



SPEEDIER



SPEAKERS



Jo Southernwood

International Energy Research Centre



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Corporación Tecnológica de Andalucía (CTA)



Mariana Fernandez

Sustainable Innovations Europe



Licinio Alfaro

Instituto de Tecnología de la Construcción (ITEC)



SPEEDIER

An introduction to the project

Jo Southernwood

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Mariana Fernandez

Sustainable Innovations Europe



Main Features

30 month project

€2.165M budget

10 Partners, 5 countries

4 Pilot Regions

Ireland:

SMEs in the
manufacturing
sector

Romania:

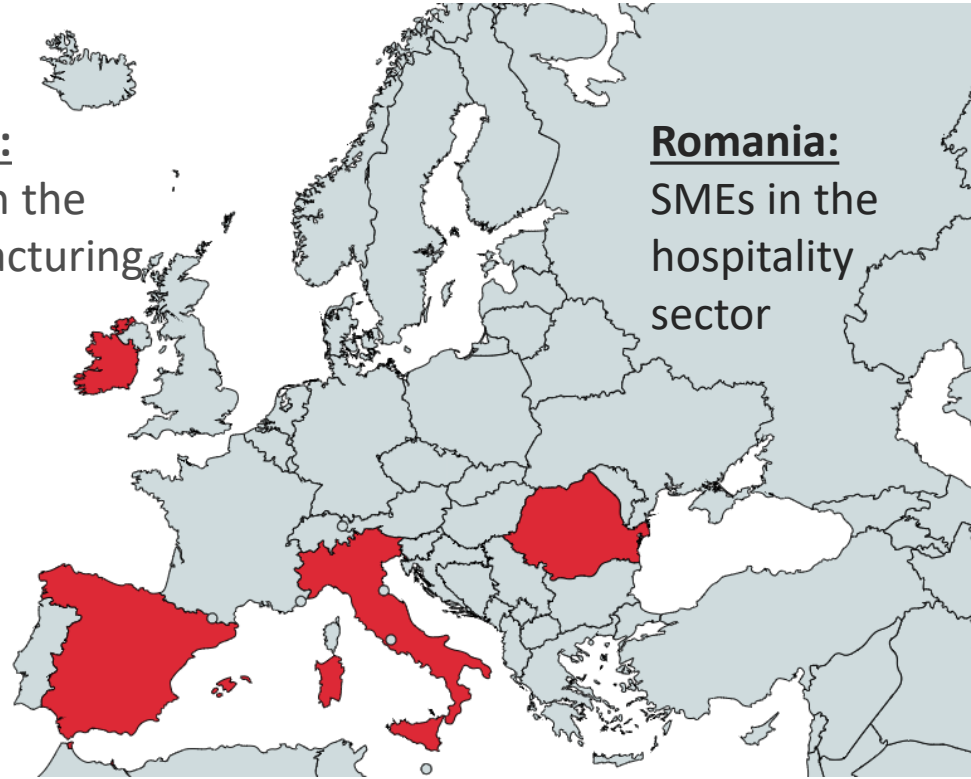
SMEs in the
hospitality
sector

Spain:

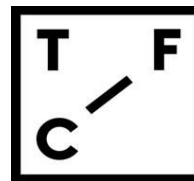
Organisations in the
same business park

Italy:

SMEs from any sector



CONSORTIUM



Setting the Scene

The EU has an energy efficiency target of 32.5% improvement by 2030.

Member States must set up incentives to assist SMEs to undertake energy audits under Article 8 of the Energy Efficiency Directive (EED).

Small and Medium Enterprises (SMEs) account for 99.98% of all enterprises in Europe.

Collectively, SMEs account for 13% of total energy demand in Europe.

SMEs have great potential to contribute to achieving the EU's energy efficiency targets.



**What proportion of SMEs have had an
energy audit in the last 5 years?**

The Baseline

We carried out an online survey of 84 SMEs in 4 countries.

Only 11% of SMEs confirmed they have had an energy audit in the last 5 years.

