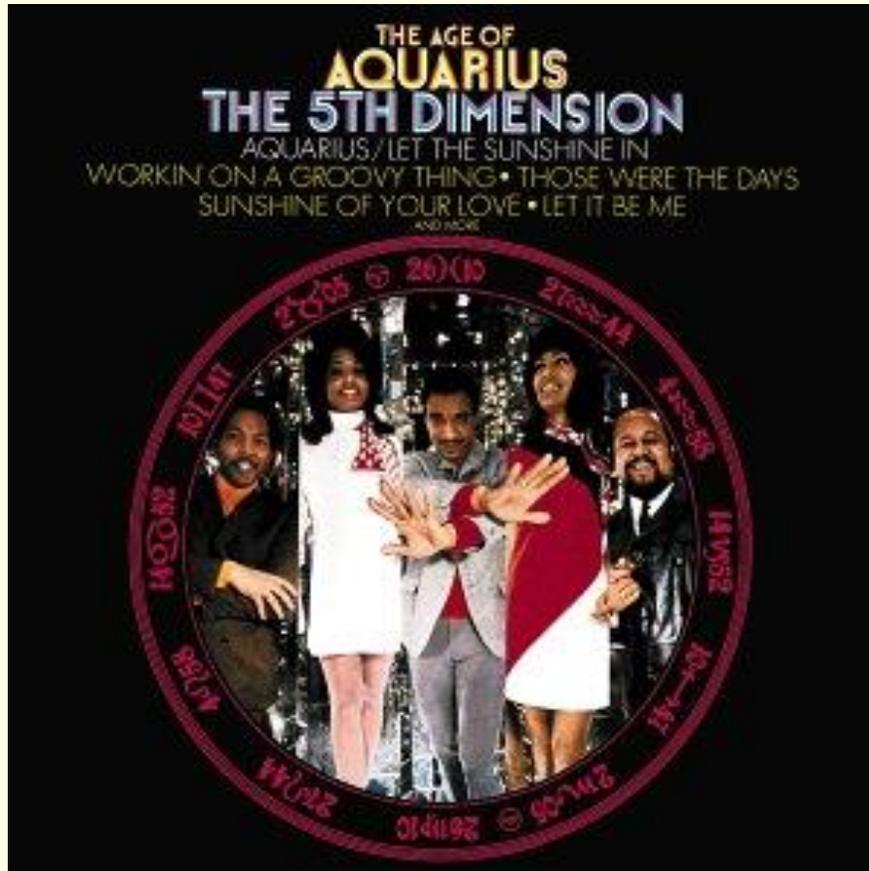


# Low Carbon Retrofit in the Age of Aquarius



- Chartopping 1969
- The lyrics of this song were based on the astrological belief that the world would soon be entering the "Age of Aquarius", an age of love, light, and humanity, unlike the current "Age of Pisces".
- This change was presumed to occur at the end of the 20th century; however, astrologers differ widely as to precisely when.
- [https://en.wikipedia.org/wiki/Aquarius/Let\\_the\\_Sunshine\\_In](https://en.wikipedia.org/wiki/Aquarius/Let_the_Sunshine_In)

<https://www.youtube.com/watch?v=kjxSCAalsBE> – from 16 seconds to 1 min 16 seconds.

# The years of hope for peace, love and the green agenda

Jonathon Porritt, head of Friends of the Earth in the late 1980s, [recalled the galvanising effect Mrs Thatcher had on the green debate](#):

*"Thatcher ... did more than anyone in the last 60 years to put green issues on the national agenda. From 1987-88 when [she] started to talk about the ozone layer and acid rain and climate change, a lot of people who had said these issues were for the tree-hugging weirdos thought, 'ooh, it's Mrs Thatcher saying that, it must be serious'. She played a big part in the rise of green ideas by making it more accessible to large numbers of people".*

But her environmental legacy continued long after she retired. The free market economics that her governments espoused dramatically changed the green face of Britain.

