



Smart Falmouth

Assoc Prof **David Hawkins** PhD

Associate Dean (Research and Innovation)

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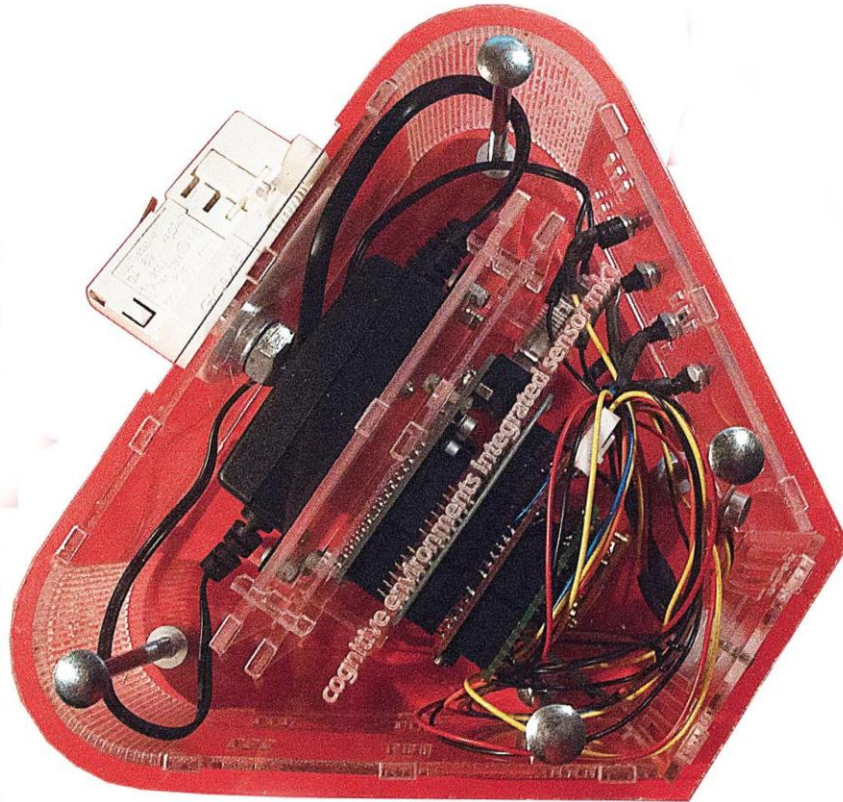
Research and Practice

- Specialist University College with a full range of courses across Art, Design, Media and Performance
- Research themes within the Academy for Research and Innovation of Sustainable Design and Digital Economy
- Current research projects include: Superfast Broadband, Digital Manufacturing, Smart Buildings, Sustainable Transport, Health and Well-being, Digital Crafts, Design Agency, University of the Village
- Located in the far South West of the UK with mining heritage, strong tourism and marine industries, relative geographical isolation, good natural resources, limited industrial capacity

Cognitively Enabled Built Environments

Ian Biscoe (PhD Researcher)
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cognitiveenvironments.wordpress.com

Can the embedding of ubiquitous computing technology into architectural practice and the fabric of the built environment deliver measured improvements in usability, comfort and efficiency?