64% of SMEs have not had an energy audit.

This shows there is a great need for programmes to assist SMEs manage their energy consumption.

Has your business had an energy audit in the last 5 years?



**What proportion of SMEs have
implemented at least one energy
efficiency measure?**

The Baseline

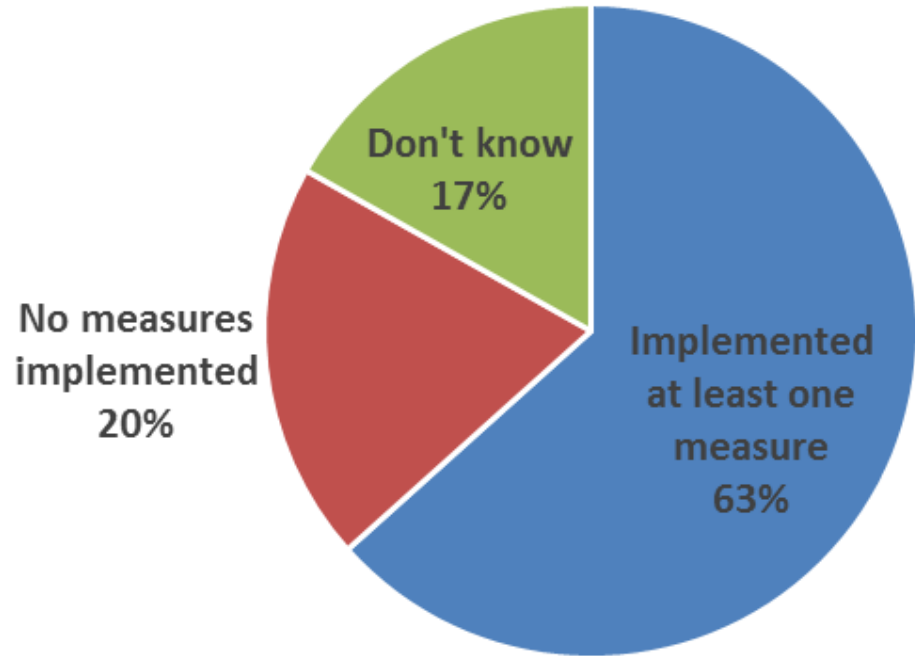
63% of SMEs have taken at least one energy efficiency measure.

LED lighting and upgrades to lighting controls is the most common action taken.

But 37% of SMEs have taken no action on energy efficiency or don't know of any actions.

There is still huge opportunity for energy saving among SMEs .

What proportion of SMEs have implemented energy efficiency measures?



**What is the main challenge that prevents
you from taking action to install energy
efficiency measures?**

The Baseline

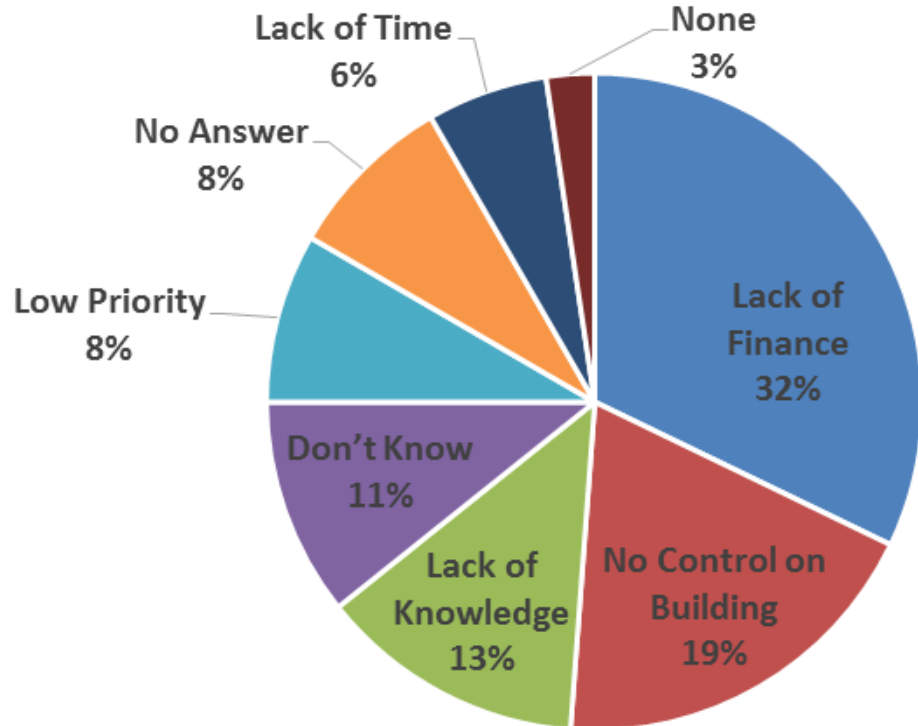
32% of SMEs state lack of finance is the main barrier to implementing energy efficiency.

