

# PassivHaus Implementation: Early Learnings

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# Overview



**Working for People & Places,  
not Profit**



**Social & Environmental  
Responsibility**



**Innovation**



**Sustainability & Resilience**



**Customer Service**



**Partnership**

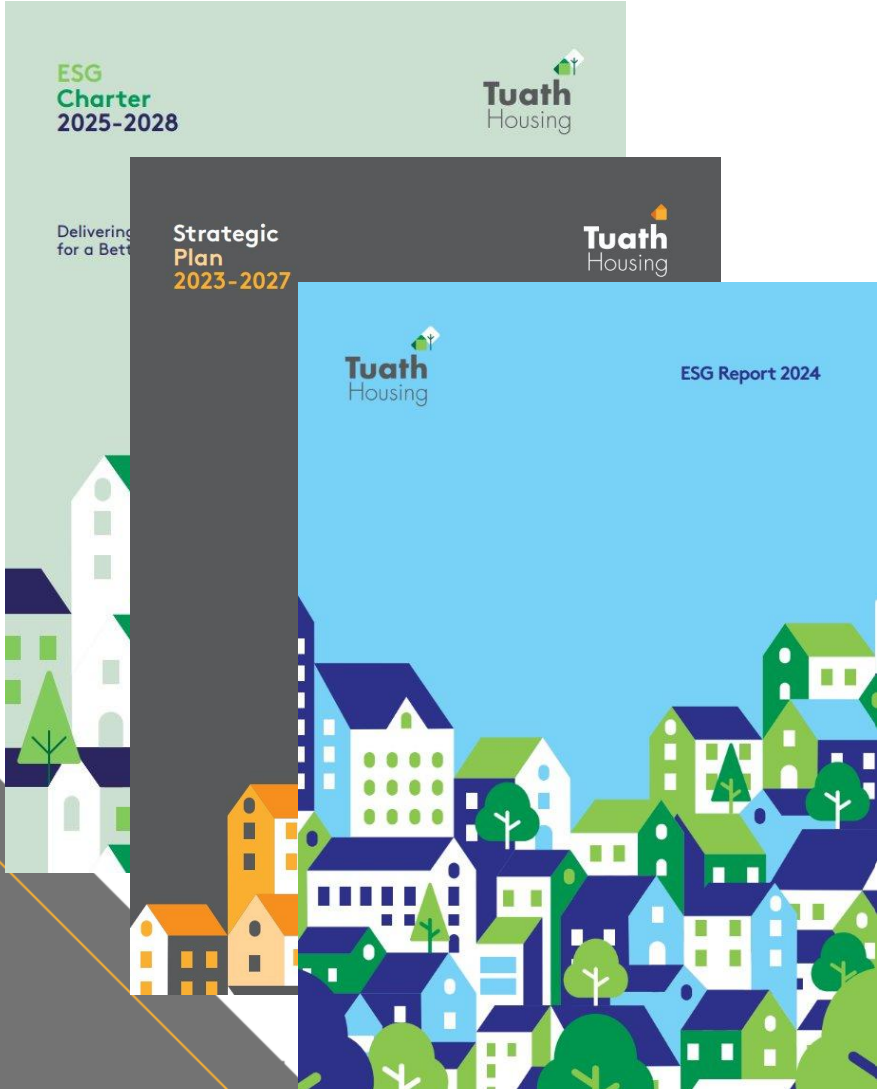
## Our Mission

*Provide Good Quality, Secure  
Homes That People Can Afford*

## Our Vision

*Investing In People And Places By  
Providing More Homes And Choice*

# Tuath's ESG Framework

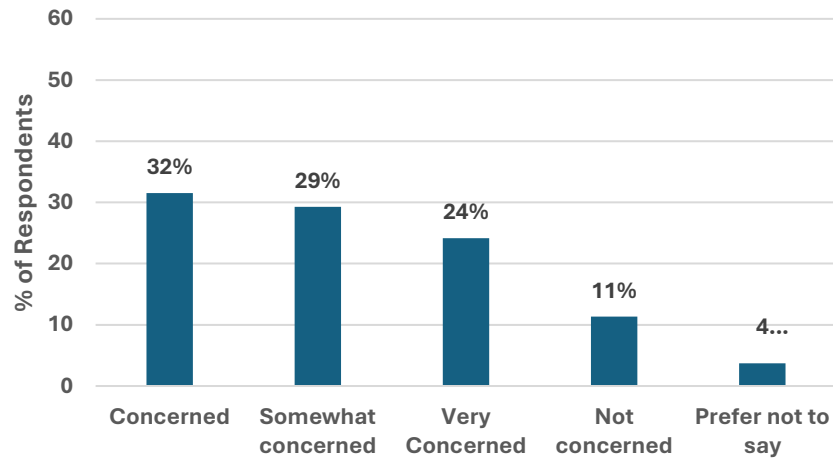


# Environmental Pillar Framework

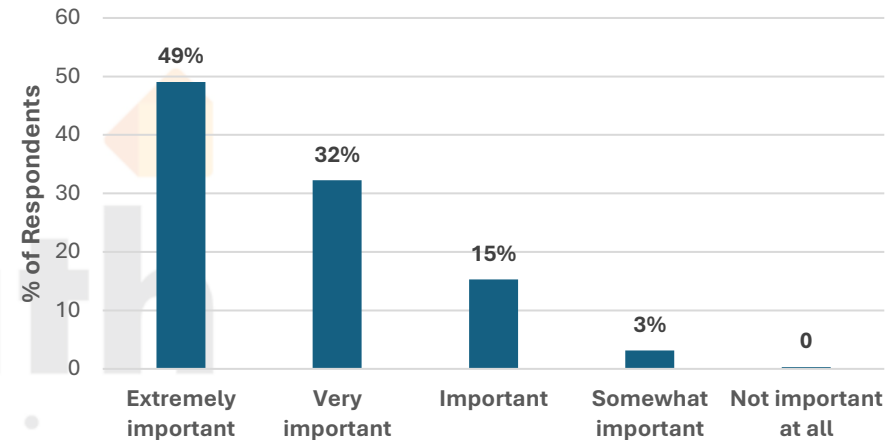
Pillar	Material Topic	Subtopic	
Environment	Climate Change	Impact of Extreme Weather Events	
		Energy Measurement & Management	
		Decarbonisation	
		Tenant & Staff Engagement	
		Supply Chain Management	
	Resource Use & Circular Economy	Waste Management	
		Water Management	
		Supply Chain Engagement	

# Tuath Tenant Climate Action Survey

How concerned are you about Climate Change?



How Important is it for you that your home is energy efficient?



- 85% of Respondents are concerned about climate change with almost a quarter responding, 'very concerned'.
- 98% state that energy efficiency in the home is important to them with 50% saying it was extremely important to them.

# PassivHaus: Aligning with Tuath's ESG Framework

## **Environmental Benefits**

PassivHaus lowers energy use, cuts carbon emissions and support climate goals

## **Social Impact**

It enhances comfort, improves air quality, and protects tenants from fuel poverty

## **Governance and Leadership**

Tuath emphasises ethetal leadership, risk management and financial stability

# Whitehaven, Santry Overview

- Large Scale Development: 255 Homes 161 Cost Rental, 94 Social
- Completed in collaboration with Cairn Homes and Fingal County Council.
- One of Irelands first and largest PassivHaus Schemes
- Tenant Allocations commenced mid Nov 2025



# Tuath's Approach to PassivHaus Implementation

- Proactive
  - Research/Networking
  - Cross departmental Training
- Engaging Tenants on Passive Haus Living
  - At Pre Tenancy
  - Move In Guides
  - Energy Clinics
  - Surveys
- Asset Management: Post Occupancy Sensor Monitoring



