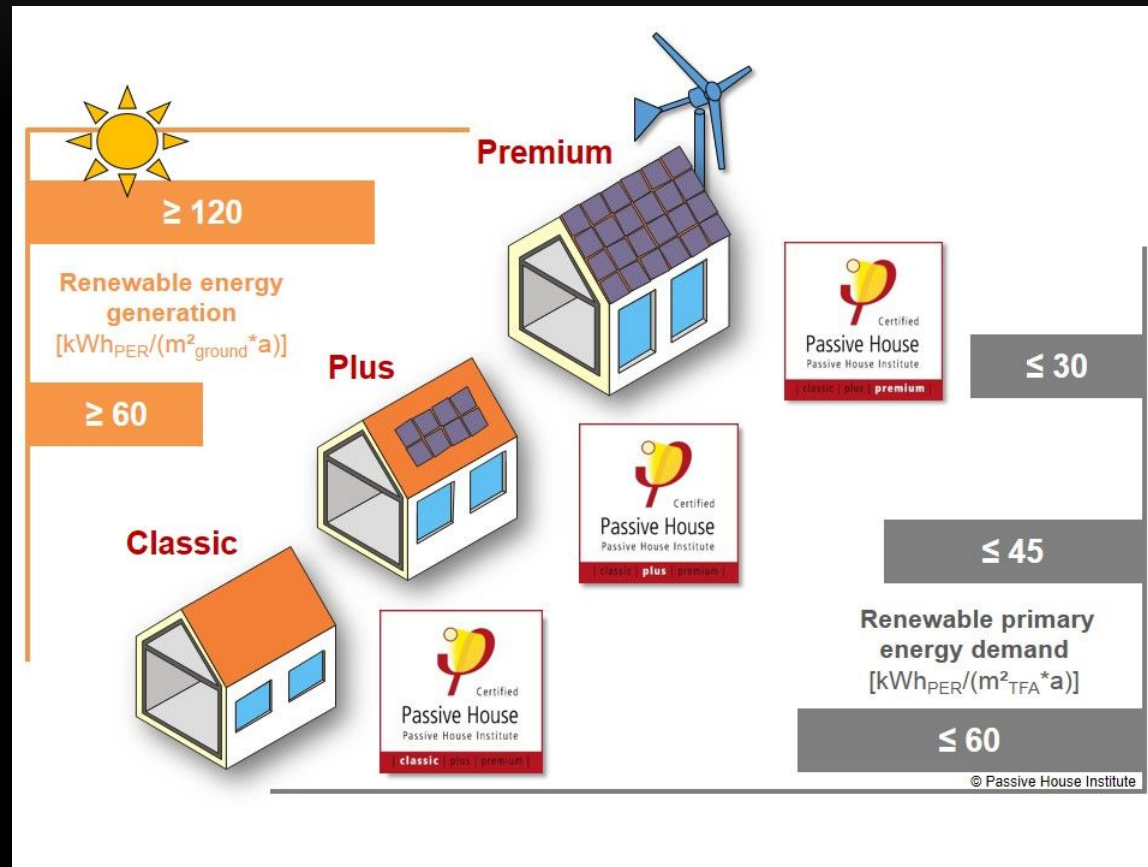


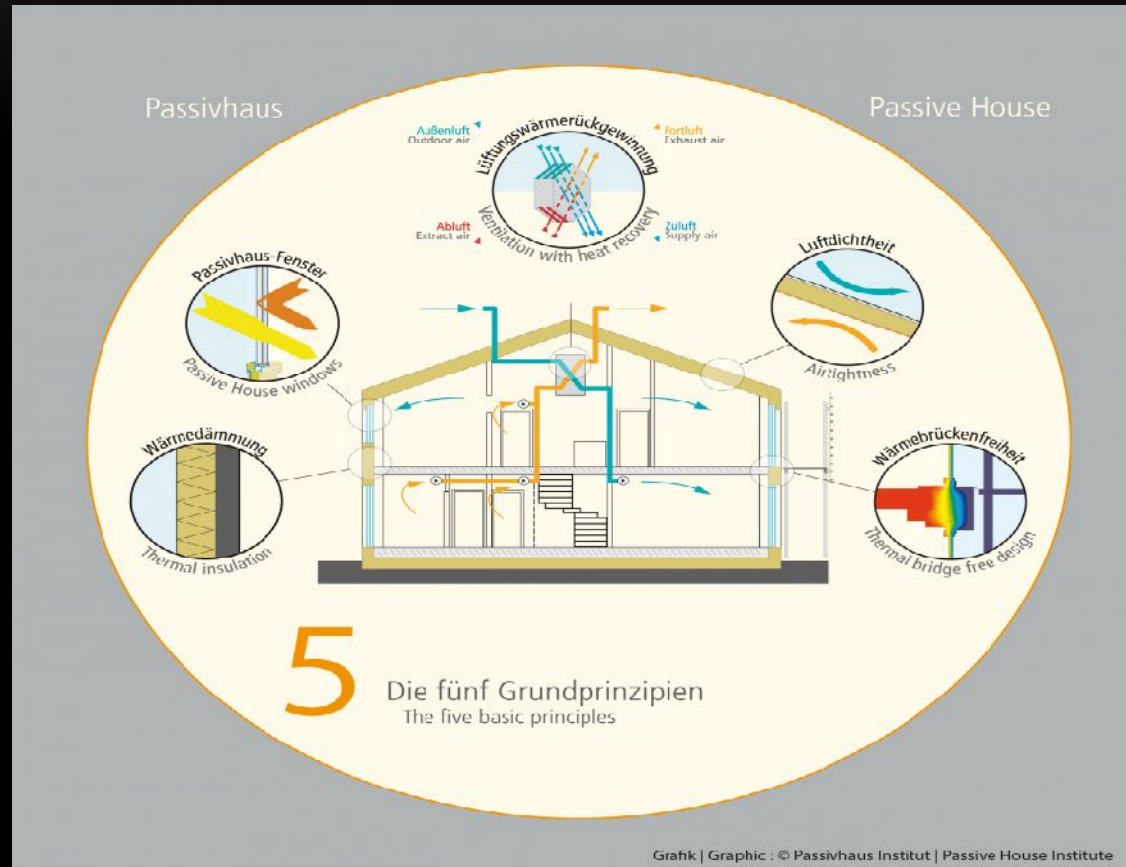
# Passive House

## 10 λόγοι που μισώ την εξοικονόμηση ενέργειας

# Passive house standard



# The 5 Pillars



# New York



# Brussels

ULB « AED » - pmp - A2M

enterprise europe network

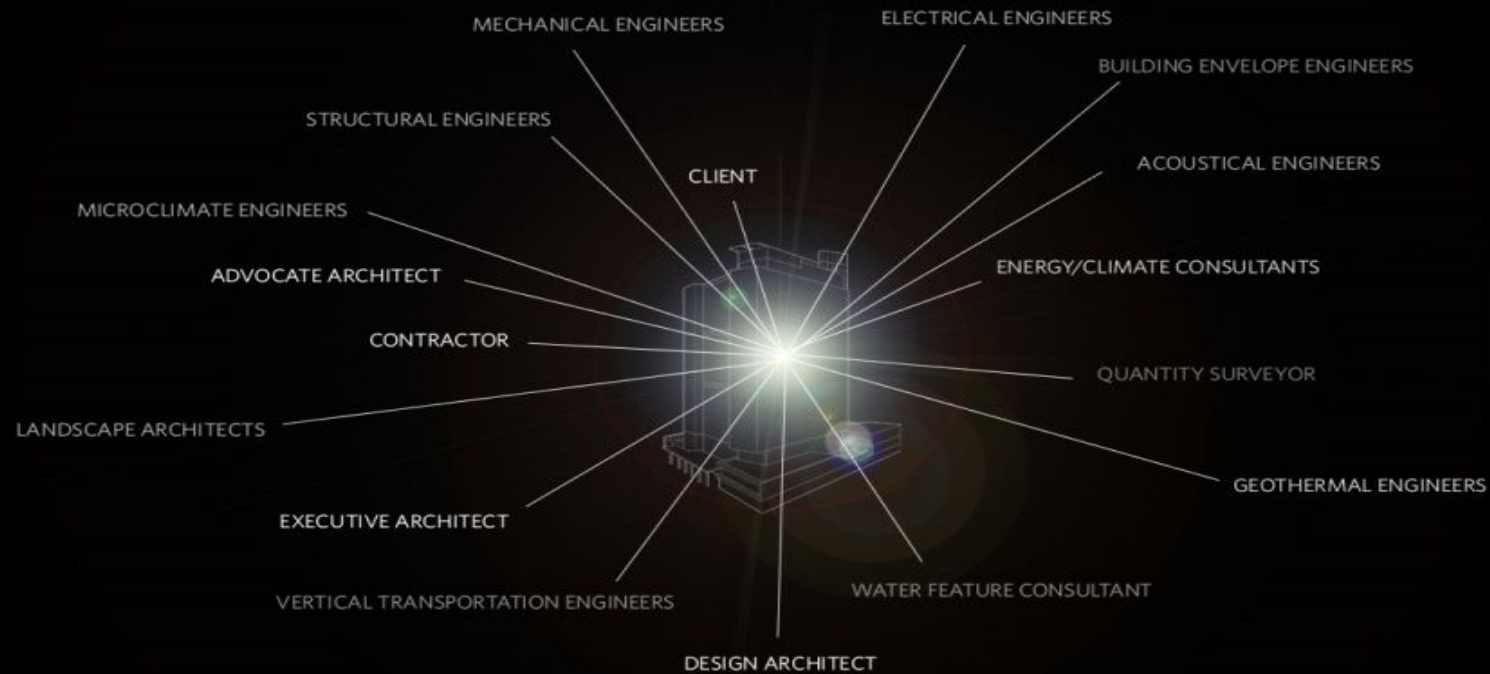
SUSTAINABLE CONSTRUCTION AND EFFICIENT ENERGY BUILDINGS COMPANY MISSION

MONITEUR BELGE BELGISC STAATSBLAD

good news

Sinds 2010:  
>2015:  
all new building must achieve Passivehouse standard

