

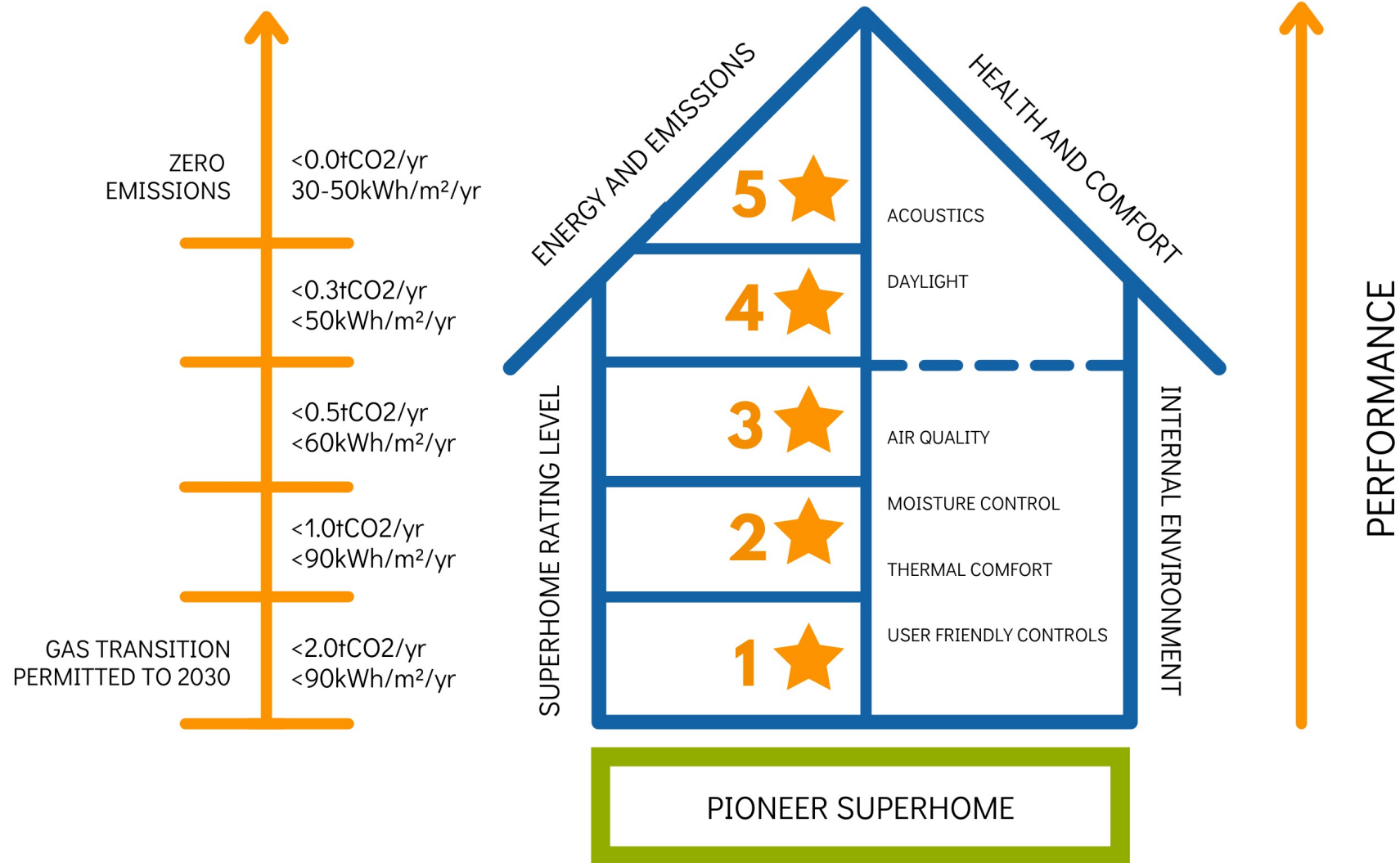
# The SuperHomes Rating Scheme



Paul Ciniglio – Refurbishment Lead, NEF

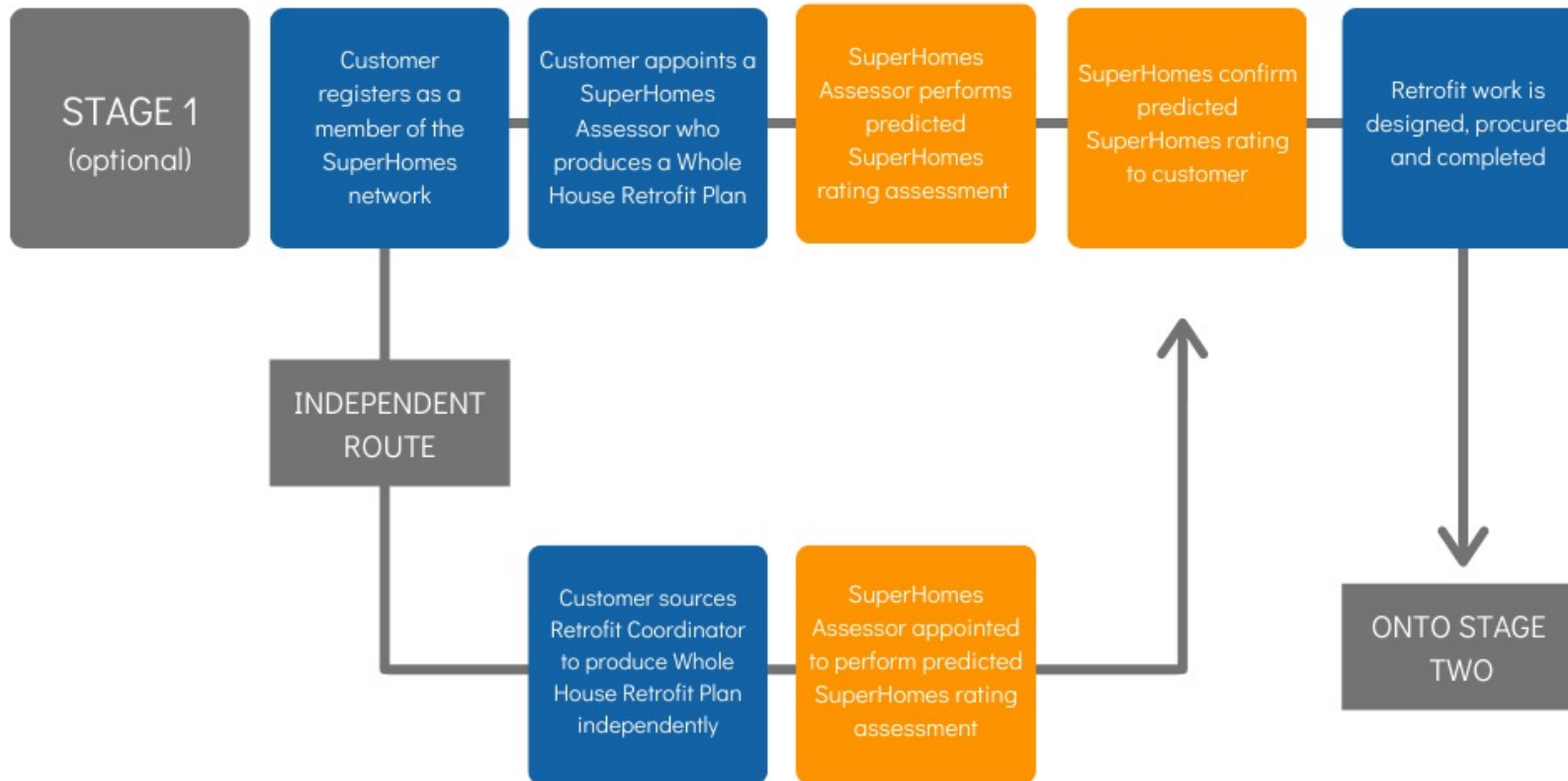


