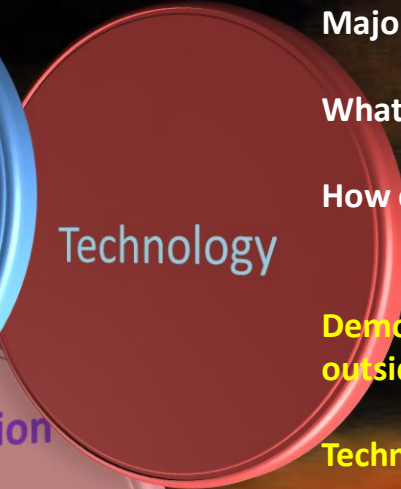# L&Q

Social housing in the 4th Industrial Revolution

Next generation thinking

#CX2019Strategy

BECAUSE HOMES MATTER

The world around us: 3 enduring global mega-trends

Demographics
- Population growth
- Growth in older people in UK

Technology

Globalisation
- Migration
- Climate change
- Populism & consumer voice

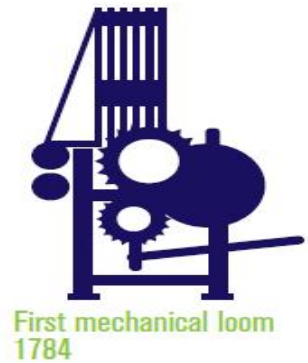Major forces at work:

What impact do they have on their own?

How do they inter-connect?

Demographics and Globalisation are outside our control

Technology isn't

So……..

…how can technology be harnessed for good - so all citizens and communites can thrive, not just survive?

First programmable logic controller (PLC), Modicon 084
1969

4. **industrial revolution**
based on Cyber-Physical Systemss

3. **industrial revolution**
uses electronics and IT to achieve further automation of manufacturing

First production line, Cincinnati slaughterhouses
1870

2. **industrial revolution**
follows introduction of electrically-powered mass production based on the division of labour

First mechanical loom
1784

1. **industrial revolution**
follows introduction of water- and steam-powered mechanical manufacturing facilities

complexity ▲

time ▶

End of
18th century

Start of
20th century

Start of 1970s

today

Source: DFKI 2011

Priority technologies: Gartner 2019

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Actively pursue:

Digital Twin, Blockchain, Smart Cities, AI driven development, augmented analytics, privacy and ethics

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Immersive experience (VR), autonomous things (drones, cars etc)

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Immersive experience (VR), autonomous things (drones, cars etc)

Too techy for now:

Empowered edge, quantum computing

WHATEVER HAPPENS...

IN 10 YEARS TIME....

DIGITAL MUST BE IN OUR **DNA**

The challenges …..

- Compared with the best, the customer thinks we are
  - Providing homes and services of variable quality
  - Cutting our costs to serve, while increasing their cost to live
  - Reactive – solving issues "when reported" rather than solving them so they don't have to be
  - Not giving them much choice
  - Not transparent

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- While inside the organisation
    - We see need increasing with ageing and vulnerable residents increasingly unsupported
    - We have staff performing routine tasks that could be automated
    - We have fragmented and incomplete data
    - We make decisions and have governance processes which are largely analogue
    - We haven't been getting our workforce "digitally fit" for the future

What we build

Principle:
still relevant in a post-singularity world

- Modern materials replace "bricks and mortar"

- Homes built for sustainability : energy!

- Flexible and adaptable

- Is it a home, or a computer we live in?

Homes, but not as we know them

How we serve

Principle:
our reduced cost to serve drives customer's reduced cost to live

- Ubiquitous data drives radical transparency

- Blockchain blurs the line between ownership and rental

- Connected – "anything anywhere" public services

- Predict not react

- Serving the "long tail"

Better : Faster : Lower cost

How we organise ourselves

Principle :
A digital business that has some houses

- Digitally dexterous organisation

- Ethical framework

- Natural collaborator

- Continuous innovation

- Digital leadership

Digital in our DNA

Within 10 years….

How we build and maintain

- Full digital models of all properties on all estates
- All homes linked to "Smart City" services
- All homes energy positive and carbon zero
- Customer choice drives what we build

How we serve

- Wider range of products and services
- Automated and always on experience for customers
- Trusted for relentless delivery of high quality
- Loyalty to brand from "customers for life"
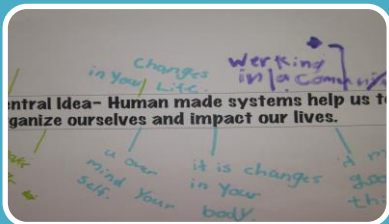
How we organise

- Digitally dexterous workforce and customer base
- Real time data drives decisions
- "think / do" leadership continues to drive innovation
- Artificial Intelligence is present to assist decisions in the Boardroom