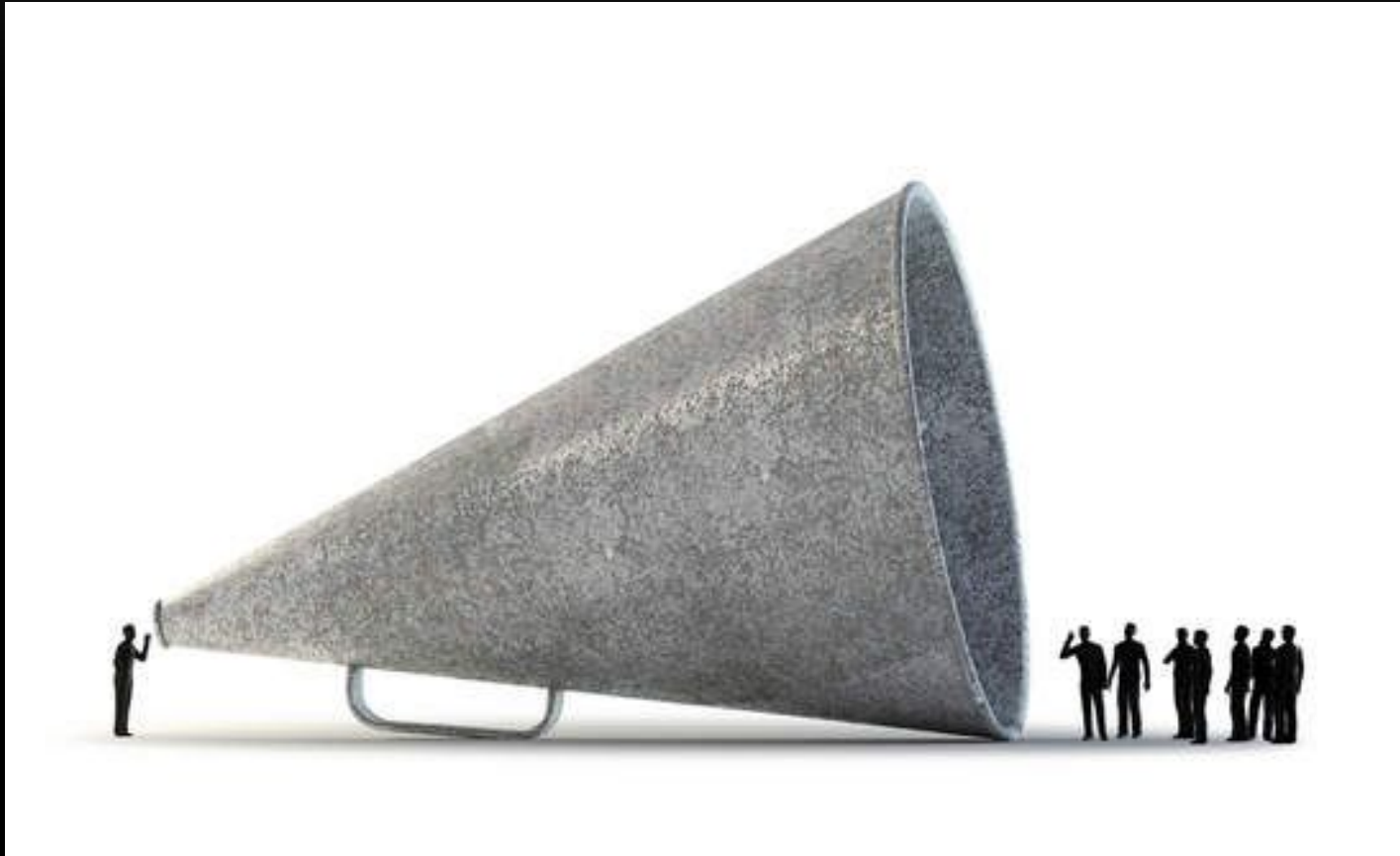
# 1. Integrated Design = Η βασική προϋπόθεση



## 2. A+++ ή απλά B?



### 3. Τα πολλά λόγια κουράζουν



## 4. Θερμογέφυρες παντού





## 5. Σημασία στη λεπτομέρεια



## 6. Το γυαλί δεν είναι πια σέξι



ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ – ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ  
ΤΜΗΜΑ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ

## 7. Τι είναι πράσινο τελικά?



## 8. Αερισμός? Ναι αλλά πώς?



## 9. Συστάσεις προς μηχανολόγους



# 10. Ζήσε την εμπειρία. Κατανόησε τη Διαφορά



## Certificate

Certified retrofit  
'EnerPHit Classic'  
(Climate zone: Warm)

**Passivistas:TheHouseProject**  
Anastaseos 112 str, GR-15669 Papagou Athens,  
Greece

**Passive House Institute**  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

**EnerPHit**  
Certified Retrofit  
Passive House Institute  
[classic | plus | premium]

Client	S Stefan Pallantzias Anastaseos 112 GR-15669 Papagou, Athen, Greece
Architect	A Athanasia Roditi - Chrysanthemon 18 GR-15354 Glyka Nera Aggeliki Stathopoulou Spetsion 18 15344 Gerakas, Greece
Building Services	I Ilias Igoumenidis Michael Aggelou 44 GR-45333 Ioannina, Greece
Energy Consultant	S Stefan Pallantzias Anastaseos 112 GR-15669 Papagou, Athen, Greece

Buildings retrofitted to the EnerPHit Standard offer excellent thermal comfort and very good air quality all year round. Due to their high energy efficiency, energy costs as well as greenhouse gas emissions are extremely low.