Only 3% stated that there are no barriers.

Many SMEs rent the building they occupy and have no control over the building services equipment.

Some SMEs lack the knowledge to know which measures to implement.

What is the MAIN challenge preventing installation of energy efficiency measures?



How will SPEEDIER help?

SPEEDIER is an innovative one-stop-shop service that takes an integrated approach to energy management.

SMEs will outsource the energy management of their business to a **SPEEDIER Expert** who provides information, advice, energy auditing and assistance to implement energy efficiency solutions

SPEEDIER is self-financing – savings from low cost measures are ring fenced and reinvested in higher cost measures.

SPEEDIER removes the hassle from energy management and ensures the SME receives tailored advice that suits their business.



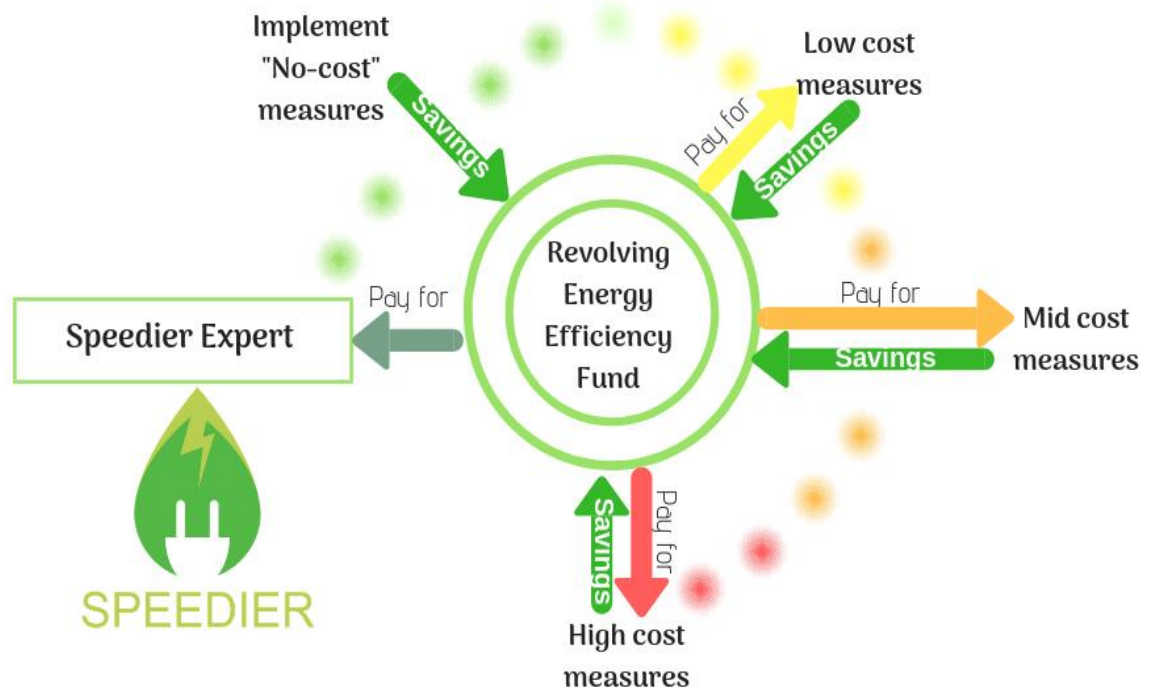
Self-financing

Simple no cost measures are implemented first

The savings are ring fenced and re-invested in low cost measures.