# SUPERHOMES RATING SCHEME



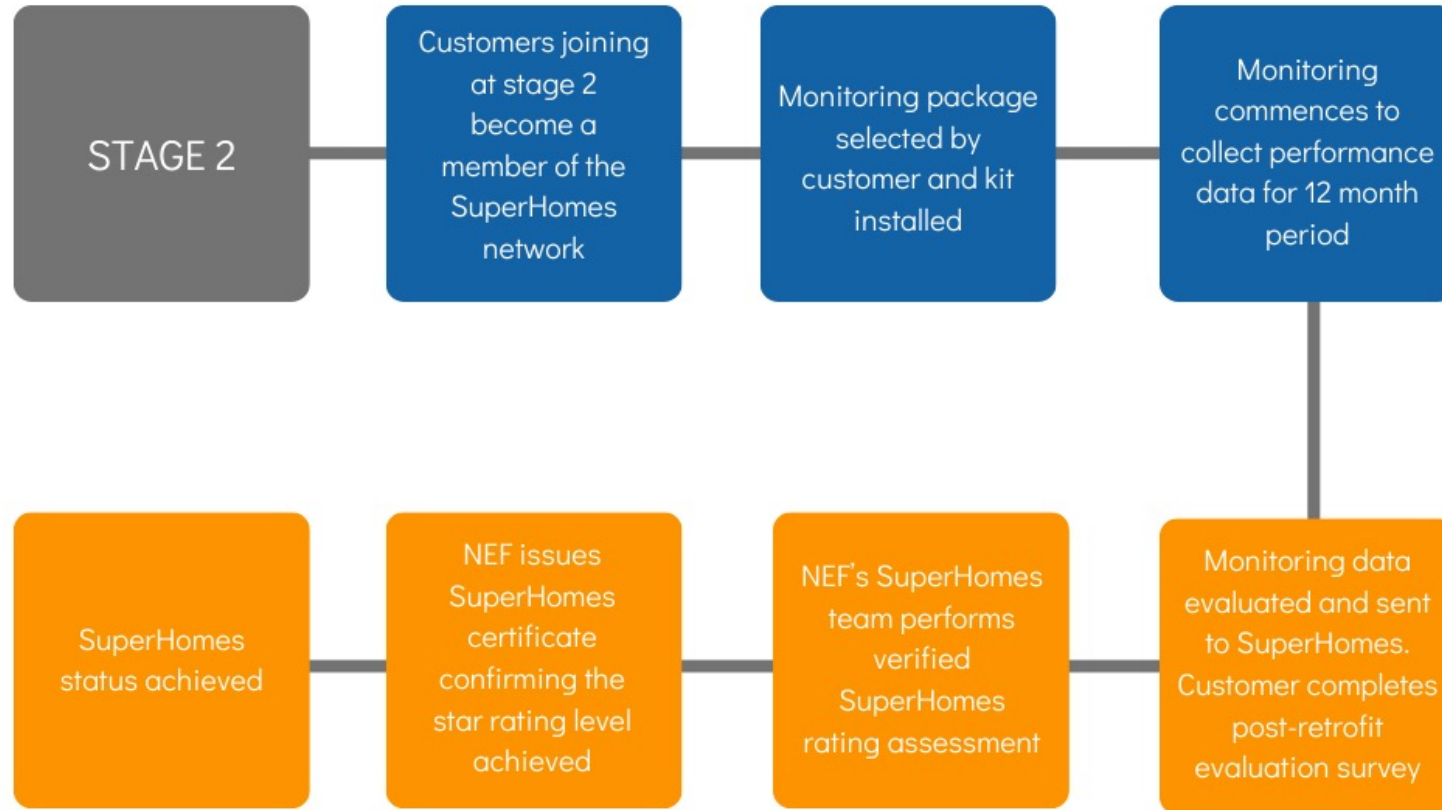
# Customer journey stage 1

## Design phase – Predicted SuperHome Rating



# Customer journey stage 2

## Evaluation phase – Verified SuperHome rating



# The SuperHomes Rating Scheme

## Case study – Swedish Houses

Claire Westron



# Case study



















# Energy and emissions

Space heating demand (core)