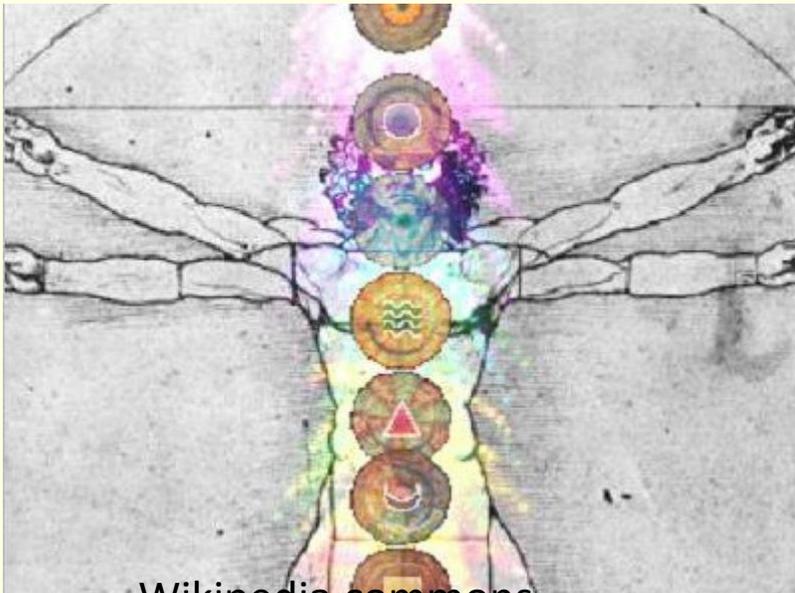
<https://www.theguardian.com/environment/blog/2013/apr/09/margaret-thatcher-green-hero>

- **The 1990s was a decade of grand optimism.** This hope appeared grounded in the Soviet Union's fall, the subordination of Chinese communism to raising living standards and the domestic absence of radical politics. **Many assumed that the future would be peaceful, ever more prosperous and less susceptible to class politics and rebellion from discontented voters.** This mindset so distorted political thinking in Europe and North America that it encouraged reckless risk-taking.

- <https://www.newstatesman.com/politics/uk-politics/2019/08/illusions-1990s-have-been-shattered-decade-still-distorting-world-politics>

# Another definition of the age of aquarius

- Proponents of medieval astrology suggest that the Pisces world - religion - the [opiate of the masses](#) will be replaced in the Aquarian Age by a world ruled by **secretive, power-hungry elites seeking absolute power over others**; that **knowledge in the Aquarian Age will only be valued for its ability to win wars**; that **knowledge and science will be abused**, not industry and trade; and that the Aquarian Age will be a Dark Age in which [religion](#) is considered offensive.<sup>[12]</sup>



Wikipedia commons

**The period of Pisces that we exit from with a focus on materialism, hierarchies, resource acquisition, territory control and empire stabilization**

## TRANSITS TO

**renovation of hierarchies(?), decentralisation, shifting orders, rapid translation, mass mobility, trade networks ..... Information ages that focus on the intellectual, the immaterial and the ideological – but not all good news, as this may not necessarily equate to change in a peaceful manner.**

[https://earthsky.org/human-world/when-will-the-age-of-aquarius-begin/?mc\\_cid=b1ecf0bae8&mc\\_eid=e49f81f916](https://earthsky.org/human-world/when-will-the-age-of-aquarius-begin/?mc_cid=b1ecf0bae8&mc_eid=e49f81f916)