The cycle of saving, ring-fencing and reinvesting is repeated.

The SPEEDIER Expert is paid from the savings meaning it is in their interests to maximise savings.



IMPACTS

8 GWh & 1,280 tCO₂

Average primary energy saving per year

650

Staff to be trained

50 SPEEDIER Experts & 40 SPEEDIER Trainers

Building capacity

Enabling policy

Providing direct means to Members States





SPEEDIER

Sustainable Framework

Germán López

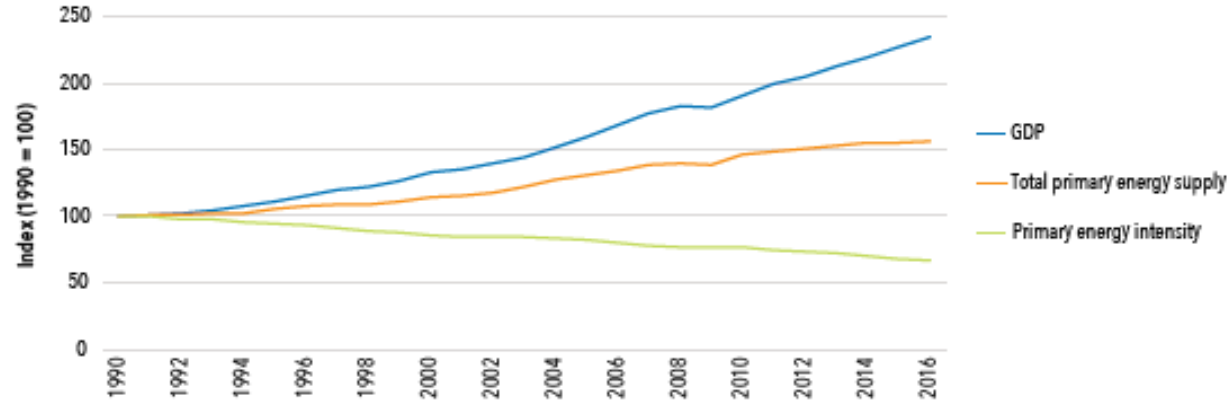
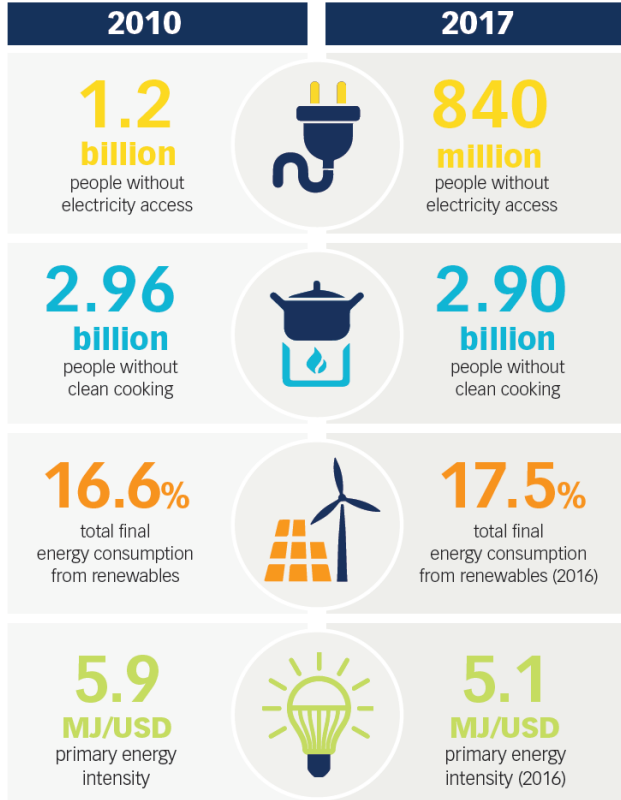
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Sustainable Development Goals (SDG)