Carbon emissions (core)



Running costs (optional)



Energy and emissions criteria aim to deliver a balanced approach to retrofit at each tier

# Case study

## Baseline:

- Walls – timber panel with original wood fibre insulation and previous internal insulation
- Loft – 250mm insulation
- Ground floor – uninsulated, mixture of solid concrete and suspended timber
- Windows and doors – U-value ~3.10
- Electric storage heaters

Metrics	Baseline performance
Space heating demand	110 kWh/m <sup>2</sup> /yr
CO <sub>2</sub> emissions	1.57 tCO <sub>2</sub> /yr
Running costs	EPC 53 E



## Target 3 ☆ ☆ ☆

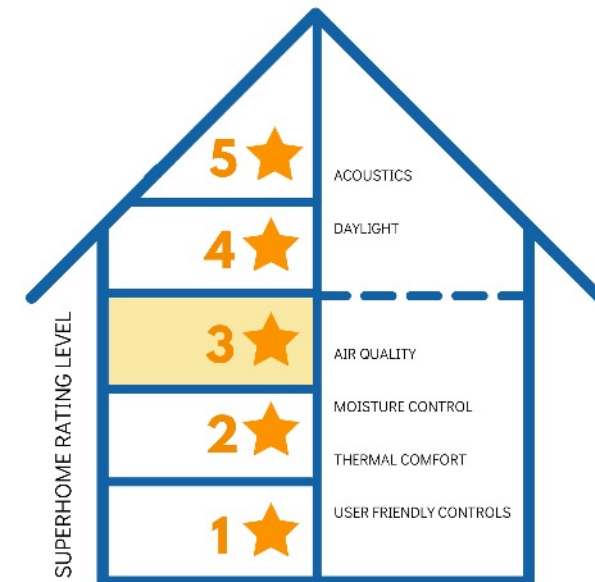
### Fabric

- Walls – additional 60mm insulation to achieve 0.25 U-value
- Chalet bungalow – roof insulation / dormer
- Replacement windows / doors 1.40

### Services

- Air source heat pump for space heating and hot water
- Cylinder upgrade, controls and insulated pipework
- Upgraded ventilation where needed

Metrics	Baseline performance
Space heating demand	80 kWh/m <sup>2</sup> /yr
CO <sub>2</sub> emissions	0.50 tCO <sub>2</sub> /yr
Running costs	EPC 71 C



# Target 4 ☆ ☆ ☆ ☆

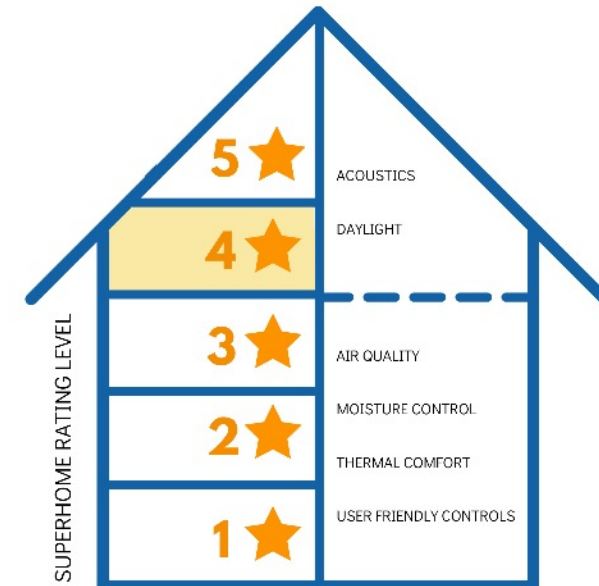
## Fabric

- Ground floor insulation
- Replacement windows and doors 1.20
- Air tightness testing to 8

## Services

- PV 2.00 kWp array

Metrics	Baseline performance
Space heating demand	60 kWh/m <sup>2</sup> /yr
CO <sub>2</sub> emissions	0.20 tCO <sub>2</sub> /yr
Running costs	EPC 83 B



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