Project co-financed by the European Regional Development Fund

PrioritEE PLUS

Transferring the PrioritEE Decision Support Tool to public authorities in the MED area

João Pedro Gouveia

CENSE, FCT-NOVA *(jplg@fct.unl.pt)*

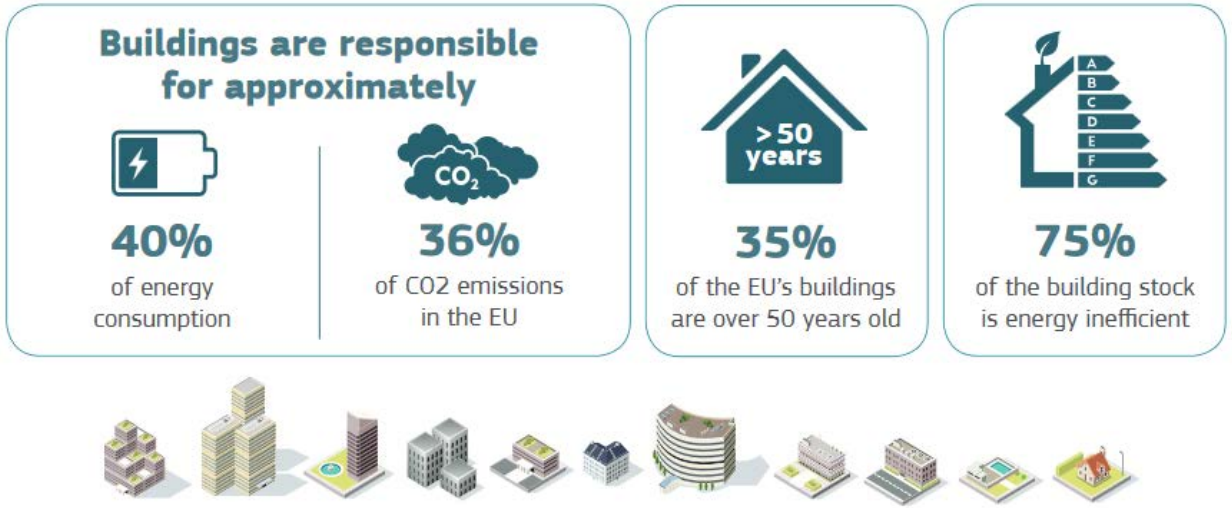
Conferência Arrudalab, 7th June 2021

Outline

- Context
- INTERREG
- The PrioritEE approach
- PrioriTEE PLUS

Climate Change, Energy and Buildings

Energy dependence and an increasing concern about climate change are currently major challenges faced by EU countries. Energy efficiency (EE) is a privileged driver to reduce EU energy and climate vulnerability.

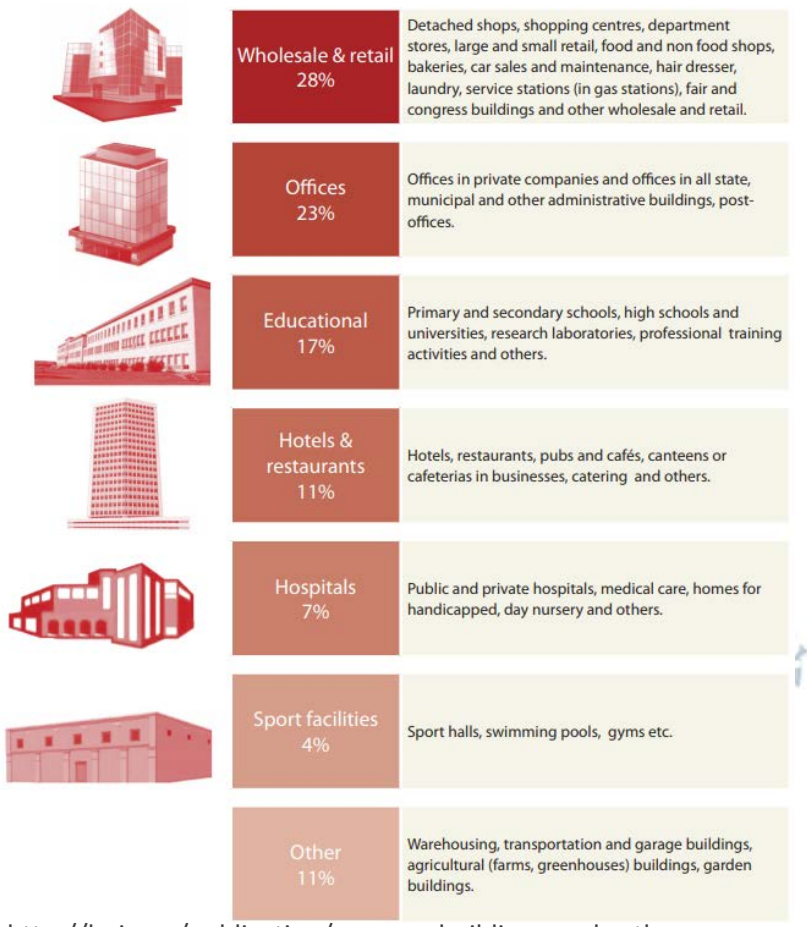


https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans

Only 0.4-1.2% (depending on the country) of the stock is renovated each year.

More renovation of existing buildings has the potential to lead to significant potential *energy savings* (- 5-6% of the EU's total energy consumption and – 5% of CO2 emissions)

The non-residential sector in Europe



http://bpie.eu/publication/europes-buildings-under-the-microscope/

Main Barriers affecting building renovation

http://bpie.eu/publication/europes-buildings-under-the-microscope/

BPIE
Buildings Performance Institute Europe

Barriers

- **Financial**
  - Access to finance
  - Payback expectations / investment horizons
  - Competing purchase decisions
  - Price signals
- **Institutional and administrative**
  - Regulatory & planning issues
  - Institutional
  - Structural
  - Multi-stakeholder issues
- **Awareness, advice and skills**
  - Information barrier
  - Awareness of potential/benefits
  - Skills & knowledge related to building professionals
- **Separation of expenditure and benefit**

CHALLENGES

- **Supply chain**
- **Quality of workmanship**
- **Technical failure**
- **Disturbance**

Public authorities have to manage varied building stocks - need to enhance their institutional capacity in the field of EE and use of RES

(obligations under EPBD and the EED)

13 countries **57** regions in **MED**

10 EU MS **+ 3** IPA countries

122 million inhabitants

860 000 km² ➲ 15 000 km coastal area

Interreg MED priorities

Thematic priority axes

PRIORITY AXIS 1:

Promoting Mediterranean innovation capacities to develop smart and sustainable growth

PRIORITY AXIS 2:

Fostering low carbon strategies and energy efficiency in specific MED territories: cities, islands and rural areas

PRIORITY AXIS 3:

Protecting and promoting Mediterranean natural and cultural resources areas

Territorial priority axis

PRIORITY AXIS 4:

Enhancing Mediterranean Governance

Axis 2 – Low Carbon Economy

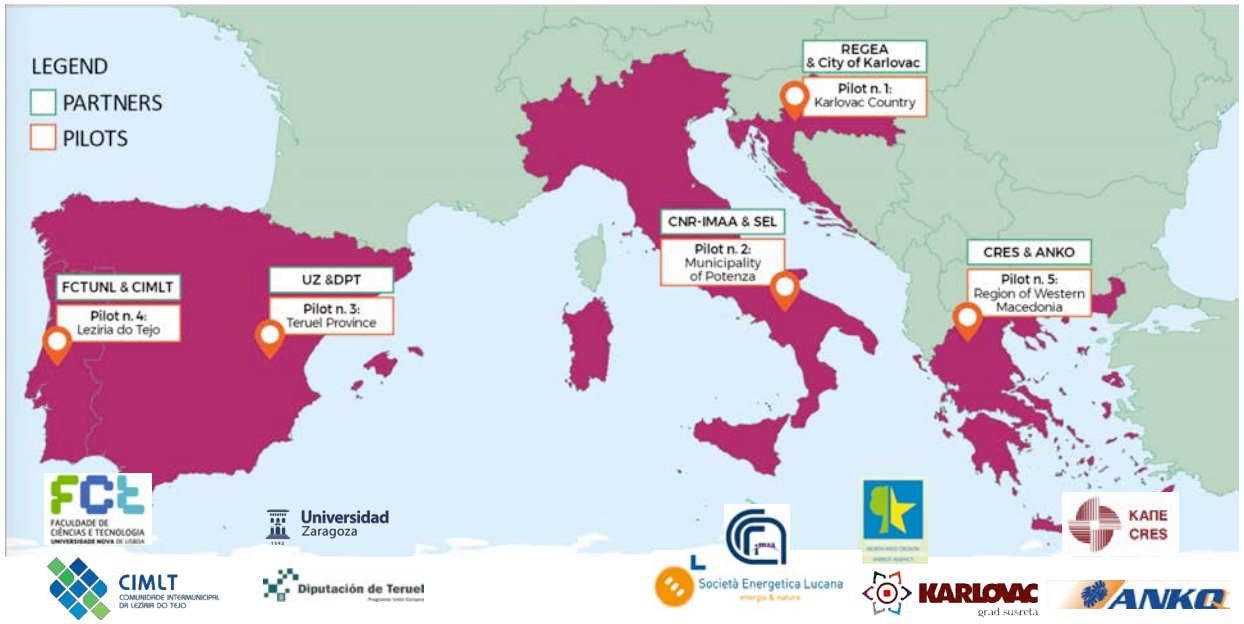
Efficient Buildings	To raise capacity for better management of energy in Public Buildings at transnational level
Result Indicator	Share of regional, subregional and local energy efficiency plans including adapted measures for public building stock