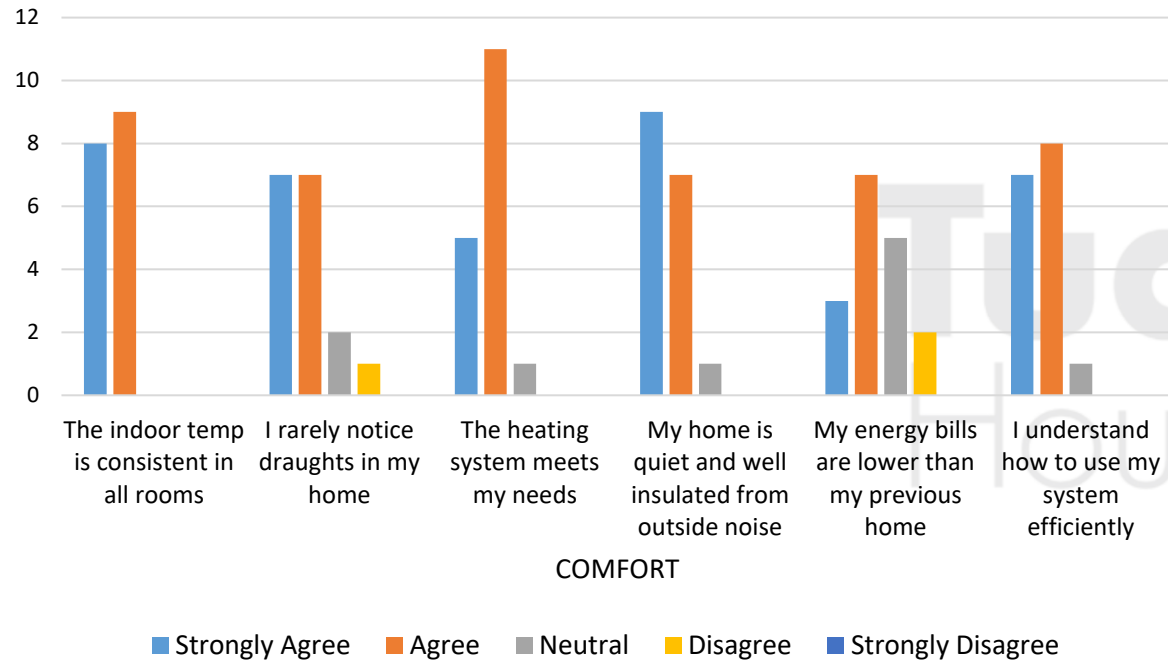
# Tenant Engagement Clinics



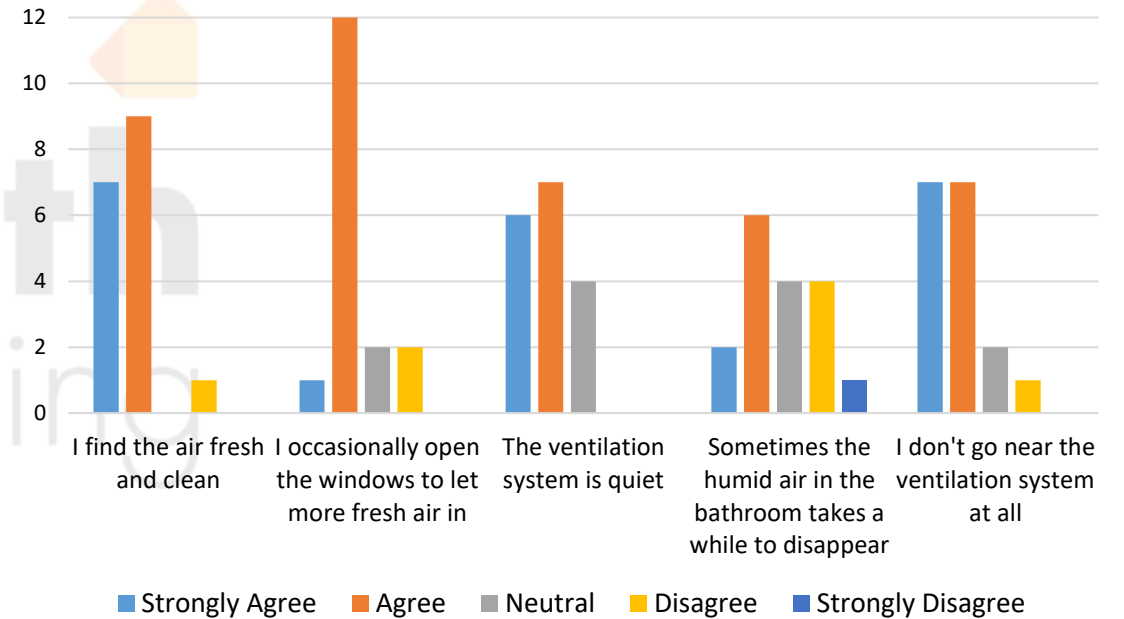
**Consistent Indoor Temperatures**  
**Effective Heating Systems**  
**Noise Insulation Benefits**  
**Energy Costs and Education**