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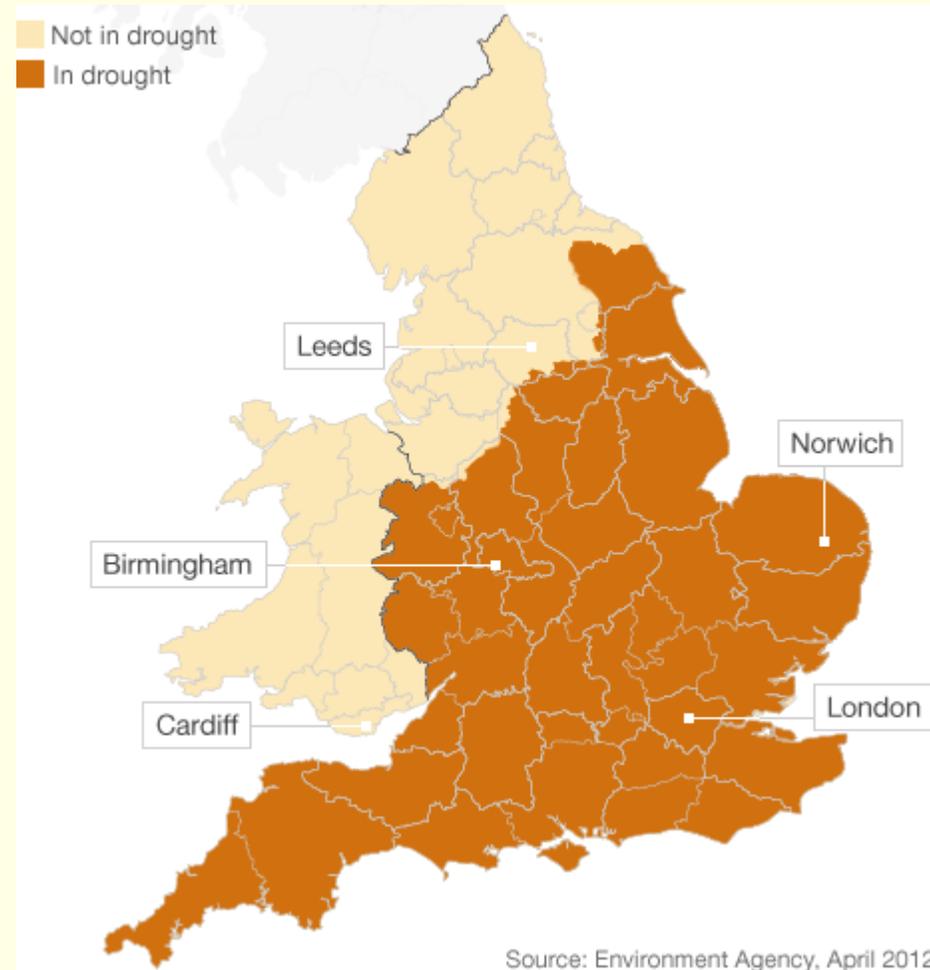
## Technology Is Advancing For The Better

- Aquarius rules futuristic technologies and the future in general. With lucky planet Jupiter in its innovative and forward-thinking realm (and its ruling planet Uranus forming electrifying aspects with almost every major planet this year), **expect lots of technological advancements that serve humanity for the better.**