- Tools to manage and monitor energy consumption in public buildings
- Strategies to develop energy management plans for public buildings
- Targets participating in capacity building activities
- Territories engaged in developing energy efficiency plans/strategies

PrioritEE in brief

WHY AND HOW

The overall aim of PrioritEE is to strengthen the policy making and strategic planning competences of local and regional public authorities in the energy management of public buildings in five Mediterranean countries: Italy, Portugal, Spain, Greece and Croatia.



KEY FIGURES

- Full title: Prioritize energy efficiency measures in public buildings: a decision support tool for regional and local public authorities

2.2 M€ Budget

30 months

13 Partners

5 Pilots

João Pedro Gouveia
PrioritEE PLUS – Conferência ARRUDALAB, 07/06/2021

The PrioritEE toolbox

WHAT IS THE BEST VALUE FOR MONEY?
or
WITH YOUR AVAILABLE BUDGET WHERE SHOULD YOU INVEST TO PROMOTE EE in MPB & LOWER ENERGY COSTS?

What for?

To promote EE and the use of RES in MPB and prioritize municipal Investments.

- transparent and objective evaluation of the **investment opportunities** (energy and CO2)
- **multiple pathways** available for local public administrators to **achieve EE saving targets**
- **list of interventions per building** labelled with an index of priority

Structure of the analytical database

Analytic database of EE/RES technical measures

PrioritEE PLUS

PrioritEE

PrioritEE Analytical Database Structure - Energy Efficiency and Renewable Energy Sources Measures

Buildings Typologies

Cultural Buildings

Educational Buildings

Office Buildings

Sports Facilities

Social Centers

Measures for the Different End Uses

- Building Structure/ Passive measures
- Climatization and Ventilation
- Water Heating
- Lighting
- Cooking
- Other Electric Equipment
- Solar Photovoltaic Systems
- Micro Wind Turbines

Country

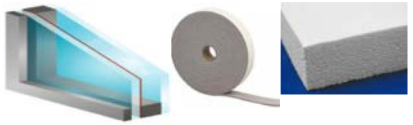
Analytic database of EE/RES technical measures

Database (per energy use)

Building Structure/ Passive measures

30 Different Measures

13 Characterization Indicators



Cooking

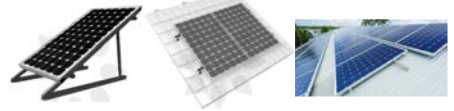
19 Different Measures

15 Characterization Indicators

Solar Photovoltaic Systems

11 Different Measures

11 Characterization Indicators



Climatization and Ventilation

75 Different Measures

12 Characterization Indicators

Lighting

12 Different Measures

17 Characterization Indicators

Micro Wind Turbines

8 Different Measures

21 Characterization Indicators

Water Heating

12 Different Measures

20 Characterization Indicators

Just an example (lighting)

Analytic database of EE/RES technical measures

Measure Title	Measure Code	Measure Description/ Typical Applications
Energy efficient lighting in non-residential buildings (Fluo T5 bulb with electronic ballast)	M.L.1	Offices, commercial buildings, and low bay industrial uses (below 5m)
Energy efficient lighting in non-residential buildings (Fluo T8 bulb with electronic ballast)	M.L.2	Offices, commercial buildings, and low bay industrial uses (below 5m)
Energy efficient lighting in non-residential buildings (High Pressure Sodium)	M.L.3	High bay areas, flood lighting, street lighting, etc., that need to be lit for a long periods

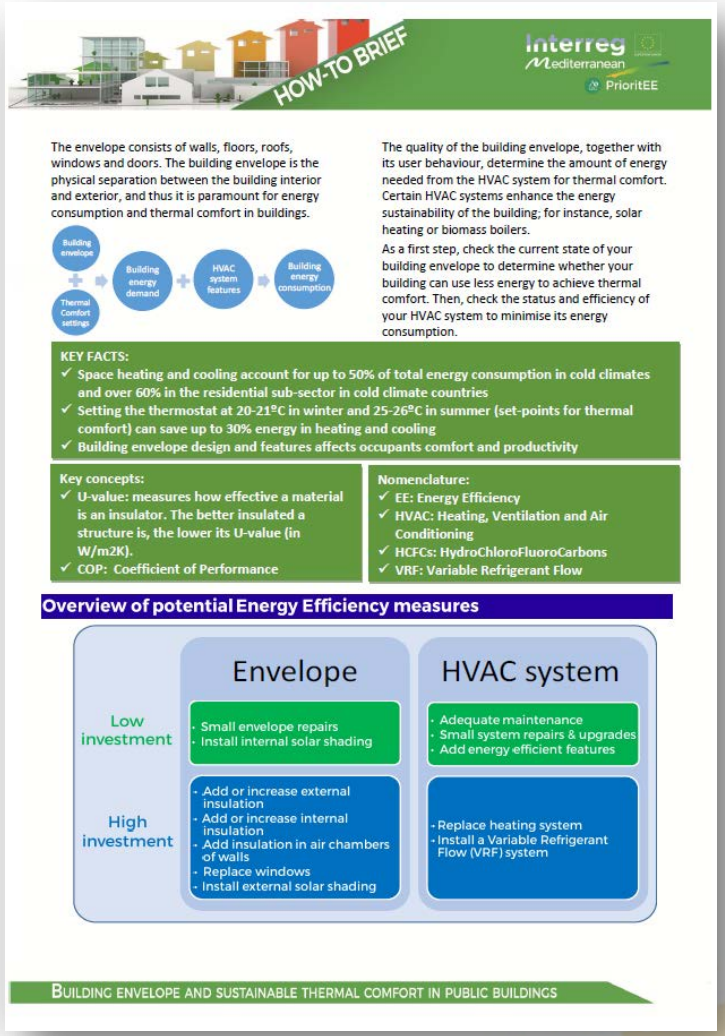
Measure Title	Measure Code	Measure Description/ Typical Applications	Country	Building Typology	Building Sub Typology	Fuel Type	Typical Size (W)	Colour Temperature (K)	Colour Rendering Index (CRI)	Energy Efficiency (Lm/W)	Lifetime (hours)	Average Annual Use (hours/year)	Typical Illuminated Area (m2)	Cost of Measure (Eur/kilo-lumen)	Cost of Measure (Eur/unit)	O&M Costs (Eur/kWh)	Cost of Measure (Eur/W)	Cost of Measure (Eur/m2) Workspace	Cost of Measure (Eur/m2) Other	Examples of Equipment	Data Sources
Energy efficient lighting in non-residential buildings (Fluo T5 bulb with electronic ballast)	M.L.1	Offices, commercial buildings, and low bay industrial uses (below 5m)	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	6-80	2800-6500	80-85	72	32000	750		N/A	6,50			11,50	6,50		IEA ETSAP (2012); REGEA Tool (2017)
Energy efficient lighting in non-residential buildings (Fluo	M.L.2	Offices, commercial buildings, and low bay industrial uses (below 5m)	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	16-70	2700-6500	80-85	80	36000	750		N/A	16,50						IEA ETSAP (2012); REGEA Tool (2017)
efficient in non-ential gs (High Sodium)	M.L.3	High bay areas, flood lighting, street lighting, etc., that need to be lit for a long periods	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	30-400	2000	25	84	20250	750		N/A	16,50						IEA ETSAP (2012); REGEA Tool (2017)
efficient in non-ential gs (Metal Lamps)	M.L.4	Commercial uses with good colour rendering; high bay areas (indoor space with high ceiling), floodlighting, external lighting,	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	70-400 (Up to 1000 W available)	3000-6000	65-96	88,5	13000	750		N/A	30,50						IEA ETSAP (2012); REGEA Tool (2017)
efficient in non-ential gs (LED I (<40))	M.L.5	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	<40	127,5	31000	750		13,9	N/A			32,00	22,00		IEA ETSAP (2012); CLTC (2015); REGEA Tool (2017)
efficient in non-ential gs (LED CRI (41-5))	M.L.6	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	41-75	118,5	31000	750		20,8	N/A			32,00	22,00		IEA ETSAP (2012); CLTC (2015); REGEA Tool (2017)
efficient in non-ential gs (LED 1 (76-90))	M.L.7	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	76-90	107,1	31000	750		32,7	N/A			32,00	22,00		IEA ETSAP (2012); CLTC (2015); REGEA Tool (2017)
efficient in non-ential gs (LED h CRI (91-00))	M.L.8	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	91-100	91,6	31000	750		52,8	N/A			32,00	22,00		IEA ETSAP (2012); CLTC (2015); REGEA Tool (2017)
efficient in non-ential gs (OLED I (<40))	M.L.9	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	<40	122,6	31000	750		19	N/A			32,00	22,00		IEA ETSAP (2012); REGEA Tool (2017)
efficient in non-ential gs (OLED CRI (41-5))	M.L.10	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	41-75	107,7	31000							32,00	22,00		IEA ETSAP (2012); REGEA Tool (2017)
efficient in non-ential gs (OLED 1 (76-90))	M.L.11	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	76-90	91,6	31000							32,00	22,00		IEA ETSAP (2012); REGEA Tool (2017)
lighting in non-residential buildings (OLED very high CRI (91-100))	M.L.12	A variety of different applications	Greece; Portugal; Spain; Croatia; Italy	Cultural Buildings; Schools; Office Buildings, Sports Facilities; Social Centers; Swimming Pools	Small; Large	Electrical Energy	1-16	2800-6500	91-100	70	31000							32,00	22,00		IEA ETSAP (2012); REGEA Tool (2017)