Bee Research Facility

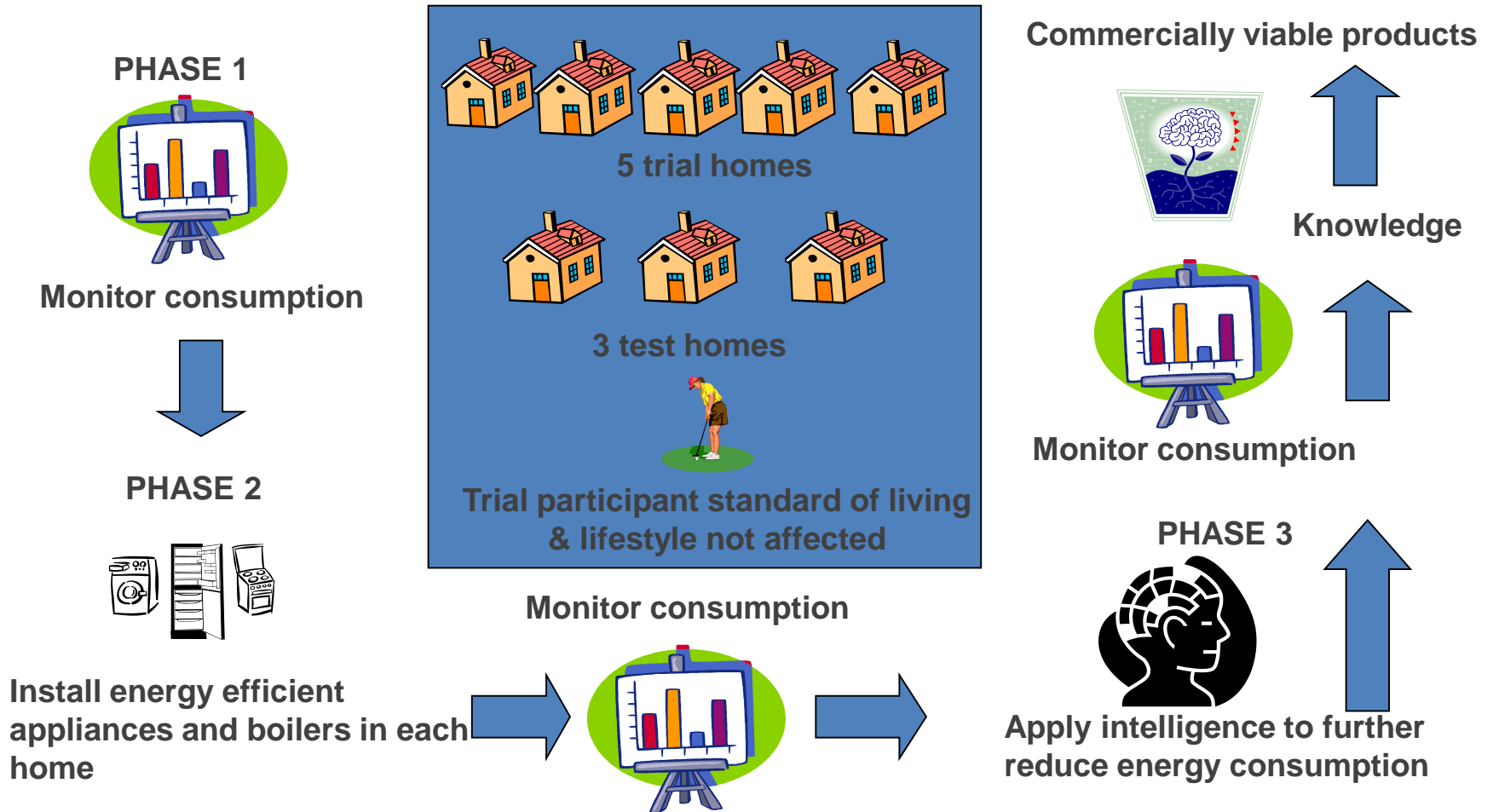
Darkroom environment for natural observation of honey bees
Engineered timber structure with sensing/computing in fabric
Transparent beehives with integrated sensors
All aspects of bee activity and human observation recorded
PhD Research : architecture/ubiquitous computing test bed