# Initial Tenant Survey Findings (n=17)

## Comfort Levels in Passivhaus

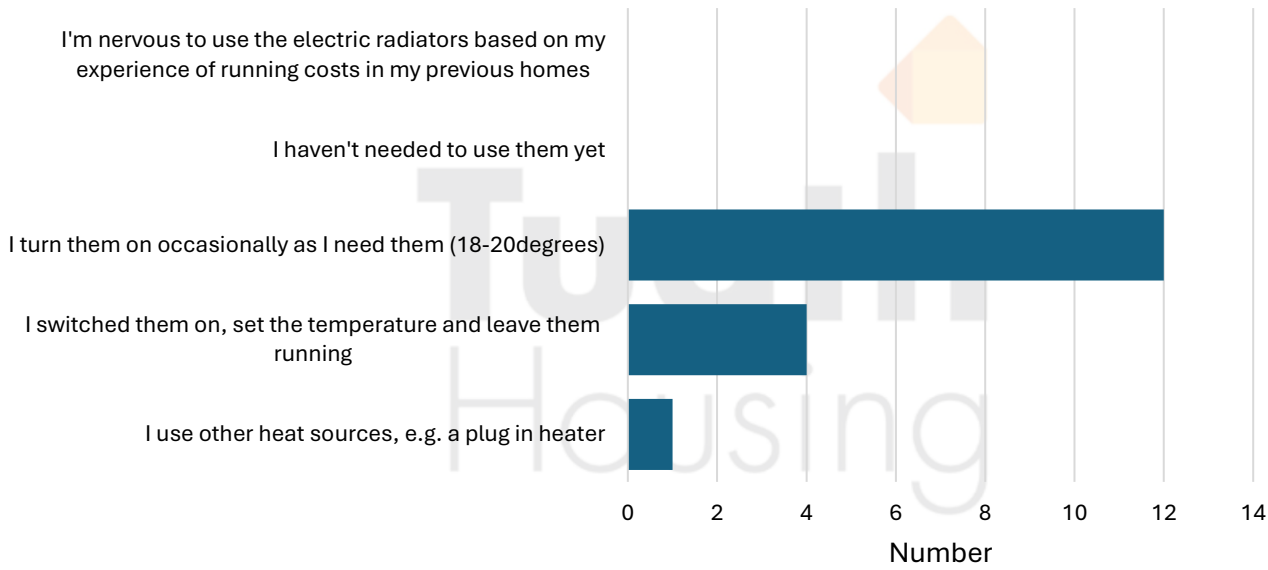


## Ventilation



# Tenant Survey Findings (n=17)

## Panel Heaters



# Post Occupancy Sensor Analysis

- Indoor Air Quality (Temp, RH, CO<sub>2</sub>)
- Space Heating Energy Consumption
- Hot Water Energy Consumption
- Risk Register

# Sensor Data Example

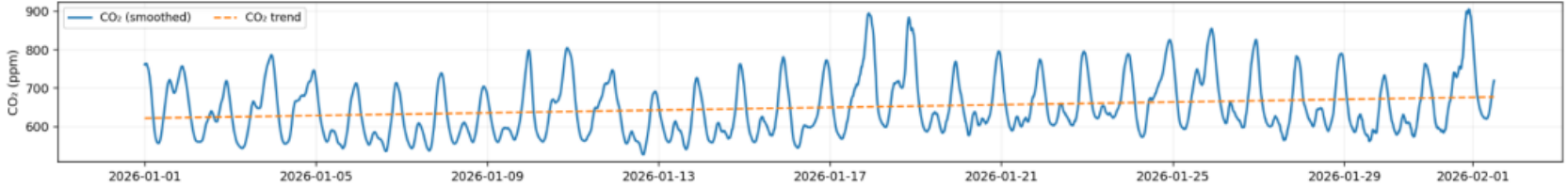
## B2 – Block overview

01 Jan 2026 to 01 Feb 2026

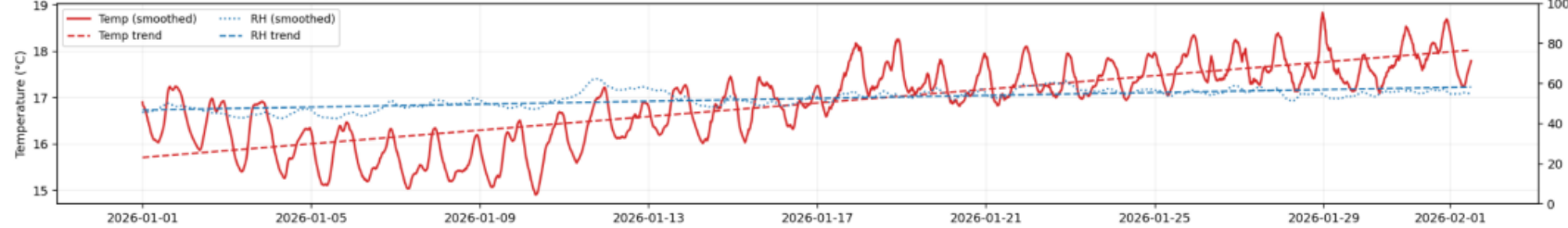
Occupied apartments only (n=55)