"How-to briefs" on best practices

How-to Briefs

1. Engaging the stakeholders
2. Creating a Sustainable Energy Action Plan
3. Innovative financing of energy efficiency measures in public buildings
4. Roof-top uses for more efficient public buildings
5. Building envelope and sustainable thermal comfort in public buildings
6. Promoting behavioural changes for increased energy efficiency in public buildings
7. Centralised energy management and ICTs in public buildings

How-to briefs



...

How-to Briefs

"How-to briefs" on best practices

ENGAGING STAKEHOLDERS 	Uključivanje dionika	Ενθαρρύνοντας τη συμμετοχή των ενδιαφερόμενων μερών στη Βελτίωση της ενεργειακής απόδοσης των δημόσιων κτιρίων	Il coinvolgimento dei portatori d'interesse per il miglioramento dell'efficienza energetica degli edifici pubblici	Envolvimento de Stakeholders	Involucrando a los grupos de interés
CREATING A SUSTAINABLE ENERGY ACTION PLAN 	Izrada održivog akcijskog plana energetske učinkovitosti	Δημιουργία αειφόρων ενεργειακών σχεδίων δράσης	Redazione di un piano d'Azione per l'energia sostenibile	Desenvolvimento de um plano de ação de energia sustentável	Creación de un plan de acción para la energía sostenible en edificios públicos
INNOVATIVE FINANCING OF ENERGY EFFICIENCY MEASURES IN PUBLIC BUILDINGS 	Inovativno financiranje mjera energetske učinkovitosti u javnim zgradama	Καινοτόμες χρηματοδοτήσεις μέτρων ενεργειακής απόδοσης σε δημόσια κτίρια	Finanziamento innovativo delle misure di efficienza energetica negli edifici pubblici	Financiamentos inovadores para medidas de eficiência energética em edifícios públicos	Financiación innovadora de medidas de eficiencia energética en edificios públicos
ROOF-TOP USES FOR MORE EFFICIENT PUBLIC BUILDINGS 	Iskorištavanje krovova za veću energetsku učinkovit	Χρήσεις οροφής για εξοικονόμηση ενέργειας σε δημόσια κτίρια		Multiplicidade de usos nos telhados para Edifícios Públicos mais sustentáveis	Usos de las cubiertas para mejorar la eficiencia energética de los edificios públicos
BUILDING ENVELOPE AND SUSTAINABLE THERMAL COMFORT IN PUBLIC BUILDINGS 	Ovojnica zgrade i održiva toplinska udobnost u javnim zgradama	Κέλυφος και θερμική άνεση σε δημόσια κτίρια	Interventi sull'involucro edilizio per la riqualificazione energetica ed il comfort termico negli edifici pubblici	Envolvente do Edifício e ConfortoTérmico Sustentável em Edifícios Públicos	Envolvente del edificio y confort térmico sostenible en edificios públicos
CENTRALISED ENERGY MANAGEMENT AND ICT IN PUBLIC BUILDINGS 	Centralni sustavi upravljanja energijom i ICT u javnim zgradama	Κεντρική διαχείριση ενέργειας και τεχνολογίες πληροφορικής σε δημόσια κτίρια	Gestione centralizzata dell'energia e ICT negli edifici pubblici	Gestão energética centralizada e tic em edifícios públicos	Gestión centralizada de energía y TIC en edificios públicos
PROMOTING BEHAVIOURAL CHANGES FOR INCREASED ENERGY EFFICIENCY IN PUBLIC BUILDINGS 	Promicanje promjena navika za povećanu energetsku učinkovitost u javnim zgradama	Προγράμματα αλλαγής συμπεριφοράς για μεγαλύτερη ενεργειακή απόδοση στα δημόσια κτίρια	Promuovere i cambiamenti comportamentali per aumentare l'efficienza energetica negli edifici pubblici	Promovendo mudanças comportamentais para aumentar eficiência energética em edifícios públicos	Como promover los cambios de comportamiento para mayor eficiencia energética en edificios públicos

João Pedro Gouveia
PrioritEE PLUS – Conferência ARRUDALAB, 07/06/2021

https://prioritee.interreg-med.eu/toolbox/how-to-briefs/

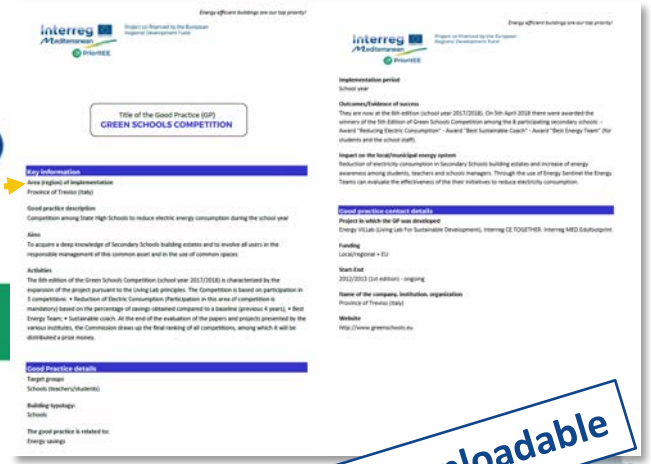
> Good Practices for changing behaviour

- 24 practices
- Schools, residence halls, City Hall, Sports Centre, Fire fighters buildings, social housing
- Schools (teachers/students); Householders; community, social housing tenants; Citizens, Local authorities
- Competitions, games, advices, information campaigns, economic incentives, monitoring systems, Voluntary certification scheme, networks and partnerships (…)