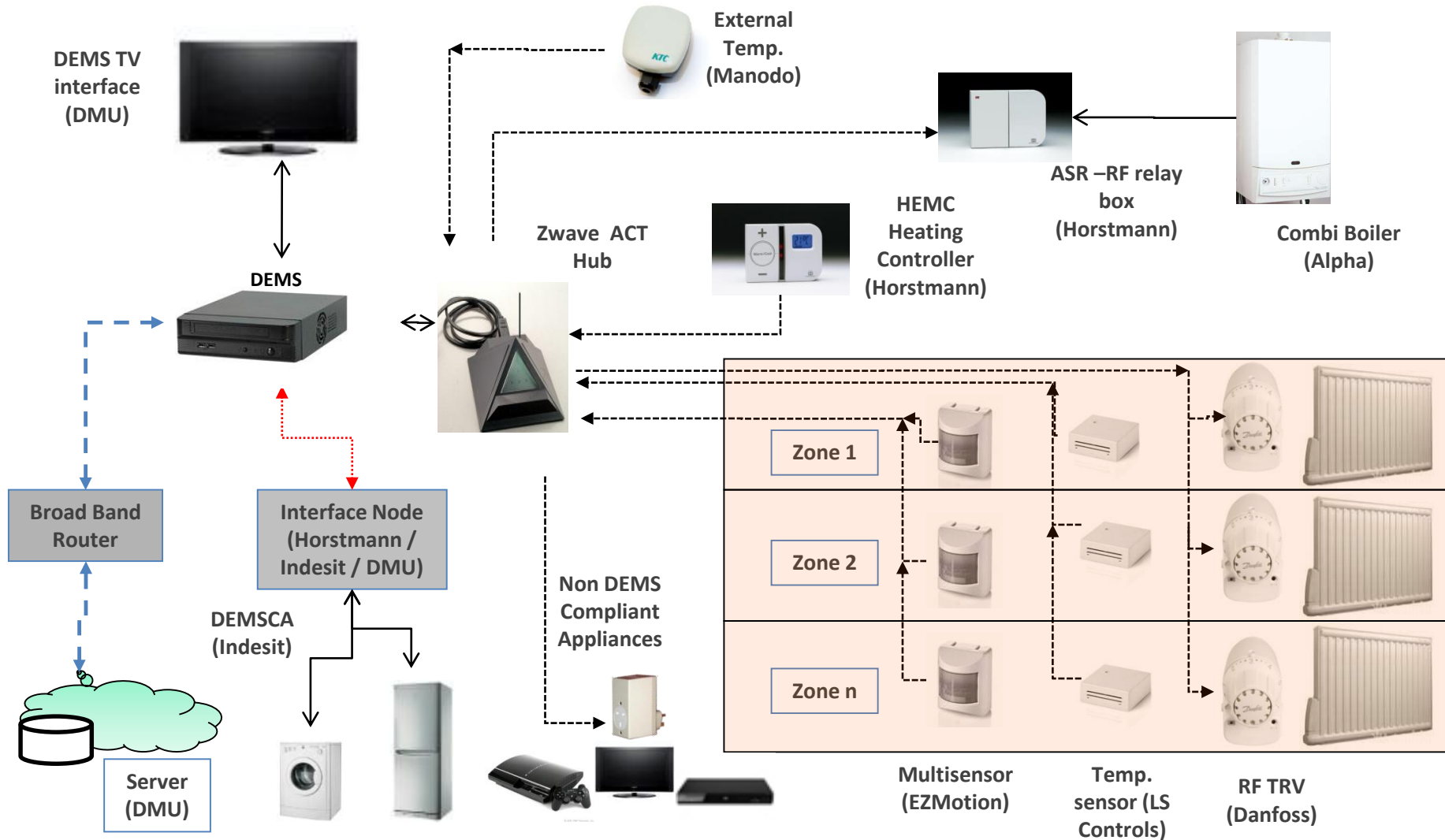
Integrated Wireless Sensor Unit

Environment & Occupant Sensing for PhD Research
Monitors: CO2, Temperature, Humidity, Ambient Light
Audio Levels / Spectrum Analyzer
Area Movement (PIR)
ZigBee 802.15.4 wireless network : configuration/reporting
Mounts directly to industry standard 3-rail lighting tracks

