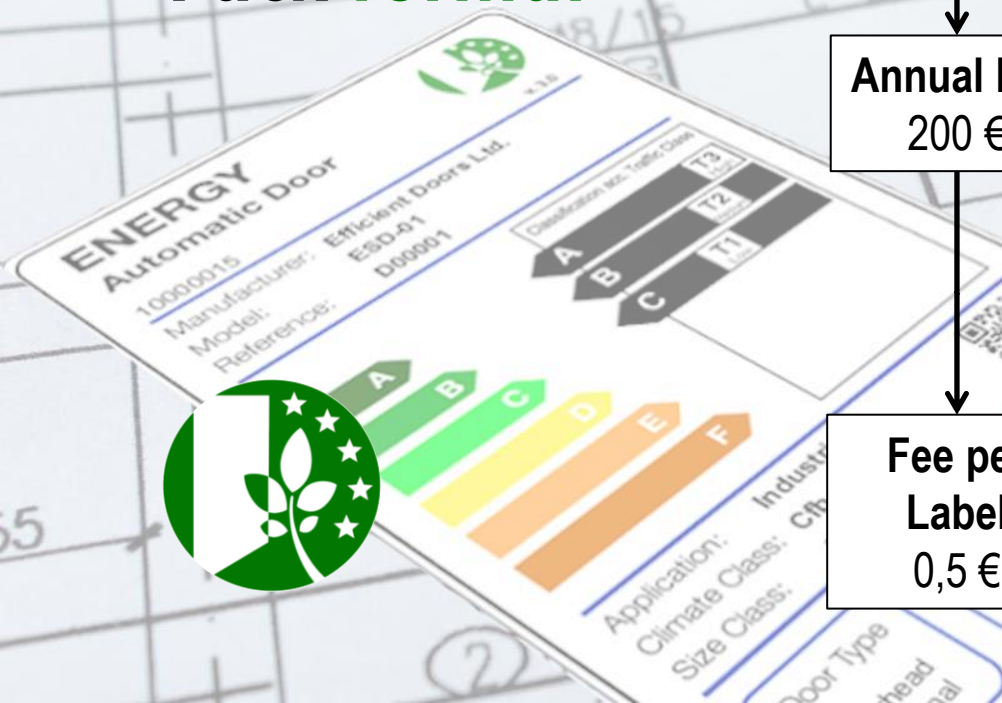
Unlimited **free sample** labels for Sales & Marketing purposes

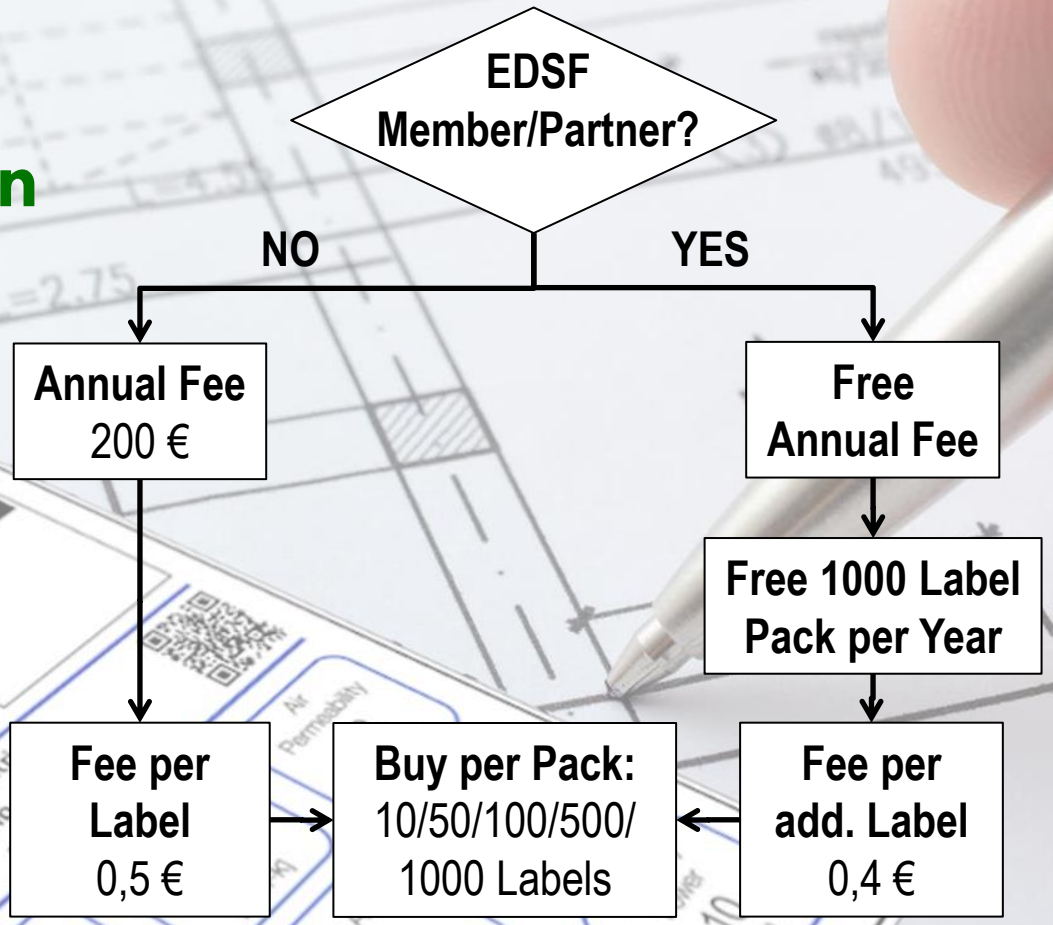
FULL Access

Official **registered** labels for Production purposes, available under EDSF pricing scheme

Commercial Scheme

- Small fees for platform maintenance & support
- Label acquisition in Pack format





Benefits

For Manufacturers

- Communicate clearly to customers about the energy characteristics of the product using a tool which is recognised at European level.
- Comparison between different types of door for the same application, highlighting the products which are more efficient and profitable for the customer.

Benefits

For Builders & Prescribers

- Choice between different manufacturers and types of door depending on the application and desired behaviour.
- Check the correlation between the various parameters related to the thermal efficiency of the door.
- Show the contribution to the energy certification of the whole building.

Benefits

For Owners & Facility Managers

- Prioritise the use of cost effective and efficient products in your business.
- Understand the importance of the doors for the thermal efficiency of your building or premises.

European Door and Shutter Federation, e.V. (E.D.S.F.), a non-profit association, is the umbrella Federation at European level for the national associations of the doors and shutters industries.

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