



**UNIQUE opportunity to:**

- See latest developments in low energy retrofits
- Learn about Passivhaus and Enerphit principles
- Learn how to optimise specifications to offset condensation risk
- Review project details with Ecologicals technical team
- Full scale models and displays outlining key details
- 5 Structured CPD credits on completion
- See optimum execution of details by skilled craftsmen
- Each participant receives product samples, a memory stick loaded with relative information & literature



# Low Energy Retrofits

## Challenges solutions and opportunities to retrofitting insulation and airtightness in buildings

Retrofitting thermal insulation in buildings presents a unique opportunity to significantly reduce heat losses, improve comfort and reduce fuel bills. Retrofitting thermal insulation and airtightness in buildings can lead to numerous challenges and unforeseen consequences such as condensation, mould growth, building damage and a reduction in indoor air quality by using inappropriate materials and poor applications.

Ecological's "Low Energy Retrofits" course will provide attendees with critical information in relation to the durable retrofit of walls roofs and floors in masonry and timber frame buildings.

Training will be provided by Ecological Building System's skilled and experienced technical staff at their award winning state of the art training centre in Athboy, Co Meath. Full scale wall and roof models ensure attendees see at first hand, optimum low energy retrofit solutions. With Ecological's vast experience with award winning products on pioneering low energy retrofit projects we are in a unique position to impart our knowledge to the public at this critical stage.

Ecological has prioritised the need not just to supply a high quality product, but also provide back up with equivalent technical support and training. We have developed a wealth of knowledge over almost 2 decades based on our experiences and that of our supplier partners notably, pro clima, GUTEX, Calsitherm, DIASEN and Thermo Hemp.

## BOOK YOUR PLACE NOW

**Booking fee: €95.00 per day**

Booking & payment must be confirmed prior to attendance





# LOW ENERGY Retrofits

**Niall Crosson** Senior Engineer,  
Ecological Building Systems  
M.Eng.Sc. BTech, MIEI, CEPHC  
Senior Technical Engineer with  
Ecological Building Systems. He  
holds a degree as a Bachelor of  
Technology (1st class Hons.) and a  
Masters Eng. Sc. He is also a Certified  
Passivhaus Consultant. He is a member of the Board  
of Directors of the Irish Green Building Council  
and provides guidance on a number of national  
standard committees. He has provided guidance to  
many award winning low energy projects in Ireland  
and the UK. He has also co-authored and authored  
chapters for a number of low energy building  
publications including The Passivhaus Handbook  
and The Passivhaus Designers Manual. Niall also  
provides regular technical contributions to a number  
of construction publications including The Journal of  
the Royal Institute of Architects of Ireland.



## Roman Szytura

Clíoma House Ltd.

Born in Germany, Roman undertook a  
3 year apprenticeship as a joiner; he  
then worked for various companies  
as a carpenter, joiner, airtightness and  
insulation installer before becoming a  
freelance craftsman. His primary focus has always been  
on airtightness, natural insulation (mainly cellulose)  
and healthy energy efficient building. He moved to  
Sligo, in 2007 and founded Clíoma House Ltd which  
provides a full consultancy for Timberframe Passive  
Houses and installation service for airtightness and  
natural insulation. He has achieved airtightness results  
as low as an N50 of 0.087ACH.



Ecological Building Systems are members of



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## 1 Day Training Program

### 9.30am - Introduction

- Getting Retrofits Right – setting the scene
- Thermal Insulation Materials: Types, Uses, Applications and their environmental impacts.
- Thermal specifications, U, R and k values,
- Building regulations requirements
- Introduction to Passivhaus & Enerphit Standards

### 10.15am - Coffee Break

### 10.30am - Internal Insulating Solid Walls

- Moisture and its impact on buildings
- Primary drivers of moisture ingress
- Moisture and its relationship with IWI on solid masonry walls
- Internal Wall Insulation Systems
- Solid Wall IWI Case Study



### 10.30 - 10.45 - Coffee

### 12.00 - Thermal Refurbishment of Roofs and Floors

- Thermal Refurbishment of pitched roofs
- Thermal Refurbishment of flat roofs
- Upgrading Suspended floors



### 1.00 pm - Lunch

### 2pm - Air-Tightness & Intelligent moisture management

- Condensation and Ventilation considerations.
- Intelligent moisture management
- On site details and recommendations
- Material specifications for airtightness



### 3.00-3.15 - Coffee

### 3.15pm - Hands on Practical Application and Demonstrations

- Air leakage test demonstration with the pro clima WINCON in our demo
- Internal/external natural insulation demonstrations for roofs, walls, floors
- Practical airtightness installation with pro clima airtightness products with an airtightness installation expert
- Summary
- Questions and answers

### 4.30pm -End of Training

### Where we are:

#### From the North (Belfast)

Take the M1 towards Dublin. At J10 exit onto the N51 for Drogheda North / Slane, continue to follow signs for Navan. From Navan, follow the signs for Athboy.

#### From the East (Dublin)

Take the M3 towards Cavan. From M3 exit at J9 for Navan North/Devlin, follow signs for Athboy.

#### From the South (Cork).

Take the M8 Northbound for Dublin, then follow directions from Dublin as above. From the West (Galway). Take the M6 Dublin Road. At J2 take the R148 into Kinnegad, follow signs for Athboy/Trim on the R161. Turn off the R161 Trim Road to the L4016 to Ballivor and follow the signs to Athboy. Ecological Building Systems are based on the Main St, in Athboy directly opposite the Bank of Ireland. There is large signage for MacCann and Byrne, Ecological Building Systems outside the main building. Parking is available on our premises.



**www.ecologicalbuildingshop.ie**