DEMS TRIAL

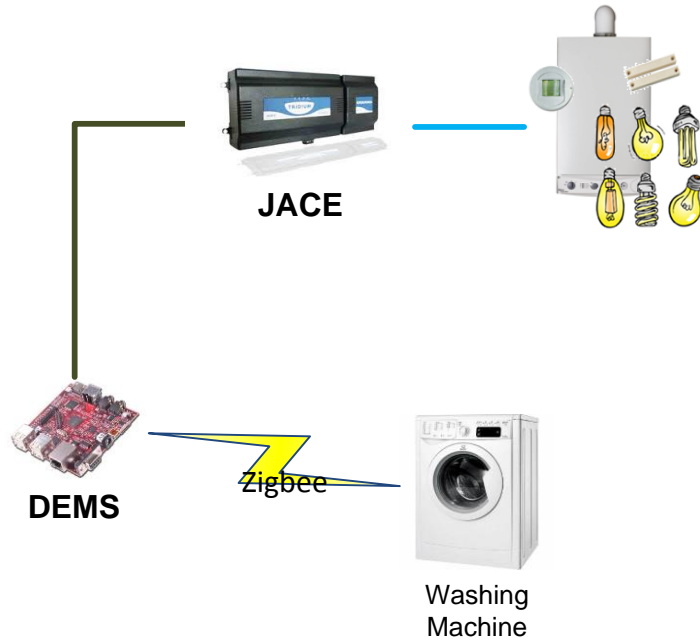


DEMS IMPLEMENTATION

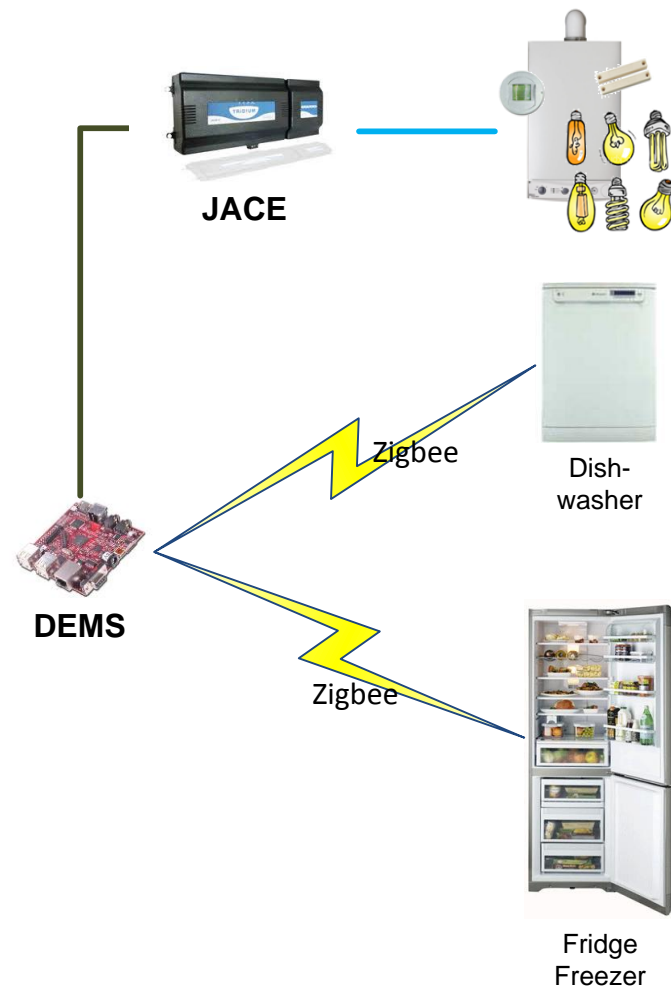


Demonstrator houses at BRE