# UK - 16 April 2012

*“Drought may last until Christmas”*

we are making restrictions on use of water



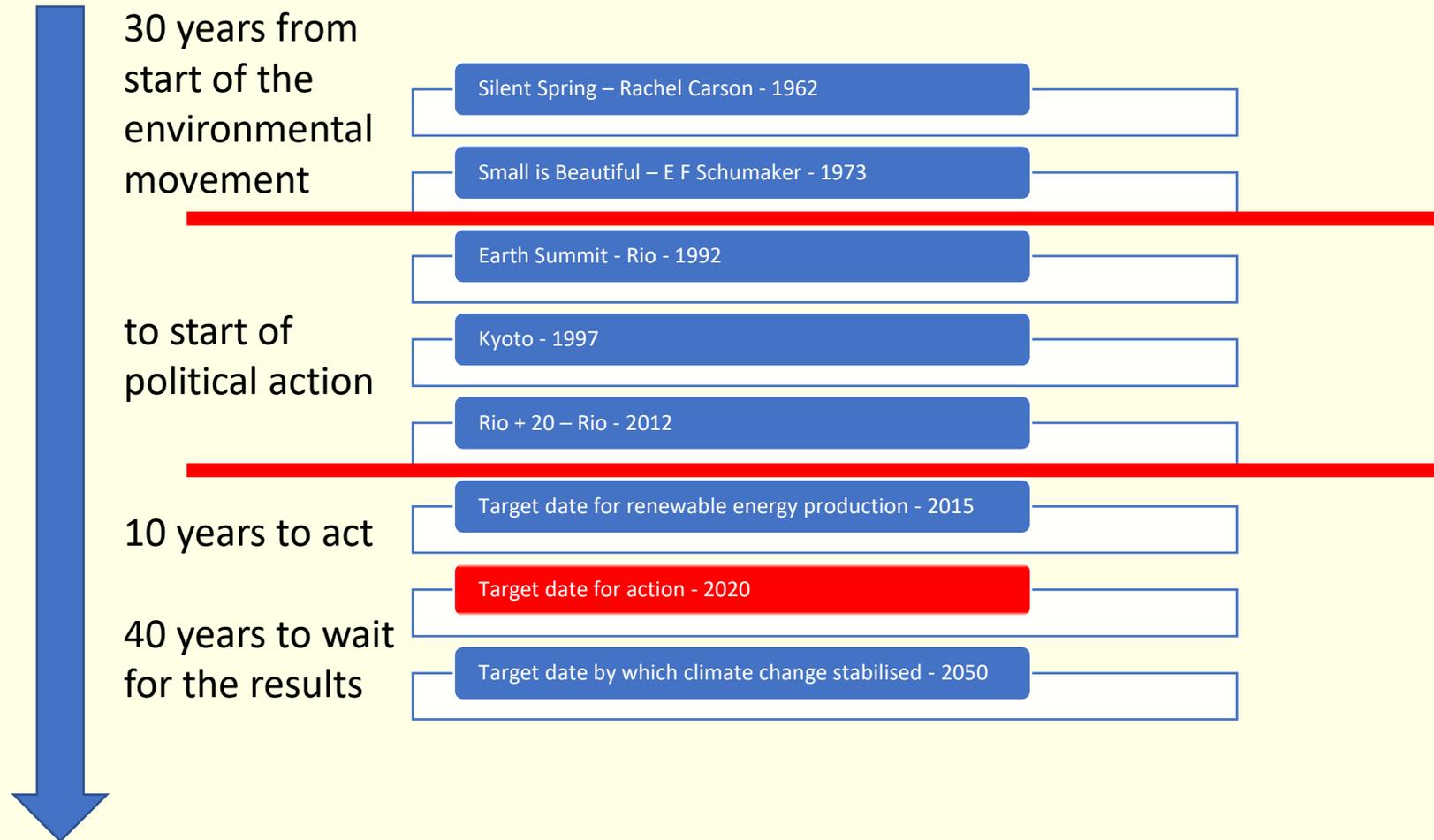
# UK - 11 May 2012

“highest level of monthly rainfall in over 100 years”

so we see climate change = strange and severe weather

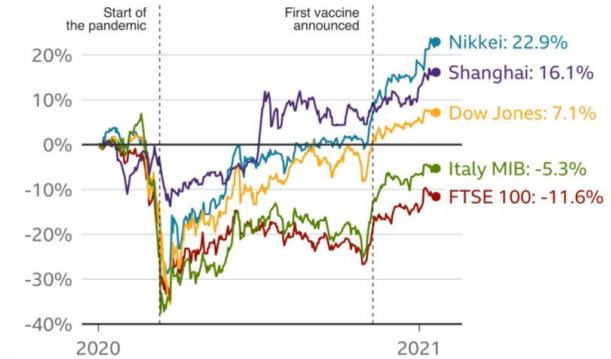


# 10 YEARS TO SAVE THE WORLD! (conference presentation 2016)



# Social justice and planning sustainable futures in an uncertain world

## The impact of coronavirus on stock markets since the start of the outbreak



Source: Bloomberg, 24 January 2021, 00:01 GMT BBC

### More towns evacuated as volcanic eruptions on La Palma intensify

Flights cancelled and firefighters forced to stop work due to shockwave and huge cloud of gas and ash on Spanish island



