MARIE
INFORMATION
AND TRAINING

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

F1 | BEST PRACTICES COLLECTION

Best Practice Name:	Learning by doing, or training through action
Code:	FR_TE_OT_26

Best Practice Description:

Type:	X	Action for improvement in the EE		Training experience (*)

Description:	The *Centre de Formation des Apprentis de l'Industrie* of Avignon (Training center for industry apprentices) trains young apprentices with a vocation for management positions within the companies in which they are going to work. The educational team considered that the energy efficiency of the processes implemented and the sustainability of the companies' development had to be integrated to their training. The young learners participated in an energy efficiency renovation project for one of the buildings of their training center. They were also asked to think about energy consumption limitation for one of the machines used in their workshop.

Location:	Avignon		Country:	France

Contact (team):	William Brunie brunie.william@cfai84.fr 0490815450

Type of building:	X	Tertiary		Residential		Mixed
Property:	X	Public		Private		Mixed
Management:	X	Public		Private		Mixed

Fields of action:	X	Construction		Maintenance		Use
		Energy generation and distribution			X	Other
		Replacement or implementation of renewable energies				

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	X	
Communication and awareness processes have been developed to disseminate this practice		X
Training actions have been provided	X	
Product and services have been improved	X	
Jobs have been created	X	
Sustainable financial models have been applied		X
Agreements or **collaboration models** have been defined between parties		X

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

ENERGY EFFICIENCY	In collaboration with the educational team, the learners have established

IMPROVEMENT (EE)	the following refurbishment program: • Insulation between the different zones of the building (workshops and classrooms) • Creation of buffer zones • Treatment of the thermal bridges by insulation of the INPs • Insulation of the entrance gate to the workshop • Installation of a temperature regulation and programming device • Installation of photovoltaic panels which partly supply the power tools of the workshop • Installation of a gas boiler in replacement of a heat pump air/air According to training centre manager, this refurbishment program led to reducing energy bills by at least 50%.
FINANCIAL COVERAGE	Part of the refurbishments financing was covered by the *Agir* program implemented by the *PACA* region.
EMPLOYABILITY POTENTIAL	No job creation may be directly attributed to the construction program, however it creates additional revenues for companies appointed to the rehabilitation market and, as such, allowed companies to pursue their development.
OTHER	This project was the occasion for the trainees to develop an industrial process which used less natural resources, with more limited impact on environment: • Part of the electricity produced with solar panels was used to supply power tools. • The water used in the production process partly comes from rainwater recuperation. • Residual water is treated by a phyto-purification system
DIFFICULTIES	The students who worked on this project showed a strong commitment. The educational team is now thinking about how to implicate the next classes. To do so, the *Agenda 21* (or Action 21) seems to be an interesting tool. Besides, the completed projects will be promoted.

Agents involved in this experience:

X	Legislation agencies
	Public promoters
X	Private promoters
	Technical public institutions
X	Technicians of the private sphere (professional associations ...)
	Builders
	Industrial
	Facility Managers (property managers, cleaning companies ...)
	Energy supply companies
	Users/owners (homeowners association, schools ...)
	Other:

GAPS	

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

(*)IN CASE OF A TRAINING EXPERIENCE:

Course name:	
Duration:	
Web:	
Director/a:	
Who is it aimed:	
Objectives:	
Program:	
Methodology:	

☑ *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.*