



Funded by the  
European Union



NATIONAL AGENCY FOR  
ENERGY CONSERVATION  
ANME

A sustainable and renewable engagement



MEETMED  
WEEK

22 - 24 APRIL 2024  
HAMMAMET-TUNISIA

In partnership with



الوكالة الوطنية لتطوير  
استخدام الطاقة وترشيده

meetMED

Mitigation Enabling Energy Transition in the MEDiterranean region

# ENERGY MANAGEMENT IN SCHOOLS

Eng. **Alessandra Gugliandolo** - EDI activity line manager,  
LAERTE Laboratory of DUEE SPS SIE - **ENEA** - Italy

22<sup>nd</sup> - 24<sup>th</sup> April 2024  
Hammamet, Tunisia



RCREEE

Regional Center for Renewable Energy and Energy Efficiency  
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

## WHAT WAS OUR AIM?

# GUIDELINES FOR ENERGY AUDITS IN SCHOOL BUILDINGS

- The objective of our task was to create a comprehensive tool that could guide technicians through the implementation of an energy audit.
- These values include both electrical and thermal consumption.

## WHAT WAS OUR AIM?

# GUIDELINES FOR ENERGY AUDITS IN SCHOOL BUILDINGS

- So we analysed **case studies** of **school buildings** and identified their **energy efficiency benchmarks** in terms of energy efficiency.
- These values include both **electrical and thermal consumption**. We asked our partners to provide us with the tools and information to adapt our algorithm to their country.
- This is how the tool is adapted to **different needs**.



# TABLE OF CONTENTS

## Energy Profile Module

- School details
- Energy Consumption
  - ▶ Heating Energy Consumption
  - ▶ Electricity Consumption
- Volumes and Surface
- Operating Time Factor
- Operating Degree Days
- Results

## Renovation Module

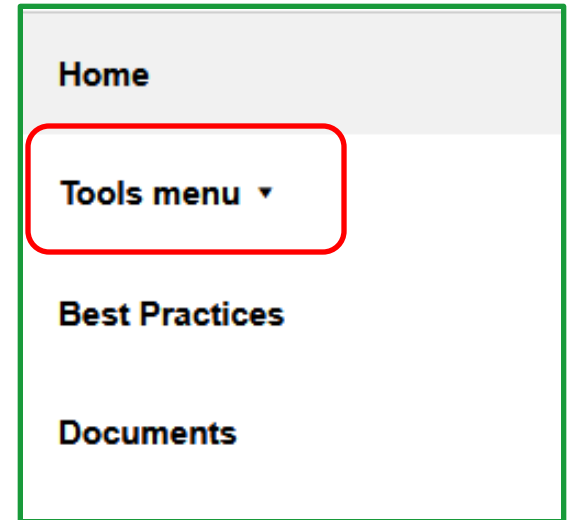
- Architectural elements
  - ▶ Glazing
  - ▶ Roof
  - ▶ Walls
  - ▶ Basement
- Systems
  - ▶ Heat generator
  - ▶ Lights
  - ▶ Solar Heating
  - ▶ Photovoltaic
- Results

## Options

## Financing Module

- Rates
- VAN
- Results

On the homepage click on **Tools Menu** in the left sidebar

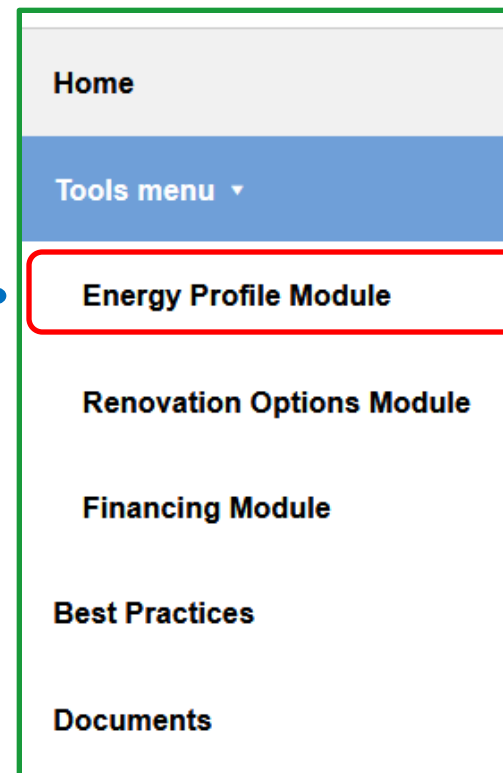


Click on **Tools Menu** in the left sidebar to open a drop-down list with options:

- ▶ **Energy Profile Module**
- ▶ **Renovation Option Module**
- ▶ **Financing Module**

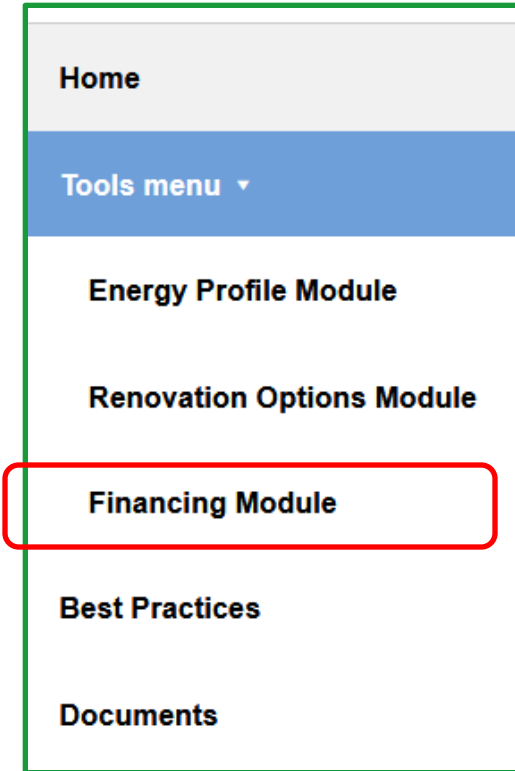
Click on **Energy Profile Module**

You can access the module for the calculation of energy indices of your school building and estimate its performance compared to the national benchmark.



At the end of the modelling, it has an energy profile of the school building from which to make reflections on the real case.

Click on **Financing Module**





## Study tours in Bologna

An important part of the project was the study tour held in Bologna last December with colleagues from APRUE, who showed great interest and cooperation in the task's activities.



# Contact us!



Mitigation Enabling Energy Transition in the MEDiterranean region  
Together We Switch to Clean Energy



MEETMED WEEK 2024

Third Edition - Tunisia

**For any inquiries or comments, please  
don't hesitate to contact us**

Alessandra Gugliandolo

Alessandra.Gugliandolo@enea.it

ENEA



[www.meetmed.org](http://www.meetmed.org)



meetMED Project



meetmed1



meetMED



This project is funded  
by the European Union