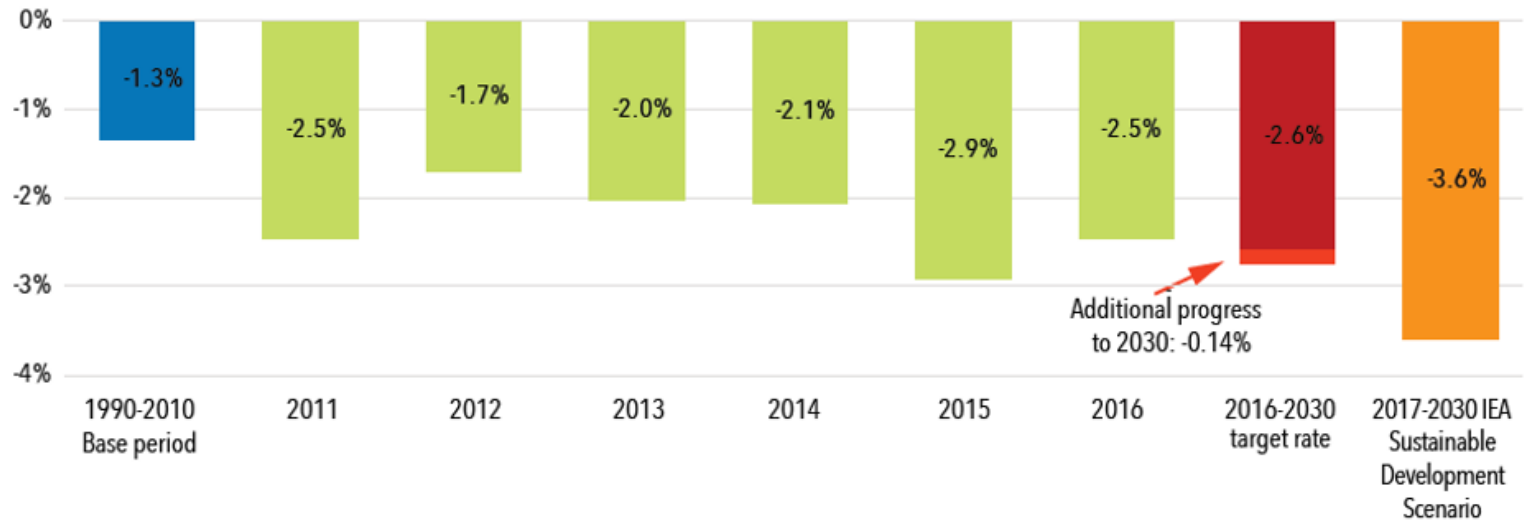


Tracking SDG 7



Source: IEA, UNSD, and WDI.

Tracking SDG 7

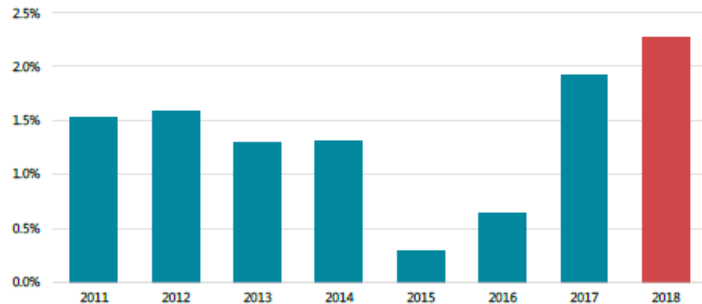


Source: IEA, UNSD, and WDI.