Occupied TFA used: 4241.2 m<sup>2</sup>

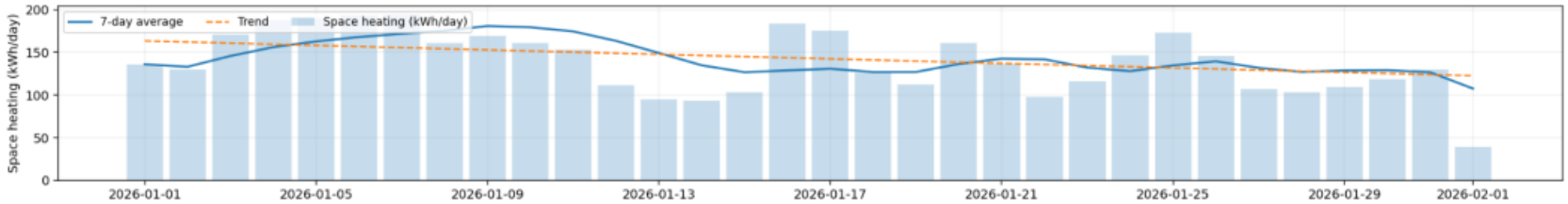
CO<sub>2</sub> (occupied apartments only)



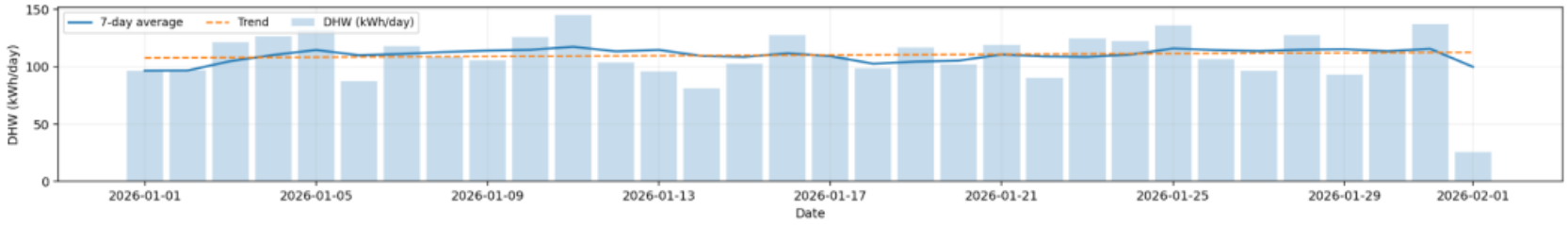
Temperature and relative humidity (occupied apartments only)



Space heating (period): Actual 4432 kWh | 1.04 kWh/m<sup>2</sup>.(period) Predicted 14390 kWh | 3.39 kWh/m<sup>2</sup>.(period)



DHW (period): Actual 3493 kWh | 0.82 kWh/m<sup>2</sup>.(period)



# Initial Sensor Findings

- The apartments are cooler than predicted
- Space heating demand is also lower than predicted
  - Most apartments are using less than half the predicted space heating demand
  - Heating is either turned off, run intermittently or at low setpoints in many homes – suggesting user behaviour
- Moisture and ventilation are second order effects.
- Tenants are reporting positive experiences and comfort levels
- Action Plan developed and Improvements to User Guides

# Key Takeaways for PassivHaus Implementation

## **Scalable Energy Performance**

Tuath's Passive House projects aims to prove deep energy efficiency is achievable at scale in housing sector.

## **ESG and Tenant Benefits**

Integrating PassivHaus with ESG frameworks boosts environmental outcomes and tenant comfort

## **Alignment with Climate Targets**

PassivHaus supports Ireland's 2030 and 2050 climate goals through sustainable housing delivery.

## **Education is Critical**

Staff and tenants alike to understand principles and systems.

## **Data-Driven Feedback Ecosystem**

Surveys, sensors, and clinics create feedback loops that refine housing strategies continuously.