

MARIE TRAINING PROGRAM FOR IMPROVEMENT IN ENERGY EFFICIENCY (EE) OF EXISTING BUILDINGS

F1 | BEST PRACTICES COLLECTION

Best Practice Name:	Implementation of “Solution Technique de Référence” (Standard technical solution) – 22 apartments in 7 apartment block buildings
Code:	FR_RE_CO_09

Best Practice Description:

Type:	<input checked="" type="checkbox"/> Action for improvement in the EE	<input type="checkbox"/> Training experience (*)	
Description:	<p>The approach: Considering that it is necessary to massively renovate existing housing, in order to reach the goals of reducing GHG emissions, the cabinet Enertech thought about and developed a reference solution or “solution technique de référence”.</p> <p>It consists, after making numerous dynamic thermal simulations, in determining a general solution that is easy to implement and to monitor for all the buildings of a neighborhood or a determined geographic area.</p> <p>Specifications: In this case, the renovations made in the “Franklin” district in Mulhouse answered the following specifications:</p> <ul style="list-style-type: none"> • Loft insulation: $R = 7,5 \text{ m}^2 \cdot \text{K/W}$ • Insulation of internal slides of pitched roof, walls and low floor: $R = 4,3 \text{ m}^2 \cdot \text{K/W}$ • Double-flow ventilation • Installation of a collective gas condensing boiler • Joineries: $U_w = 1,1 \text{ W/m}^2 \cdot \text{k}$ • Installation of a solar water heater, according to the exposure <p>Guidance of workers intervening at each stage of the renovation: working with prime contractors/project managers during study phases, controlling the work quality directly on the construction site, keeping tenants aware and informed, following up on energy consumptions.</p>		
Location:	Mulhouse	Country: France	
Contact (team):	ENERTECH – 26160 Félines sur Rimandoule 04 75 90 18 54		
Type of building:	<input type="checkbox"/> Tertiary	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Mixed
Property:	<input type="checkbox"/> Public	<input type="checkbox"/> Private	<input checked="" type="checkbox"/> Mixed
Management:	<input type="checkbox"/> Public	<input type="checkbox"/> Private	<input checked="" type="checkbox"/> Mixed
Fields of action:	<input checked="" type="checkbox"/> Construction	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Use
	<input type="checkbox"/> Energy generation and distribution		<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Replacement or implementation of renewable energies	For some renovations: installation of solar water heaters	

Please, evaluate if the following processes take place in the Best Practice that you are describing in this form:

	Yes	No
The data collection has been complete and rigorous	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Communication and awareness processes have been developed to disseminate this practice	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Training actions have been provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Product and services have been improved	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jobs have been created	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sustainable financial models have been applied	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agreements or collaboration models have been defined between parties	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Positive impact tested in the following fields (add quantitative data if you have):

ENERGY EFFICIENCY IMPROVEMENT (EE)	<p>Results:</p> <ul style="list-style-type: none"> Initial energy consumption: 410 kWh/m² living space/year Consumption targeted: 50 kWh/m² living space/year Consumption measured: 75 to 89 kWh/m² living space/year <p>Renovation costs: 300€/m² living space in order to respect the specifications of the “solution technique de référence”.</p>
FINANCIAL COVERAGE	
EMPLOYABILITY POTENTIAL	No job creation may be directly attributed to this renovation program; however it creates additional revenues for companies appointed to the rehabilitation market and, as such, allows companies to develop.
OTHER	
DIFFICULTIES	

Agents involved in this experience:

<input checked="" type="checkbox"/>	Legislation agencies
<input checked="" type="checkbox"/>	Public promoters
<input checked="" type="checkbox"/>	Private promoters
<input checked="" type="checkbox"/>	Technical public institutions
<input type="checkbox"/>	Technicians of the private sphere (professional associations ...)
<input type="checkbox"/>	Builders
<input type="checkbox"/>	Industrial
<input type="checkbox"/>	Facility Managers (property managers, cleaning companies ...)
<input type="checkbox"/>	Energy supply companies
<input type="checkbox"/>	Users/owners (homeowners association, schools ...)
<input type="checkbox"/>	Other:
GAPS	In spite of the goal, which was to massively develop energy efficiency renovation practices, this project was only applied to 22 apartments in 7 buildings.

(*) RR_BB_FF_NN

RR Country: **CY** (Cyprus), **FR** (France), **GR** (Greece), **IT** (Italy), **MT** (Malta), **PO** (Portugal), **SL** (Slovenia), **SP** (Spain)

BB Type of building: **RE** (residential), **TE** (tertiary), **MX** (mixed)

FF Field of action: **CO** (construction), **MA** (maintenance), **US** (use), **EN** (energy generation and distribution), **OT** (other)
(in case of affecting more than one field of action choose the most relevant)

NN Number of the practice: **01, 02, 03...**

(*)IN CASE OF A TRAINING EXPERIENCE:

Course name:	
Duration:	<i>Training hours/ECTS</i>
Web:	
Director/a:	
Who is it aimed:	<i>Profile of trainees</i>
Objectives:	<i>What enables this training?</i>
Program:	
Methodology:	<i>Format (face-to-face, on-line), structure of sessions, visits, case studies, evaluation systems, dynamic sessions, other aspects ...</i>

I agree to bring this experience to the database of the MARIE project, which will create a comprehensive training program for improving the energy efficiency of buildings in the area of the Mediterranean.