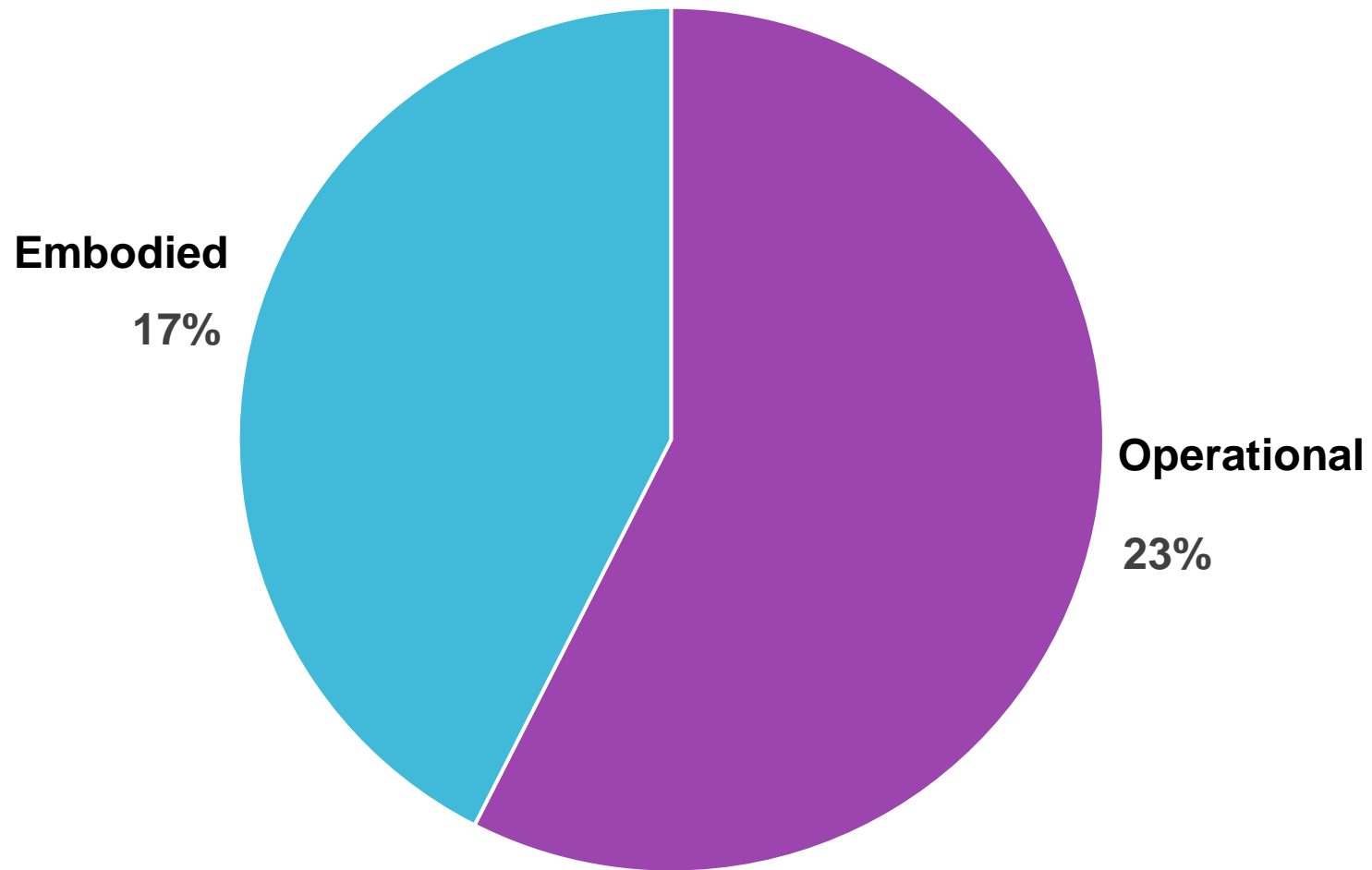


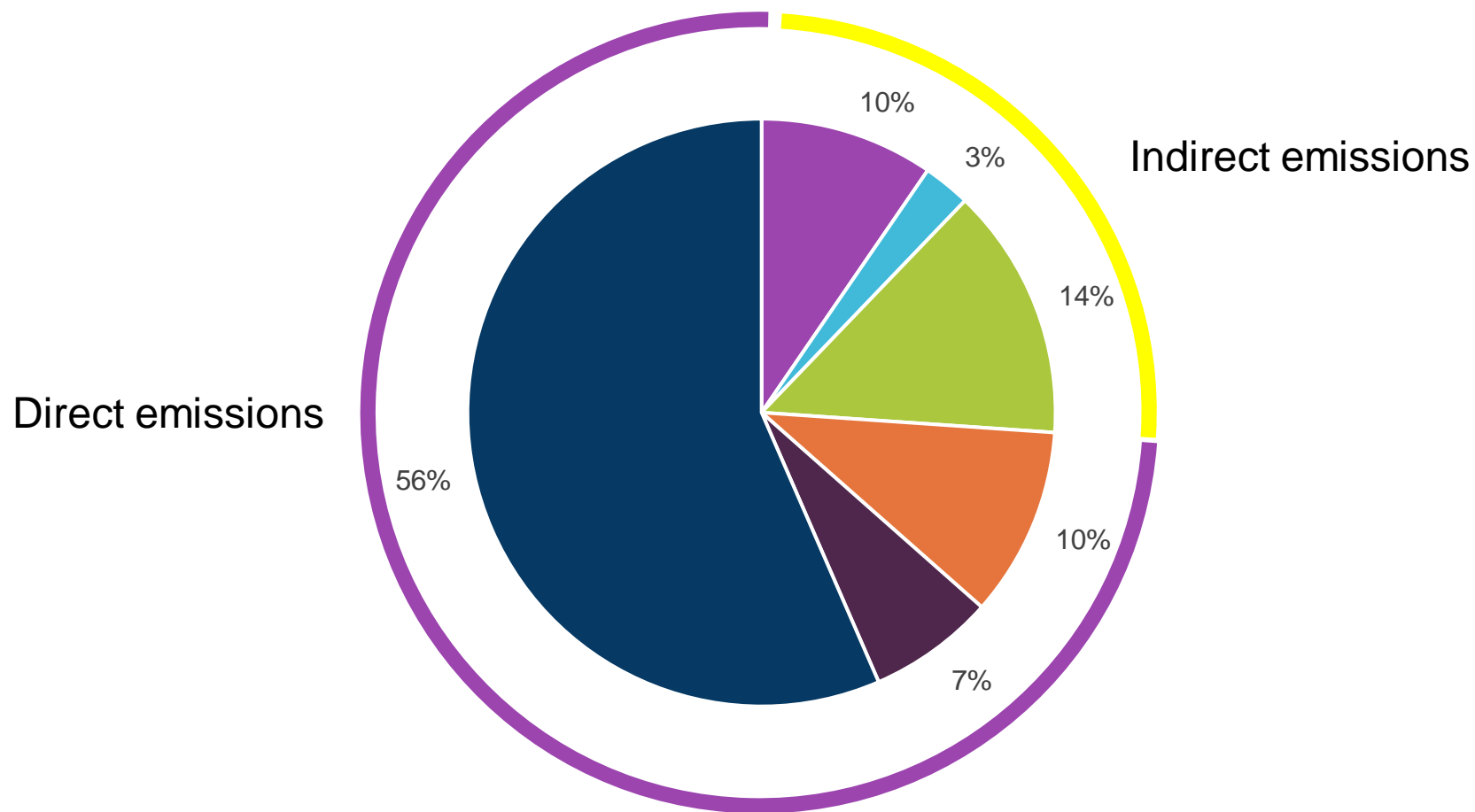
Decarbonisation for Decision Makers

Dr Richard Miller
Miller-Klein Associates Ltd

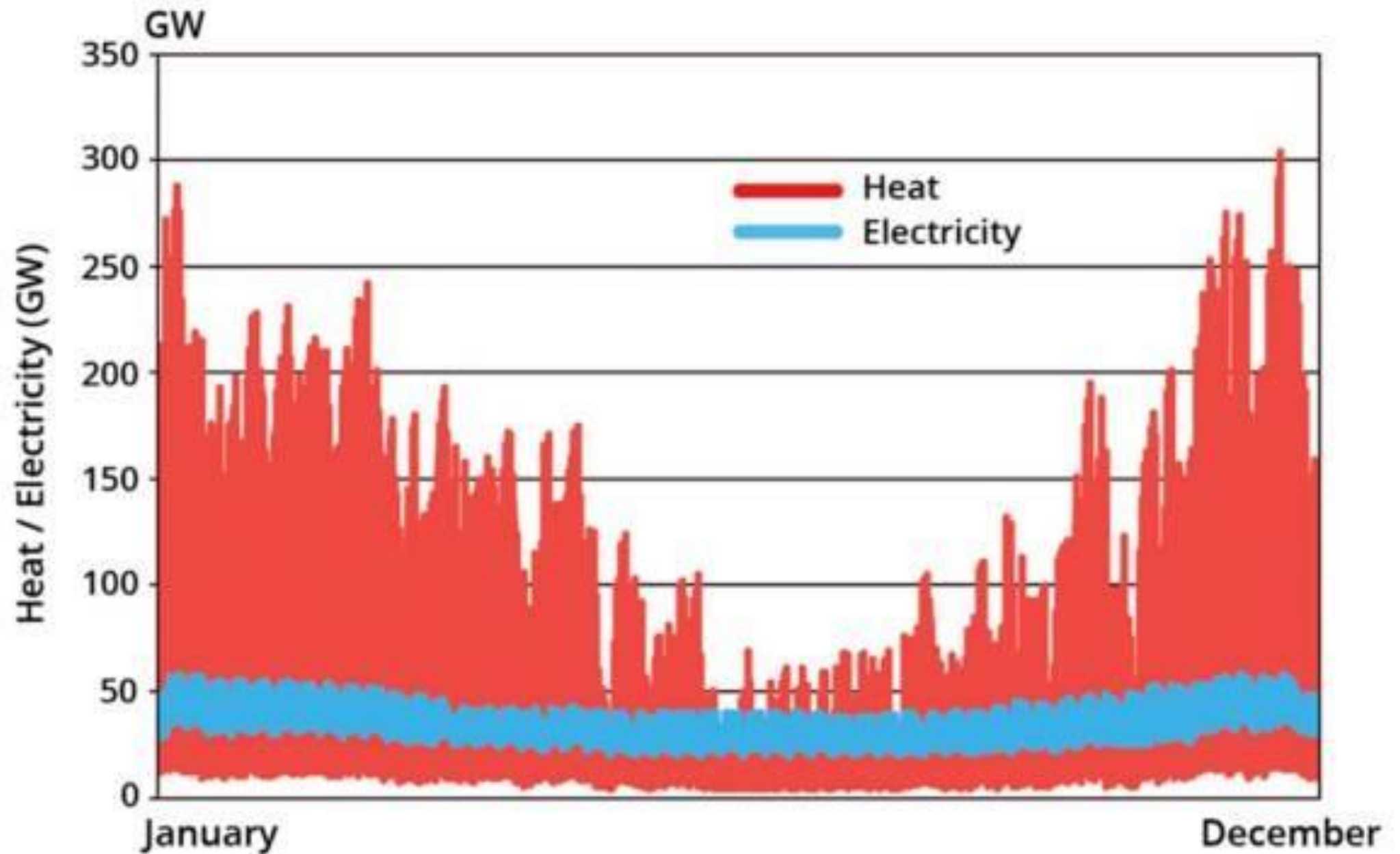
Built Environment – 40% UK Emissions



Operational Emissions from UK Buildings - 115 MtCO₂e/year



■ Commercial Indirect ■ Public Indirect ■ Residential Indirect
■ Commercial Direct ■ Public Direct ■ Residential Direct



ETI, 2015, *Smart Systems and Heat: Decarbonising Heat for UK Homes*

Mjøstårnet, Norway

85.4 metres





Agile Property



University of Waterloo









Scaling up

We are not doing it:

- Fast enough
- Cost-effectively enough
- Reliably enough



We need both:

- **Better solutions:**
 - Reduced cost
 - Improved performance
 - Ease of installation, use and maintenance
- **Market pull:**
 - Policy drive
 - User attractive

Need both innovation and policy intervention














- 
- Policy
 - Technological Innovation
 - New Business Models
 - Marketing and Information
 - Skills and Education

A Win-Win-Win

Society



Industry



Government



Decarbonising the Built Environment

Guide for decision makers



www.theiet.org/built-environment

policy@theiet.org