Behavioural Change Good Practices

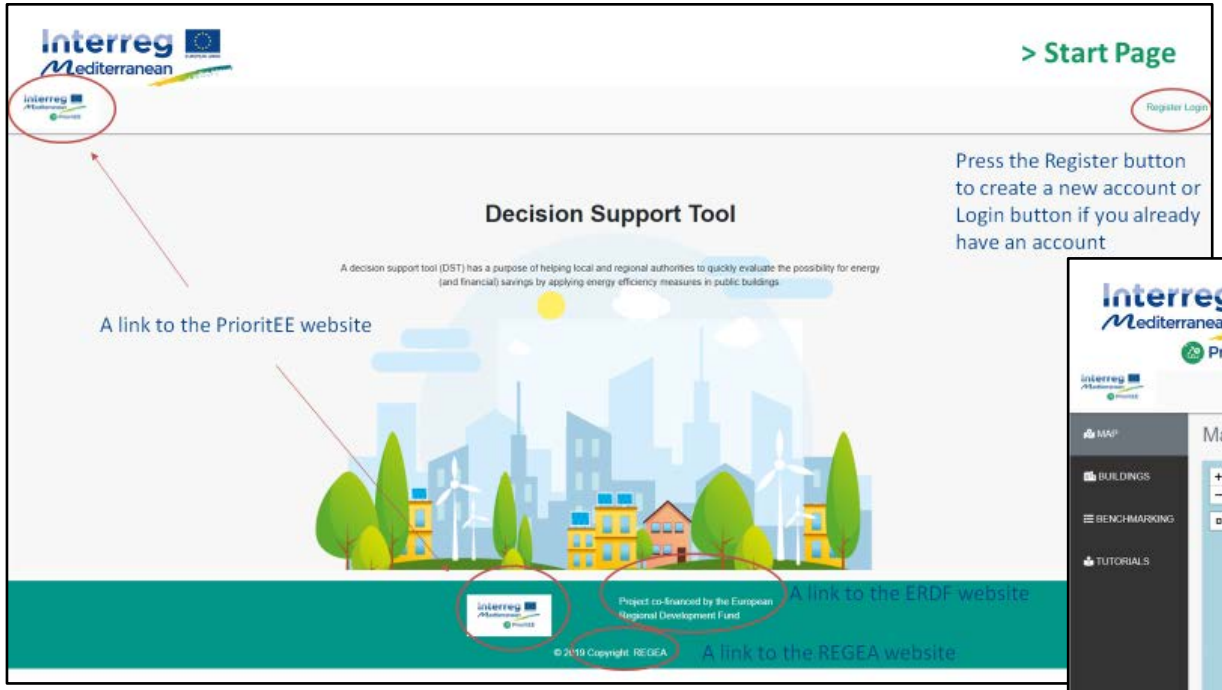
Synergie CTE | Account | Contact | Search | EN | Menu

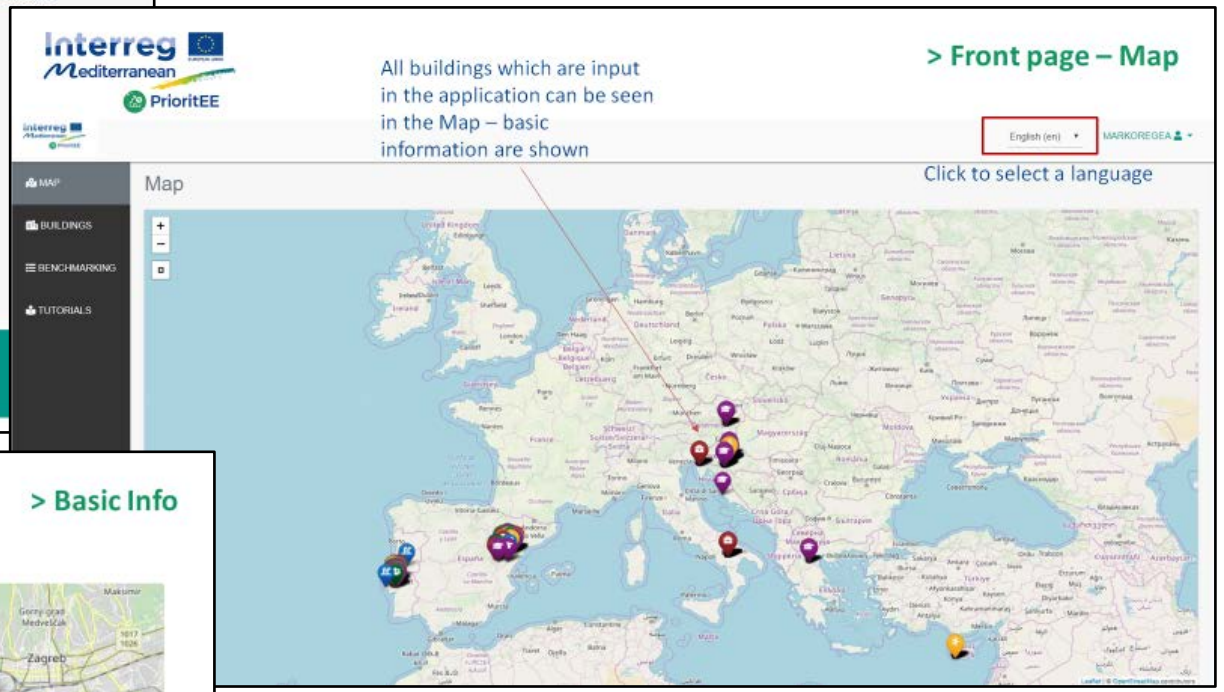
TITLE	DESCRIPTION	TARGET GROUP	TYPOLOGY
GREEN SCHOOLS COMPETITION	Competition among State High Schools to reduce electric energy consumption during the school year	Schools (teachers/students)	Schools
THE POD	Digital schools programme to engage children in the sustainable use of energy	Schools (teachers/students)	Schools
SCHOOL CARBON REDUCTION PROGRAMME	Providing in-school advice and support to reduce their energy use (audits, etc.)	Schools (teachers/students)	Schools
DORM ENERGY EFFICIENCY PROJECT (DEEP)	Integrated energy-management and behavior-change program for University residence halls via training, showcase, etc.	Schools (university students)	Residence halls