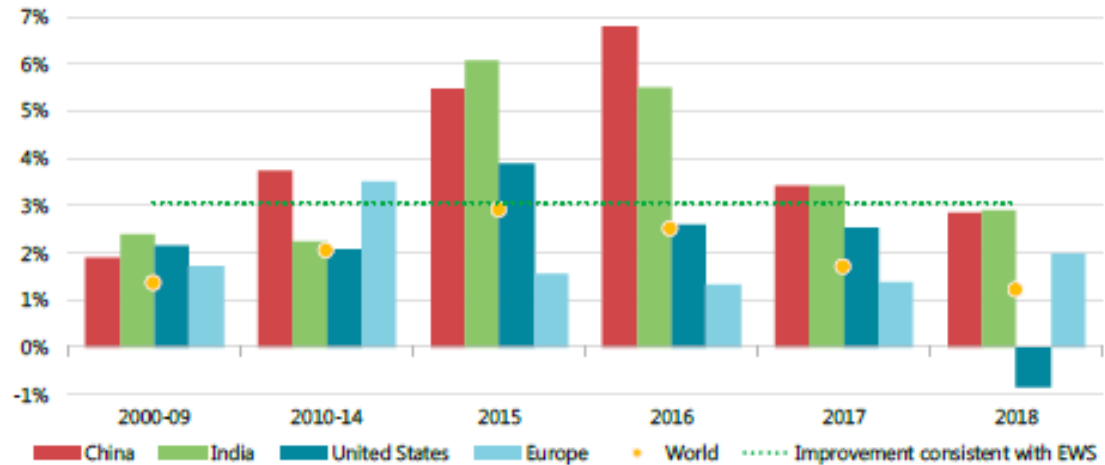
Growth rate of primary energy intensity by period, target rate for 2016-2030 and potential for 2017-2030 in IEA Sustainable Development Scenario

Demand and Energy Intensity

Change in Primary Energy Demand



Primary Energy Intensity Improvement

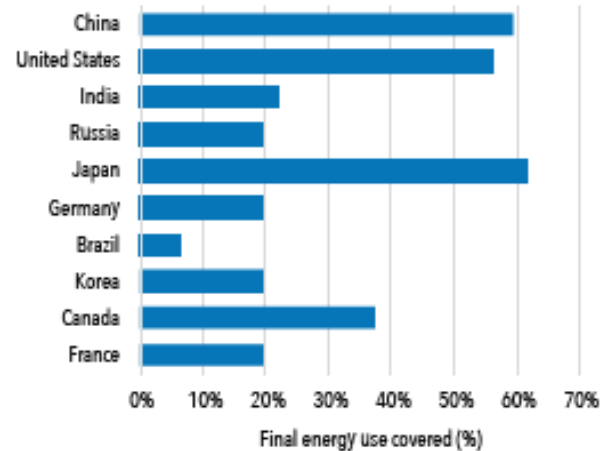
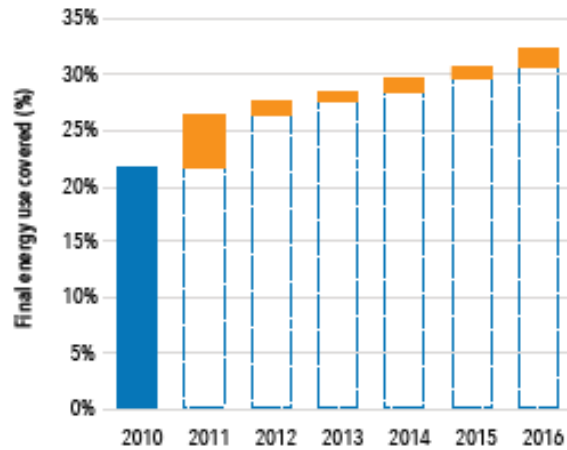


IEA (2019). All rights reserved.

Source: IEA (forthcoming), *World Energy Outlook 2019*; IEA (2019a), *World Energy Balances 2019* (database).

Energy Efficiency Policy

Demand for energy services –space heating and space cooling- is rising.