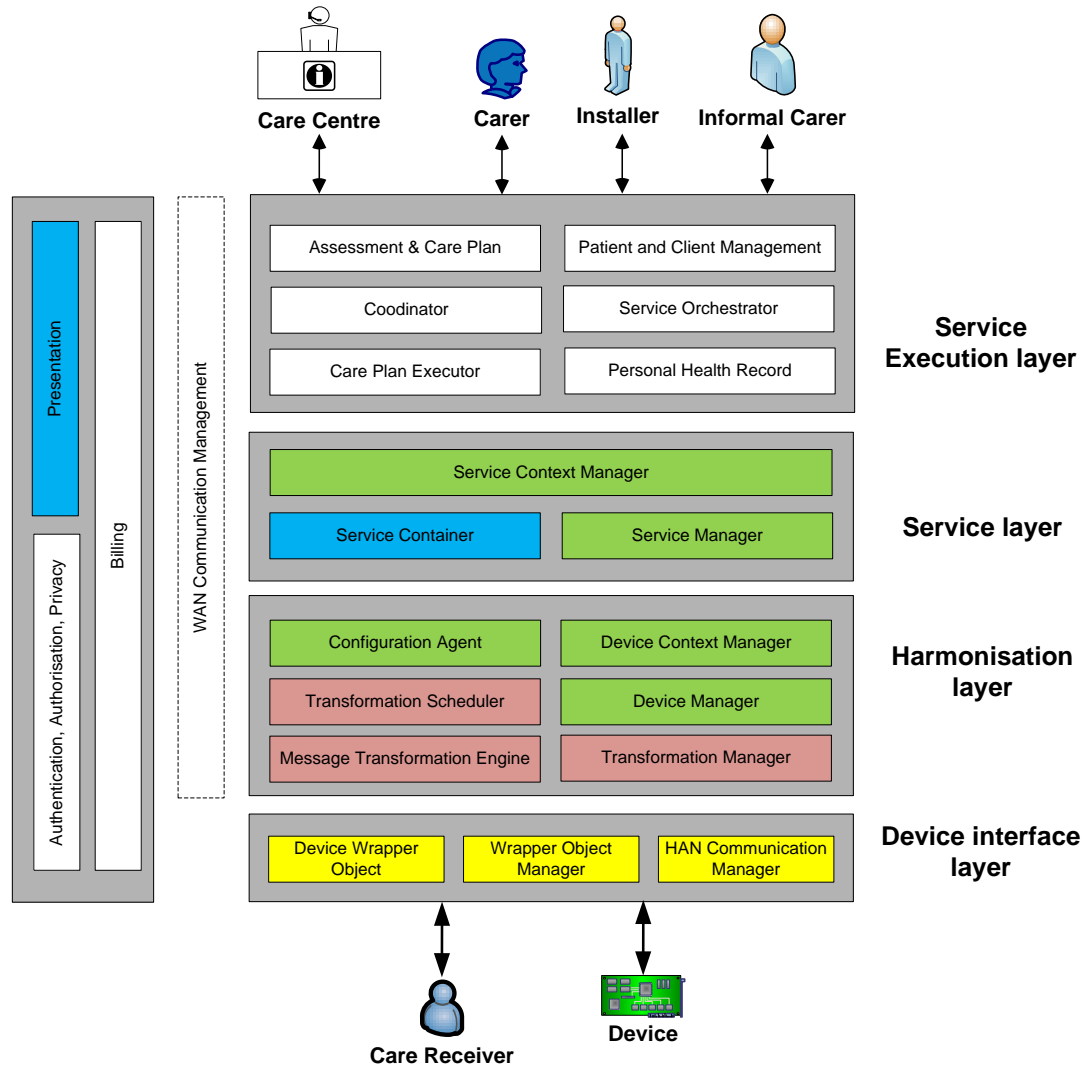
Hanson EcoHouse



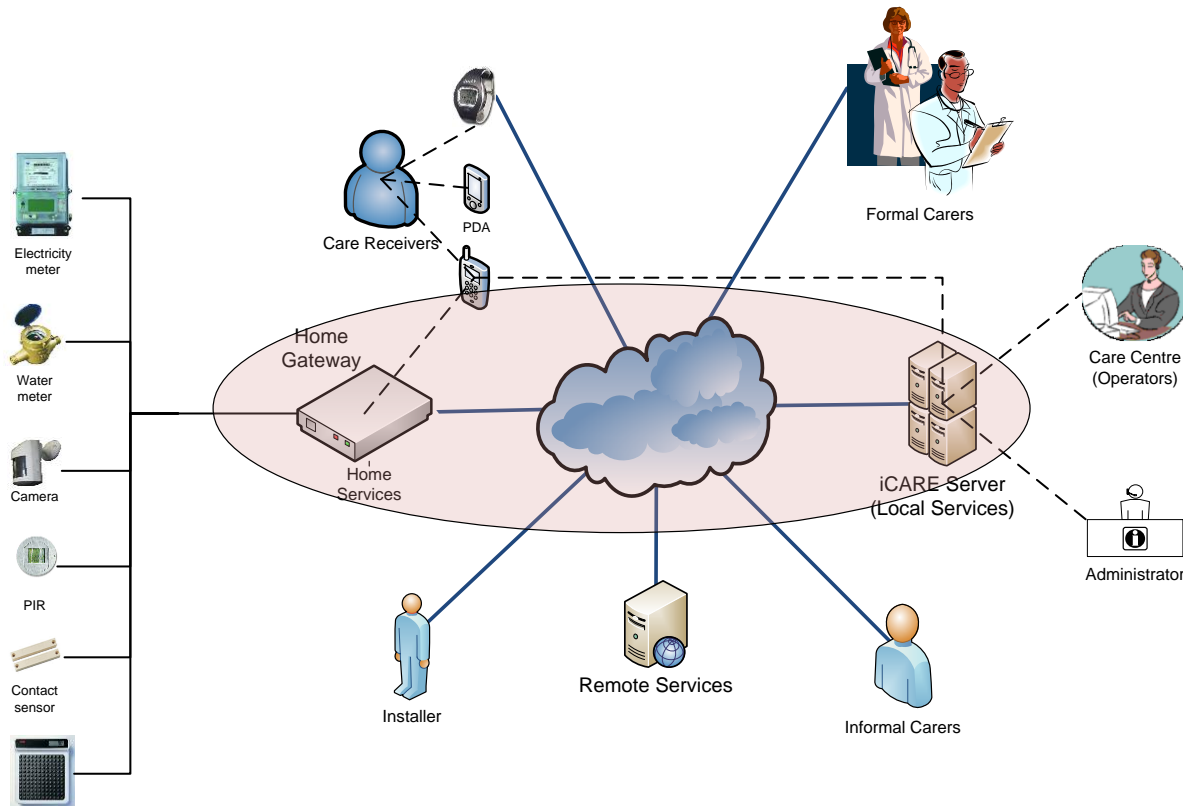
Visitor Centre



SMART HOME OPEN PLATFORM CARE SERVICES TRIAL (ICARE)