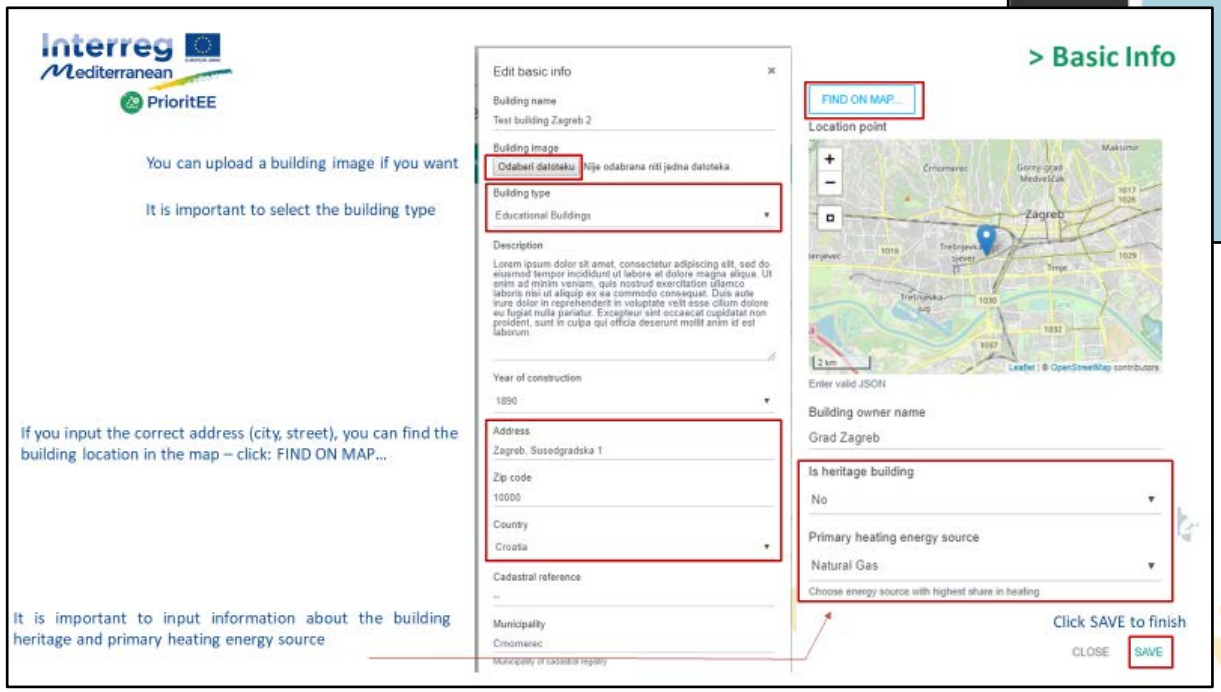


pdf documents downloadable

> Decision-Support Tool







DST for comparing a portfolio of EE/RES interventions

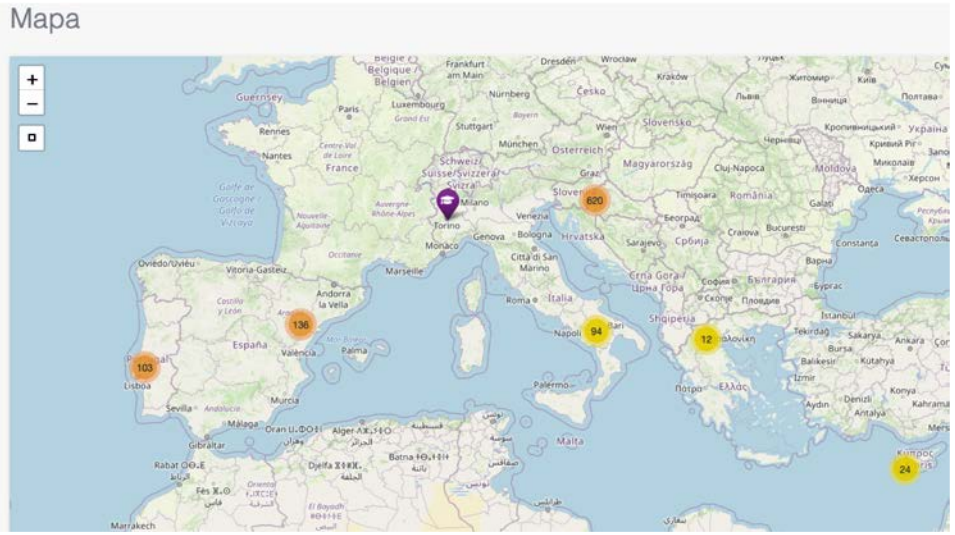
> Decision Support Tool

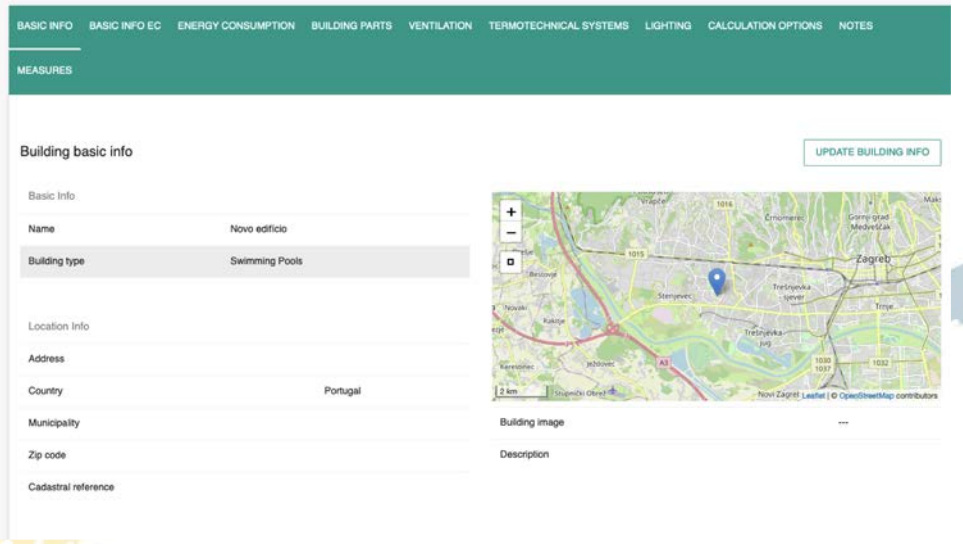
Translated into 6 languages (English, Italian, Portuguese, Greek, Croatian and Spanish)

Near 1000 municipal public buildings included.

Inputs for each building:

- *Basic Information*
- *Energy Performance Certificate data*
- *Energy Consumption*
- *Building Components*
- *Ventilation*
- *Technical Systems*
- *Lighting*
- *Calculation options (prices, subsidies)*



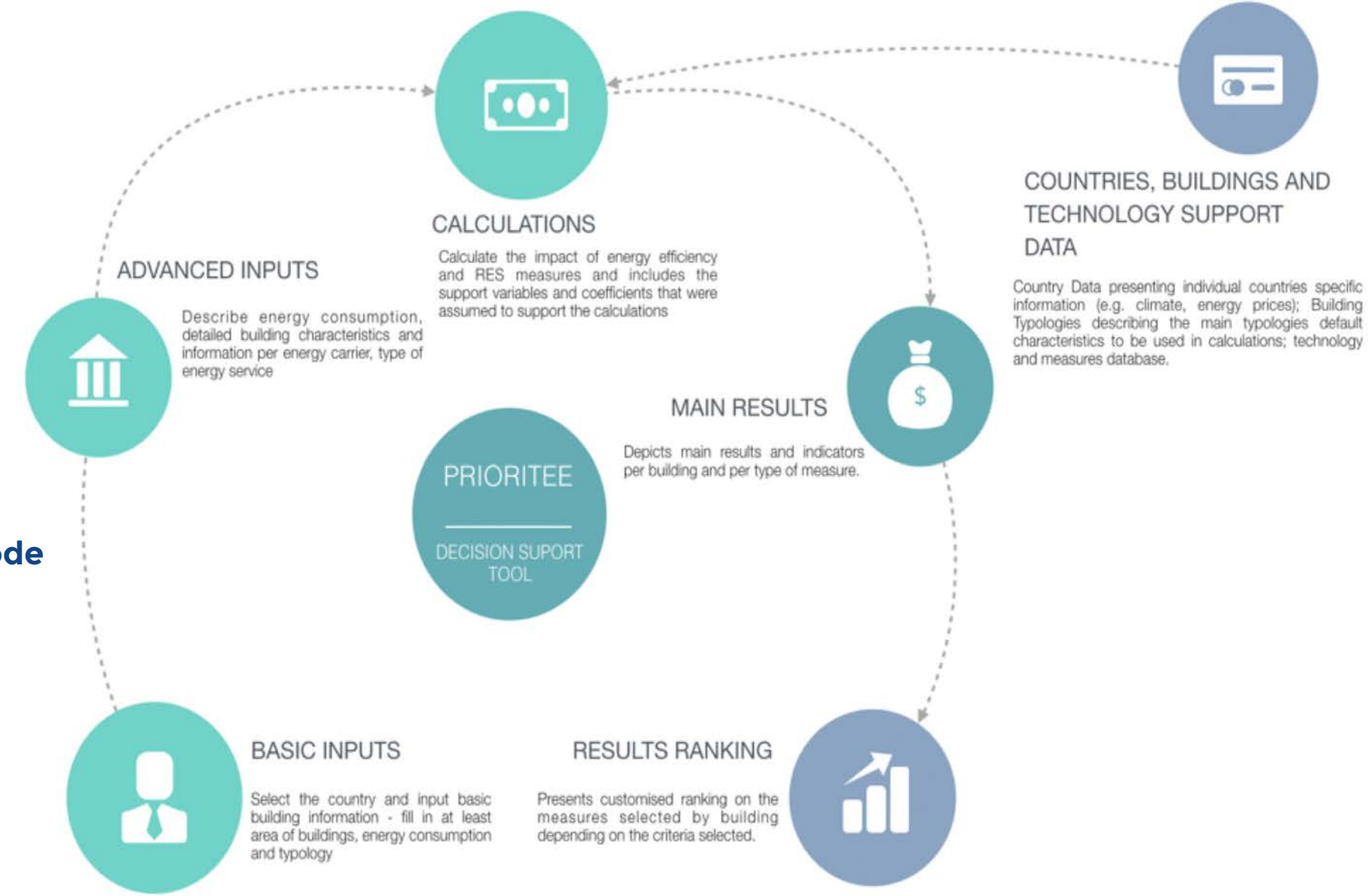


> Main structure of the DST

(i) two levels of inputs (basic and advanced)

(ii) a country-specific data mode

(iii) MPB building typologies based-structure.