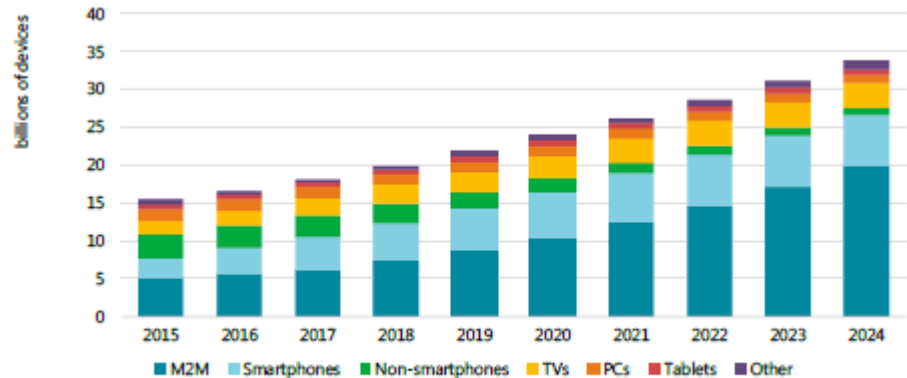


Source: IEA 2018.

Incremental growth in energy use covered by mandatory efficiency policies

Energy Transition

- Energy awareness, Regulation, Incentives, Information
- RES & EE to mitigate CC
(cost & emissions reduction)
- Digitalization: new BM
- R&D (storage, demand-side response, AI, IoT,...)



IEA (2023). All rights reserved.



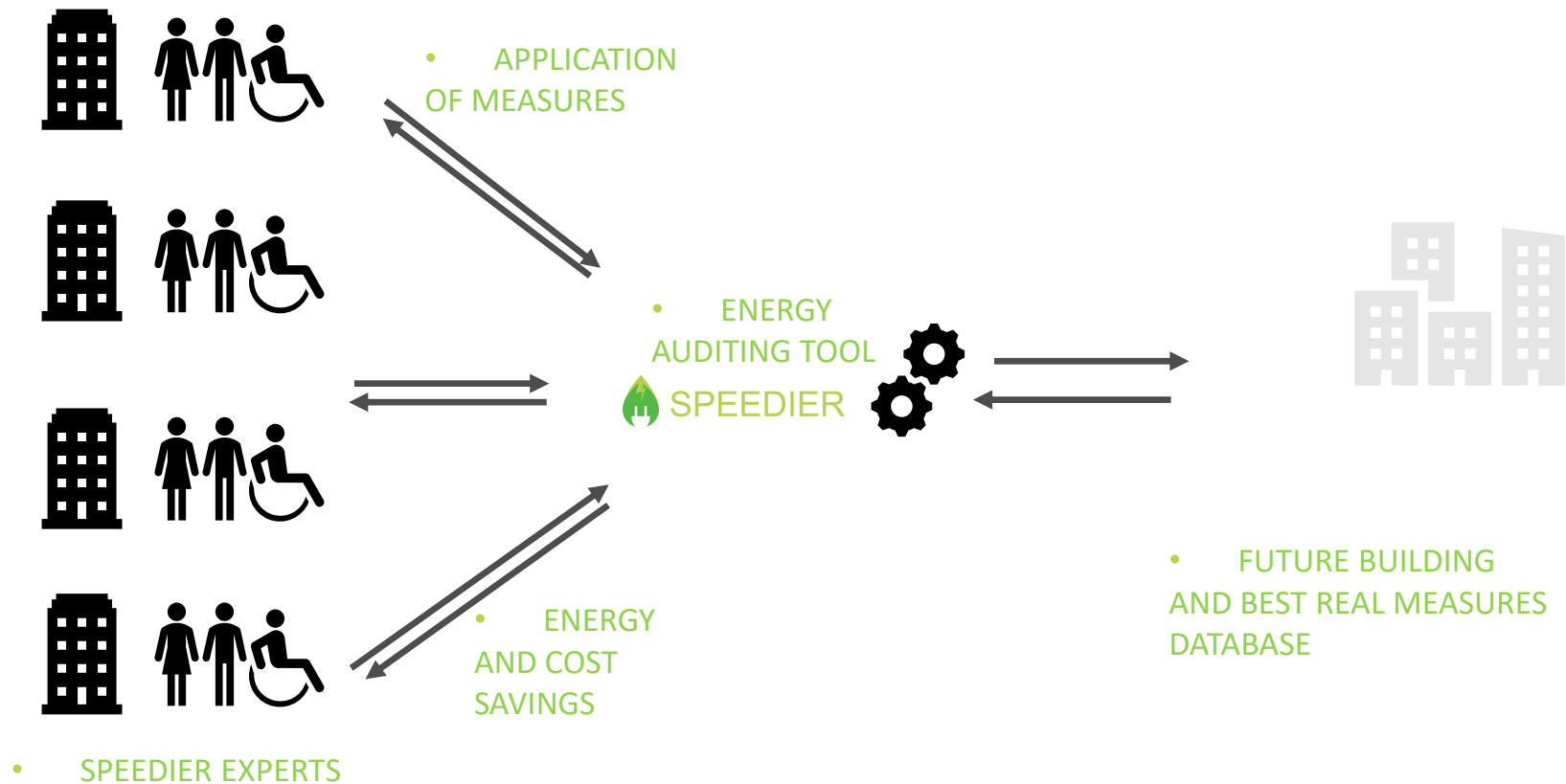
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Energy tool