Residents look from a hill as lava continues to flow from the erupted volcano on La Palma in the Canary Islands in Friday. Photograph: Emilio Morenatti/AP

### How war threatens Ethiopia's struggle against worst locust swarm in 25 years

As surveillance and spraying operations cease due to conflict, there are fears the existing food crisis could worsen



### Yemen



16 million Yemenis 'marching towards starvation': UN food agency



### Climate disasters 'caused more internal displacement than war' in 2020

Refugee organisation says 30m new displacements last year were due to floods, storms or wildfires



Floods caused by heavy seasonal rains destroyed a huge number of homes in Khartoum state, Sudan, last August. Photograph: Anadolu Agency/Getty Images

### Haiti earthquake: Tropical Storm Grace hampers rescue

17 August



Rescue workers in Les Cayes raced to find survivors before Tropical Storm Grace hit



<https://www.theguardian.com/us-news/2021/sep/24/california-wildfires-fawn-fire-shasta-county-evacuations>

<https://www.theguardian.com/world/2021/jul/05/evergreen-ship-that-blocked-the-suez-canal-to-be-released-after-settlement-agreed>

[nebuilding.co.uk/news/construction-materials-shortage](https://www.theguardian.com/news/construction-materials-shortage)

By Jack Woodfield 10 days ago

The construction materials shortage continues to be impacted by a lack of lorry drivers and high construction vacancies



(Image credit: Getty Images)

# The Challenge and Opportunity

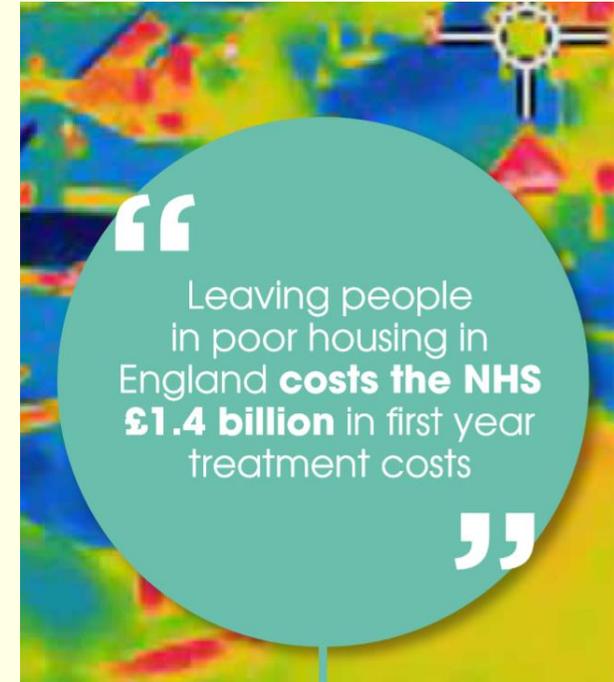


**The UK has the oldest stock and the highest medical costs associated with inadequate housing of any EU member state**

<https://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/SPSW/Housing/2018/delivering-healthy-housing.pdf>

**NOT INVESTING IN ENERGY EFFICIENT HOUSING COSTS BILLIONS EVERY YEAR – AVOIDABLE COSTS WHICH COULD BE REDIRECTED TO INVESTMENT IN ENERGY EFFICIENCY AND NEW ENERGY SYSTEMS**

Even with new housing mental illness, obesity and other health impacts cost an estimated further £18bn.