The design of the above-mentioned building meets the criteria defined by the Passive House Institute for modernization to the 'EnerPHit Classic' standard:

Building quality		This building	Criteria	Alternative criteria
Heating	Heating demand [kWh/(m <sup>2</sup> a)]	11	≤ 15	-
Cooling	Cooling + dehumidification demand [kWh/(m <sup>2</sup> a)]	12	≤ 17	17
	Cooling load [W/m <sup>2</sup> ]	10	≤ -	11
	Frequency of excessively high humidity [%]	5	≤ 10	-
Airtightness	Pressurization test result (n <sub>50</sub> ) [1/h]	0,6	≤ 1,0	-
Renewable primary energy (PER)	PER-demand [kWh/(m <sup>2</sup> a)]	51	≤ 60	60
	Generation (reference to ground area) [kWh/(m <sup>2</sup> a)]	24	≥ -	-
<b>Component quality</b>				
	Building envelope to ambient air (U-value) [W/(m <sup>2</sup> K)]	0,15	≤ -	-
	Building envelope to ground (U-value) [W/(m <sup>2</sup> K)]	0,45	≤ -	-
	Wall with interior insulation to ground (U-value) [W/(m <sup>2</sup> K)]	0,47	≤ -	-
Windows/Exterior doors (U <sub>w</sub> , installed)	[W/(m <sup>2</sup> K)]	0,87	≤ -	-
	Glazing (g-value) [-]	0,54	≥ -	-
	Glazing/shading (max. solar load) [kWh/(m <sup>2</sup> a)]	112	≤ -	-
	Ventilation (effect. heat recovery efficiency) [%]	91	≥ -	-

The associated certification booklet contains more characteristic values for this building.

Darmstadt, 05. Februar 2016  
Certifier: Susanne Theumer, Passive House Institute

*S. Theumer*

www.passivehouse.com 13070-13071\_PHI\_EP\_20160205\_STh

## ΥΠΟΛΟΓΙΣΑΜΕ

3.495,41 KWh/χρόνο

## ΜΕΤΡΗΣΑΜΕ

3.440,61 KWh/χρόνο

**ΜΕΣΗ ΜΕΓΙΣΤΗ ΘΕΡΜΟΚΡΑΣΙΑ ΚΑΛΟΚΑΙΡΙΟΥ**

**25,01 C°**

**ΜΕΣΗ ΕΛΑΧΙΣΤΗ ΘΕΡΜΟΚΡΑΣΙΑ ΧΕΙΜΩΝΑ**

**20,18 C°**



**ΜΕΣΗ ΤΙΜΗ ΣΥΓΚΕΝΤΡΩΣΗΣ CO<sub>2</sub>**

**618 ppm**

**ΜΕΣΗ ΣΧΕΤΙΚΗ ΥΓΡΑΣΙΑ**

**50%**

## Passive house : the red pill



This is your last chance. After this, there is no turning back. You take the blue pill—the story ends, you wake up in your bed and believe whatever you want to believe. You take the red pill—you stay in Wonderland, and I show you how deep the rabbit hole goes. Remember: all I'm offering is the truth, nothing more.

**Κάντε το επόμενο βήμα τώρα, είστε τόσο κοντά!**



Ευχαριστώ

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

[www.passivistas.com](http://www.passivistas.com)



Βασισμένο σε ένα κείμενο του Βρετανού Αρχιτέκτονα Elrond Burrell

ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ – ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ  
ΤΜΗΜΑ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