Licinio Alfaro

Instituto de Tecnología de la Construcción (ITEC)





Speedier Project 01



Username

Project information

Use details

Building Information

ECMs

Periodic report

Ranking

▲ Enveloping elements

▲ Façades

+ Add

A_Main façade

B_Rear façade

C_Side façade 01

D_Side façade 02

▼ Floor / Slabs

▼ Roof / Deck

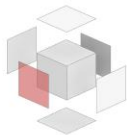
▲ Energy consumption elements

▼ HVAC

▼ Lighting

▼ Domestic hot water

▼ Other equipment



Shape and dimensions

Façade

A_Main façade

Surface

[Surface] m2

Orientation

SE

Technical information

Wall type

Façade wall / party wall

Composition

Double layer composition

Main support

Concrete wall

System

Choose from result options available

Thermal insulation

Yes / No

Choose type

Set thickness

Windows

Wood

Size

Length

Width

Height

Permeability

Absorptivity

Solar shading devices

Solar pattern

Multiplier

Calculate

Speedier Project 01



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Username

Scenarios

Simulation 01
Simulation 02
Simulation 03

Simulation 02

Building systems



Addition of thermal insulation in façade

Addition of thermal insulation in roof

Replace the window glass type by other with better insulation

Lighting



Regular cleaning of Light fittings, windows, and skylights

Labelling of light switches is important so that it becomes clear which switch relates to which light. - You can control only what you know

HVAC



Change the Set Points of Thermostat

Adjust pressure in compressed air systems

Relocate thermostats to areas that aren't affected by local heating or cooling from radiators, or direct sunlight

Other equipment



Check for power management function on office computers, which automatically puts monitors to sleep when not in use

Check if all communal equipment (printers, copiers, vending machines, coffee machine, microwave and kettles) are being turned off or (Printers, copiers, vending machines, coffee machine, microwave and kettles) are being turned off or not at the end of the day.

Already on-course
Selected optimization



kWh/m2
Cost
Annual economical return

Apply simulation

Total energy saving (kW)
Total implementation cost
Annual economical return



Save

Update

Insert electricity cost €
Insert gas cost €
Insert fuel cost €

Speedier Project 01



Username
Company
Project

Check measures
implemented

Energy saving achieved

73%

Project ranking

3/162



Project

Check measures

Area

Activity

86%



Project

Check measures

Area

Activity

75%



Username
Project

Check measures

Area

Activity

73%



Project

Check measures

Area

Activity

62%



Projects ▾

Country ▾

Área (m2) ▾

Activity ▾

Filter

%Reduction

Progress

Any Questions?



THANK YOU!

 speedier-project

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