Representative building typologies for each country

Simple to obtain information needs:

- Area
- Occupation schedules
- Number of users
- Construction type (insulation)
- Total energy consumption per energy carrier
- Split of energy consumption per energy service

Making use of energy certificates and energy audits data

For the following energy services:

- Lighting
- Space Heating
- Space Cooling
- Hot water
- Solar PV

> Decision Support Tool

Dados detalhados do edifício: Palácio João Afonso

INFORMAÇÃO BÁSICA DO EDIFICIO | INFORMAÇÃO BÁSICA DO CERTIFICADO ENERGÉTICO | CONSUMO DE ENERGIA | COMPONENTES DO EDIFICIO | VENTILAÇÃO | SISTEMAS DE CLIMATIZAÇÃO | ILUMINAÇÃO | OPÇÕES DE CÁLCULO

NOTAS | MEDIDAS DE EFICIÊNCIA ENERGÉTICA

Definição de Informações Básicas do Edificio

ATUALIZE INFORMAÇÃO DE EDIFÍCIO

Informação básica	
Nome	Palácio João Afonso
Tipologia de Edificio	Escolas

Informações de localização	
Endereço	Rua Miguel Bombarda
País	Portugal
Município	Santarém
Código postal	
Referência no Cadastro	

Outro	
Ano de Construção	2009
Nome do proprietário do edificio	Município de Santarém
Edifício Histórico	Não

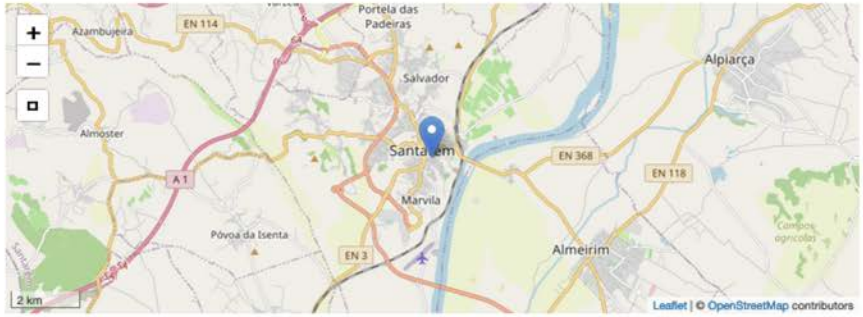


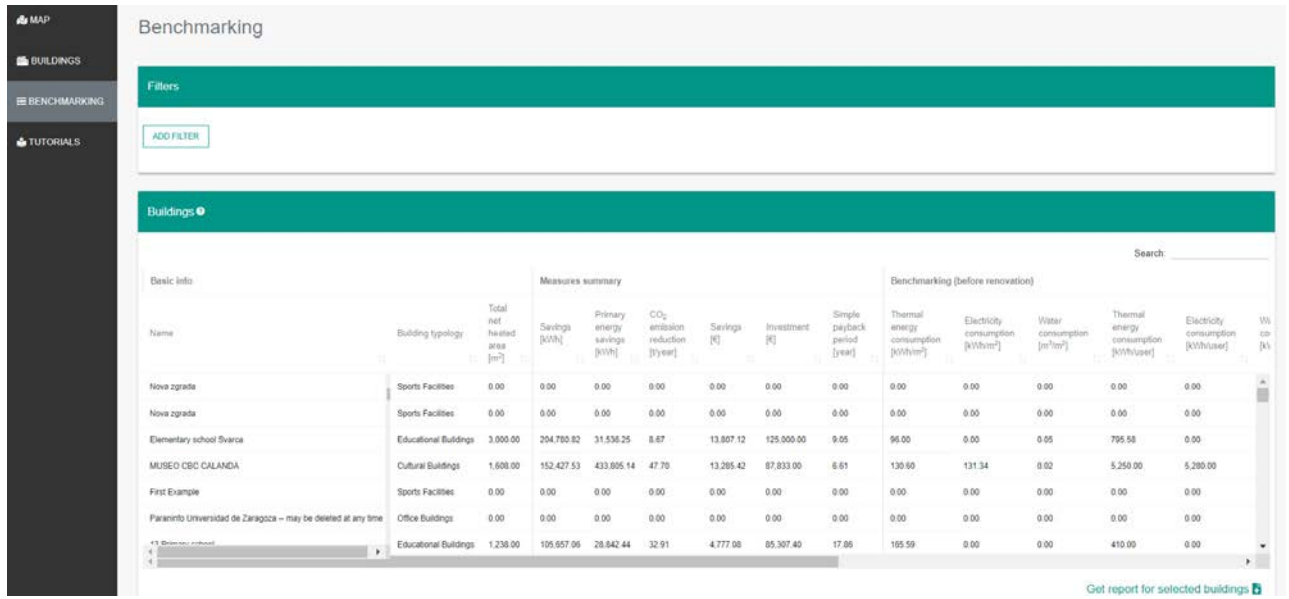
Imagem do edificio

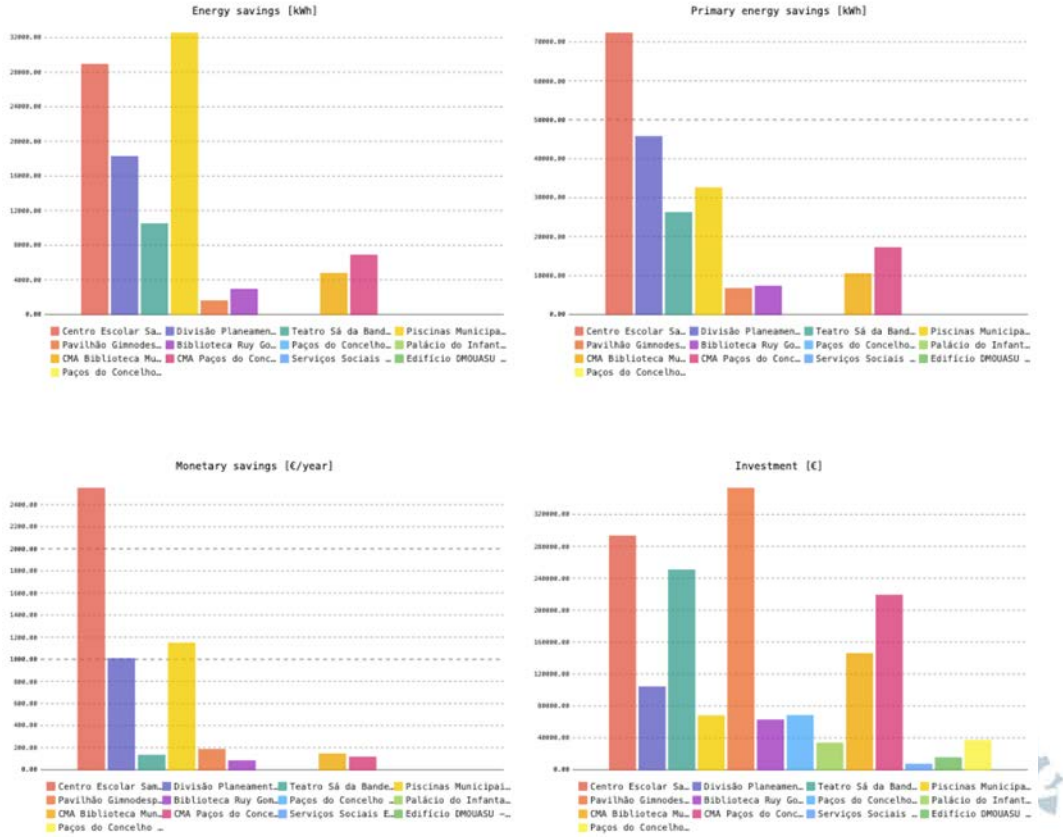
Descrição: Edifício público destinado e conservatório de musica e escola de dança.

João Pedro Gouveia
PrioritEE PLUS – Conferência ARRUDALAB, 07/06/2021

Benchmarking offers a possibility for:

- *Comparison of multiple selected buildings*
- *Extracting a report for selected buildings*





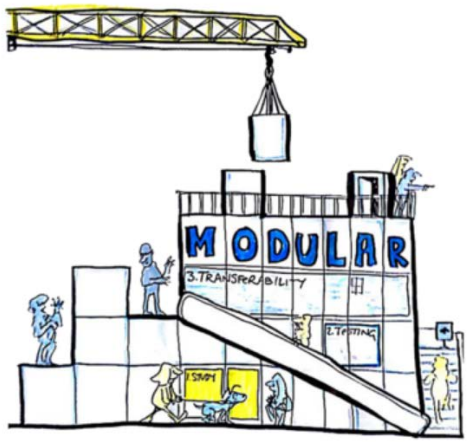
- *Tutorial for web-based application of the Decision Support Tool*

From PrioritEE to PrioritEE PLUS

Prioritize energy efficiency measures in public buildings: a decision support tool for regional and local public authorities

01/02/2017 - 31/07/2019

1st call for modular projects



Transferring the PrioritEE Decision Support Tool to public authorities in the MED area

