

## **EuroPHit**

## Outlines for training modules for tradespeople

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## **The EuroPHit Project**



With the EnerPHit Standard as the goal and Passive House principles as the basis, EuroPHit applies knowledge on deep energy retrofits to the oft-overlooked yet critical area of step-bystep refurbishments







## Step by step towards the goal... Training modules for tradespeople









## **Workshop modules**



Sp	ecialisation Building Envelope	Specialisation Building Services			
	1.1 Passive House Basics				
Day 1	1.2 Economic efficiency of the Passive House				
	1.3 Airtightness				
	1.4 Construction process / Quality assurance				
2	Specialisation Building Envelope 2.1.1 Thermal insulation 2.1.2 Thermal bridges 2.1.3 Windows	Specialisation Building Services 2.2.1 Ventilation 2.2.2 Ventilation - Special features of existing buildings	7		
Day 3 Day	2.1.4 Special aspects of step-by-step retrofit	2.1.3 Special aspects of step-by-step retrofit	Day		
	Specialisation Building Envelope 3.1.1 Existing buildings 3.1.2 Basic principles: Ventilation 3.1.3 Basic principles: Heat supply	Specialisation Building Services 3.2.1 Heat Supply 3.2.2 Basic principles: Thermal insulation 3.2.3 Basic principles: Thermal bridges 3.2.4 Basic principles: Windows	y 3		
	3.3 Excursion / Practical Experience		Day		
Optional: Final Examination Building Envelope Optional: Final Examination Building Services					

**Certified Passive House Tradesperson** 

(All Certified Passive House Tradespeople are listed on <u>www.passivehouse-trades.org</u>)



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#### Passive House Tradesperson

2x45 min:

- general principles
- window to wall connection
- wall to roof connection
- interior insulation
- heating and DHW systems
- ventilation

New material for tradespersons will be translated into the languages of the pilot site teams.





# How to implement energy efficiency in step-by-step retrofits?



1. Components step-by-step

Building stock	Insulation	v





RES and heating system

#### 2. Facades / parts of the building step-by-step

Building stock		North and west side		



Other windows, airtightness and ventilation





Remaining insulation, RES and heating system



## Implementation of energy, step by step









## **Measures: Facade insulation using EIFS**









## **Measures: Facade insulation using EIFS**

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## **Measures: basement ceiling insulation / insulation apron**









## **Measures: insulation apron**









## Measures: insulation of the top floor ceiling









## **Measures: window replacement**











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## **Measures: window replacement**







## **Measures:** airtightness









## **Measures:** airtightness









# Ventilation in modernisations of existing buildings

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Examples: air duct installation inside buildings

Core drilling and air duct installation in multi-storey residential buildings

The ventilation system is installed within a day

**Relatively low nuisance for tenants** 











## Measures: ventilation system with heat recovery EuroPHit







## Measures: central gased-based condensing boiler









## **Measures: RES Implementation**









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# Thank you for your attention

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