Home Environment Solutions through Technology and Innovation for All: HESTIA

Douglas Booker, Suzanne Bartington, Ruth Doherty, Helen Fisher, Rajat Gupta, Anna Mavrogianni, Alejandro Moreno-Rangel, Catherine Noakes, Amber Yeoman





(Just) transitions?

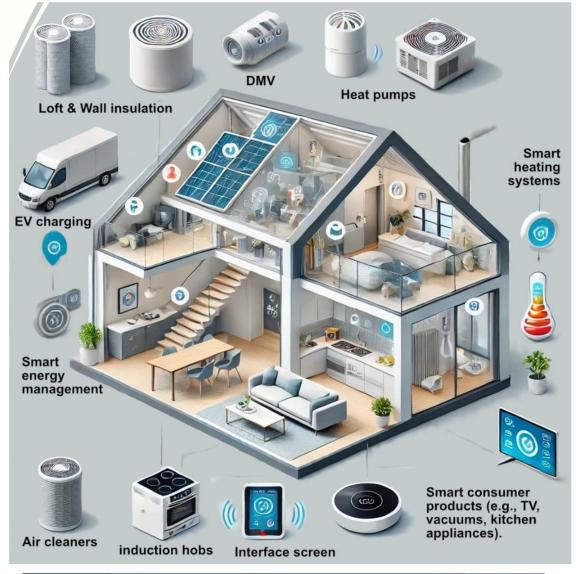
- The UK housing stock is undergoing an unprecedented transformation to reduce carbon emissions
- The impacts of these changes on Indoor Environmental Quality (IEQ), physical and mental health and wellbeing, and equity are less well known





Integrated technologies

- Delivering low-carbon, healthy, and equitable homes through design and retrofit will need multiple different technologies
- Current efforts focus primarily on building fabric or system upgrades, yet there are significant opportunities through replacement technologies, smart devices, and consumer products



Gov backed schemes

Individual led

Building fabric & system upgrades e.g. insulation, heating, ventilation

Replacement tech e.g. induction hob, electric fire Smart tech e.g. air quality sensors, app-controlled devices Consumer products e.g. air cleaner, dehumidifier

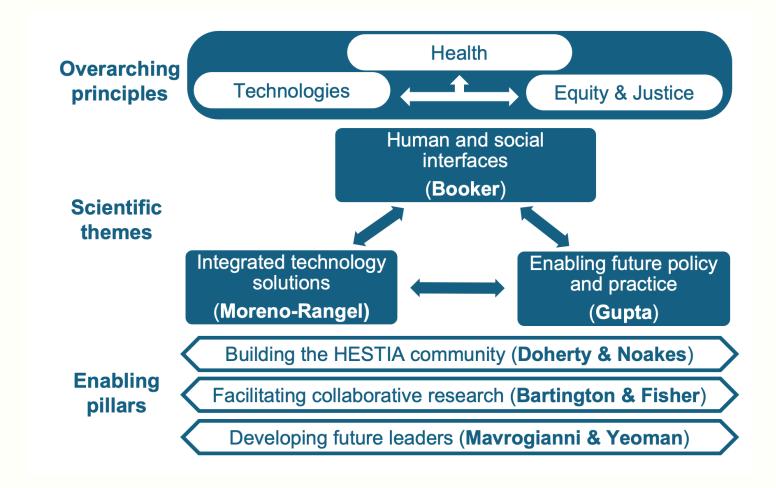
High

Cost, time and complexity



Our aims

 HESTIA will create a new health-equity-centred engineering approach to home design and retrofit, integrating existing and emerging building technologies to maximise human and environmental health co-benefits, and minimise health inequalities





Who we are working with

Project partners























Advisory Board







Prof Tim Sharpe



Emma Gibbons



Jack Hulme



Prof Sani Dimitroulopoulou



Prof Pawel Misztal



Dr Olivia Swann



Prof Maria Kolokotroni



Keep in touch!

- HESTIA launching November 2025
- Accelerating the creation of indoor home environments that meet Net Zero targets while promoting physical and mental health and wellbeing for all, considering the interface of technologies and social factors

d.d.booker@leeds.ac.uk

The HESTIA Team



Dr Douglas Booker



Dr Suzanne Bartington



Prof Ruth Doherty



Prof Helen Fisher

Dr Alejandro Moreno-Rangel



Prof Rajat Gupta





Prof Cath Noakes



Prof Anna Mavrogianni



Dr Amber Yeoman