01/03/2021 - 30/06/2022

4th call for modular projects - restricted for transfer and mainstream projects

João Pedro Gouveia
PrioritEE PLUS – Conferência ARRUDALAB, 07/06/2021

Partnership

SCIENTIFIC PARTNERS

LP. CNR-IMAA, Italy

GIVER

1. FCT -NOVA University of Lisbon, Portugal

GIVER

2. University of Zaragoza, Spain

GIVER

PUBLIC AUTHORITIES

3. National Laboratory of Energy and Geology, Portugal

RECEIVER

4. Municipality of Narni, Italy

RECEIVER

5. Aragonese Federation of Municipalities, Counties and Provinces, Spain

RECEIVER

Portuguese Partners

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

LNEG

ARRUDA DOS VINHOS

RNAE
Associação das Agências de Energia e Ambiente
Rede Nacional

areanatejo
Agência Regional de Energia e Ambiente do Norte Alentejano e Tejo

CIMLT
COMUNIDADE INTERMUNICIPAL DA LEZÍRIA DO TEJO

ENA
AGÊNCIA DE ENERGIA E AMBIENTE DA ARRÁBIDA

Associated Partners - AP

GIVER

2 local public authorities
2 Sectoral agency
1 Inter-municipal community

Giver APs
Municipality of Potenza (IT)
Società Energetica Lucana (IT)
Regional Development Agency of Western Macedonia SA - ANKO (EL)
CIMLT - Comunidade Intermunicipal da Lezíria do Tejo (PT)
City of Karlovac (HR)

Receiver AP
I.T.S. Efficienza Energetica (IT)
EUROMED Cities Network/City of Nice (FR)
IREC - Institut de Recerca en Energia de Catalunya (ES)
C.S.P. Gestioni Termiche srl (IT)
CONFAPI Terni (Italian Confederation of Small and Medium Industries) (IT)
Ordine degli Ingegneri della Provincia di Terni (IT)
CAMARA MUNICIPAL DE ARRUDA DOS VINHOS (PT)
AREANA TEJO (PT)
DPT - Provincial Government of Teruel (ES)
RNAE - Associação das Agências de Energia e Ambiente (PT)
ENA – Agência de Energia e Ambiente da Arrábida (PT)
University of Basilicata (IT)

RECEIVER

3 local public authorities
1 training centre
2 Higher education and research

1 Infrastructure and (public) service provider
2 Sectoral agency
1 Research and Academia
3 Other

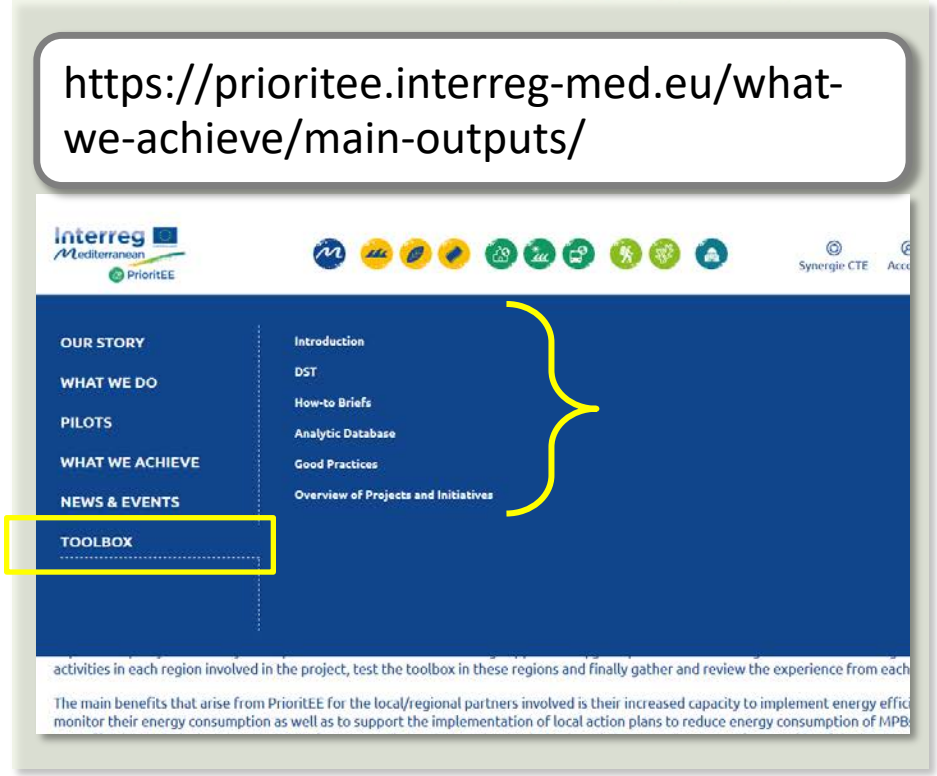
PrioritEE PLUS goal

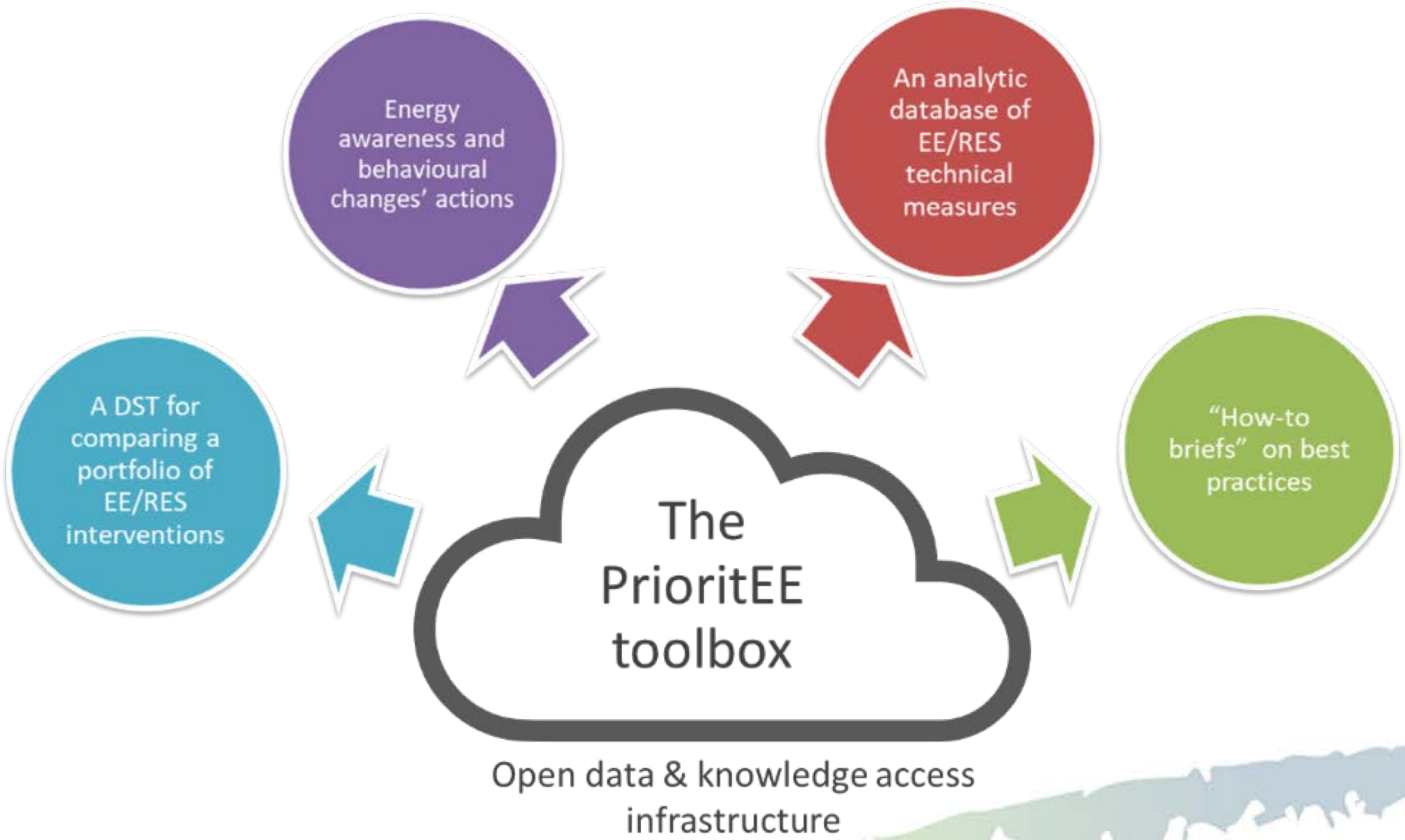
PrioritEE PLUS aims to improve, through transnational cooperation, the **capacities of public authorities in the energy management of Public Buildings and in local sustainable energy planning**.

The overall objective is to encourage the use of analytical tools to **support decision making** and the implementation of economically feasible and replicable technical solutions in the various territories of Mediterranean Europe.