iCARE Trial Structure

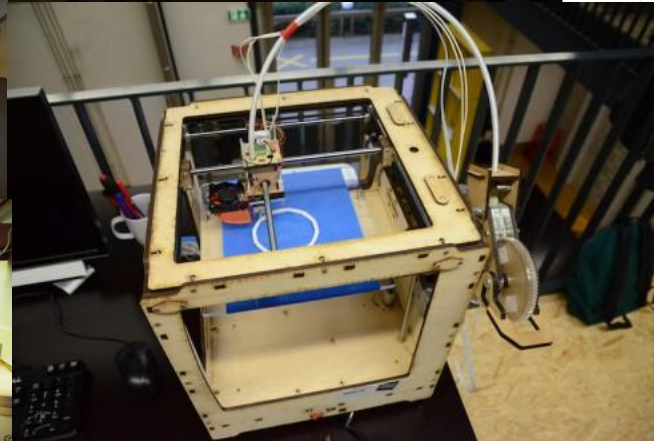




Fab Foundation

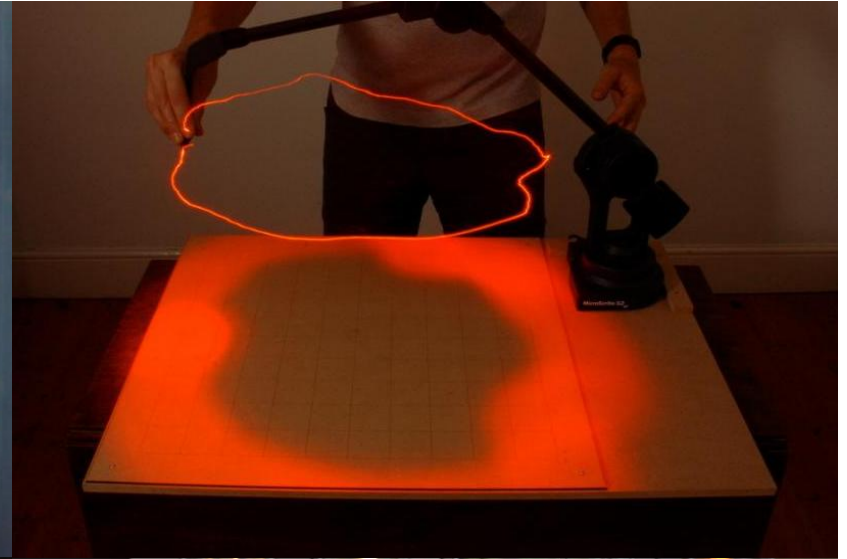
MAIN MENU

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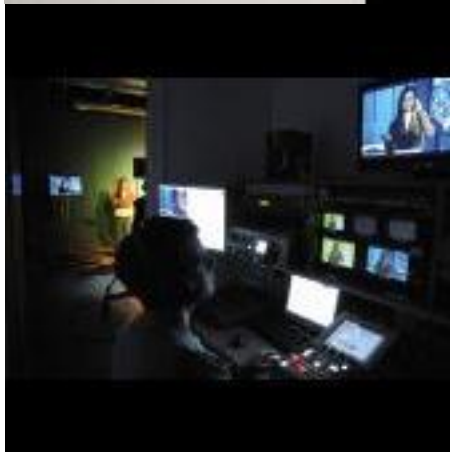


FABLAB NETWORK





5-axis milling, Hacker Space, Mechanical Drawing, etc, as part of digital manufacturing network



Potential areas of interest

- Design of equipment and interfaces – especially with human factors and usability in mind (this includes aesthetic, social and cultural issues)
- Testing and further developing practical integrated approaches:
 - information flow (including uses of broadband)
 - power generation and distribution (energy supply and security)
 - private and public transport, food production (agriculture, horticulture, domestic gardens, co-operatives and local sharing/distribution)
 - digital manufacturing at craft and medium scale for local consumption and distribution (including furniture, products, clothing, artwork, textiles, etc)
 - entertainment and social functions, health and well-being

Further Contacts

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