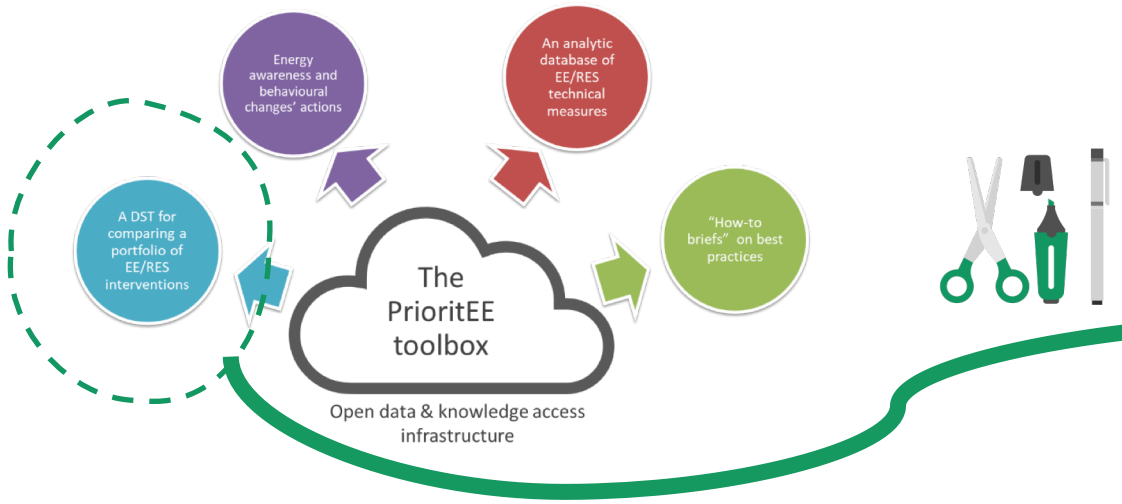
PrioritEE main outputs

https://prioritee.interreg-med.eu/what-we-achieve/main-outputs/

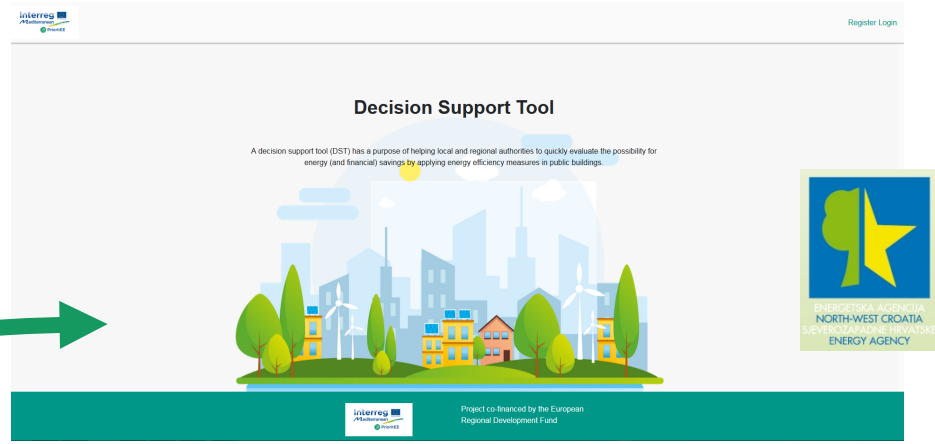




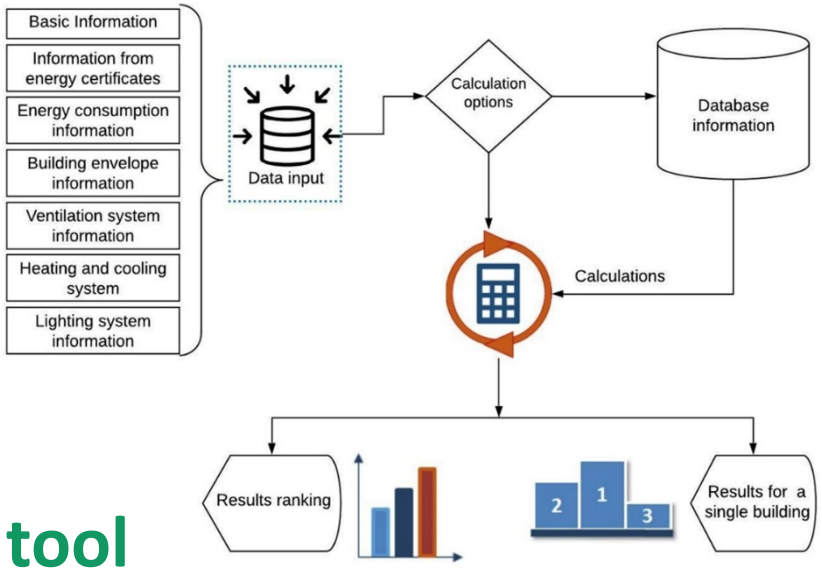
What to transfer



http://dst.thorium.software/

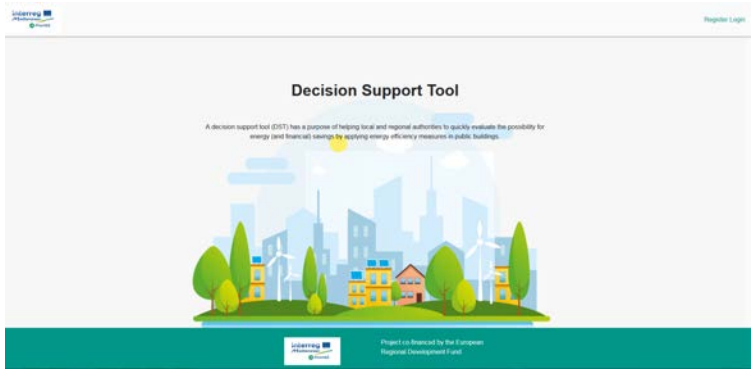


DST tool



- The web-based Decision Support Tool, available upon registration on the project web page
- It helps local and regional authorities to quickly and relatively easily evaluate the possibility for energy (and financial) savings by applying energy efficiency and RES measures in public buildings

How to transfer



The transfer process will be based on a structured capacity building program that involves local authorities, regional partners and key local actors, eliciting local specificities, supporting informed decisions on PBs renovation and leveraging the increasingly available information of energy performance certificates.

The commitment of “giver” and “receiver” partners will ensure a wider transfer of knowledge.
“**Givers**” will demonstrate the validity and usefulness of the DST and will assist the “**Receivers**” in its application.

Associated partners will also be a cornerstone for scaling and rolling out the DST at multiple levels.

Means of transfer

On-line and **in-person** capacity building activities organized around the PrioritEE PLUS DST in a modular structure, with self-supporting chapters in online learning environments.

- **Training courses**, in local languages and in English, on a wide range of technical topics on building elements, EE solutions, energy economics, SECAP creation and funding application.
- **Local study visits** and **Peer learning activities** among partners and within the *Efficient Buildings community* to consolidate the cooperation network and support further initiatives

A wider audience will be also reached via the PrioritEE PLUS website, social media channels and semi-annual newsletters. **Conclusive thematic national seminars (webinars)** for the tool dissemination will involve national agencies, local authorities and other key stakeholders.

Milestones:

- *M.2.4.1 - Case Study Reports (M7, September 2021)*

  - Case Study Energy Efficiency Strategies (M16, June 2022)

- *M2.4.2 – National Seminars (M12, Feb 2022)*

- *M2.4.3 – Memorandum of Understanding on Decision Support Tool Uptake by Local Public Authorities (M16, June 2022)*

EBC ANNUAL CONFERENCE

15 JUNE 2021
10:00-12:00
CAPACITY BUILDING WORKSHOP
PRIORITIZE ENERGY EFFICIENCY MEASURES IN PUBLIC BUILDINGS: THE PRIORITEE TOOLBOX

16 JUNE 2021
10:00-12:00
CAPACITY BUILDING WORKSHOP
FINDING THE RIGHT INCENTIVE: SISMA SET TOOL FOR THE BANKABILITY OF REFURBISHMENT PROJECTS

17 JUNE 2021
10:00-12:00
CAPACITY BUILDING WORKSHOP
ENERGY EFFICIENCY IN SCHOOLS' BUILDINGS: TOOLS FOR ENERGY PERFORMANCE ANALYSIS

Obrigado !!

João Pedro Gouveia, FCT-NOVA

https://prioritee.interreg-med.eu/

Interreg Mediterranean PrioritEE PLUS

CENSE center for environmental and sustainability research

NOVA SCHOOL OF SCIENCE & TECHNOLOGY