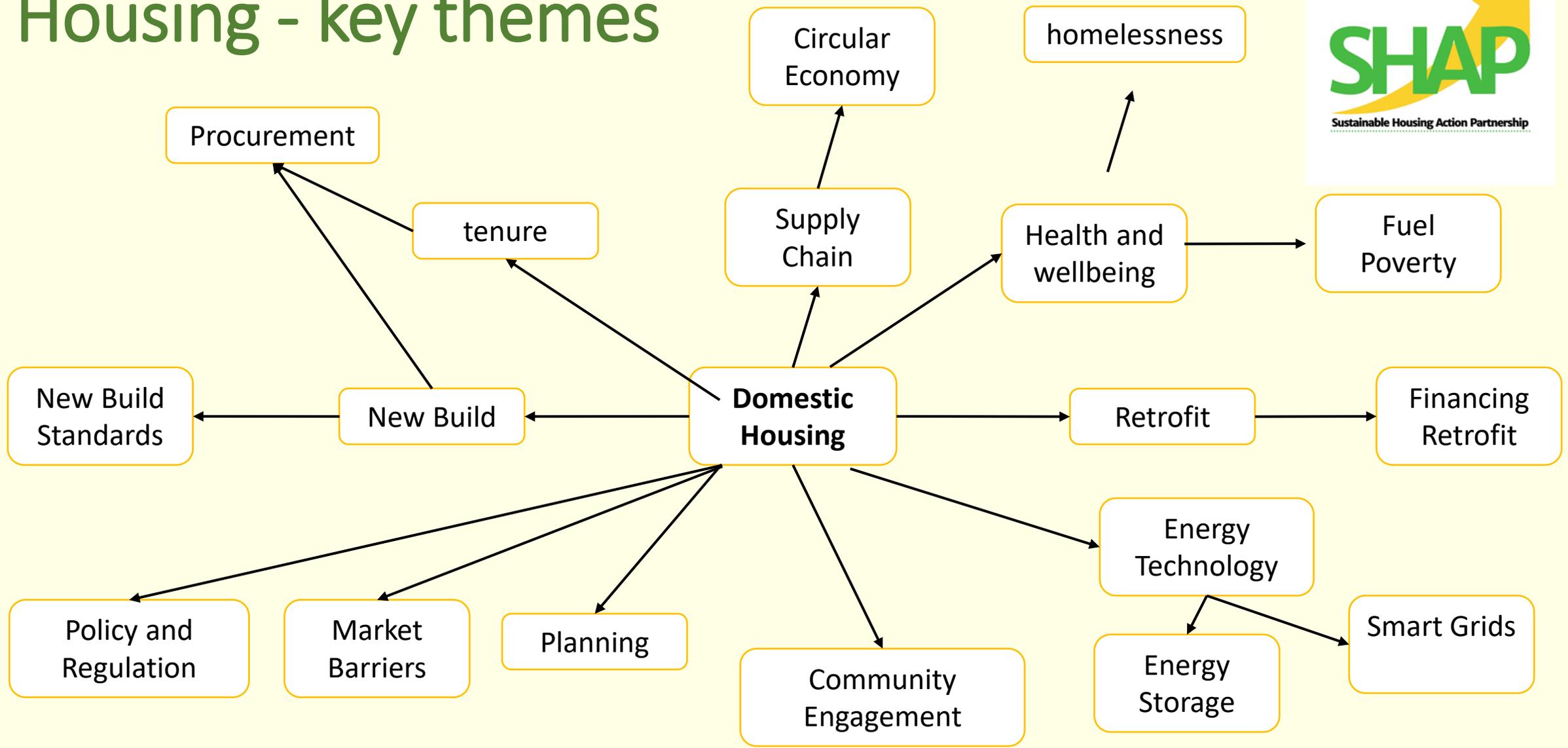


# Evidence Base – job creation



- In the **West Midlands**, retrofitting over 110,000 social houses will cost approximately £3.1 billion. Investment in the Home Improvement Plan would provide an estimated 29,400 jobs.
- <https://www.ippr.org/files/2020-07/all-hands-to-the-pump-july20.pdf>

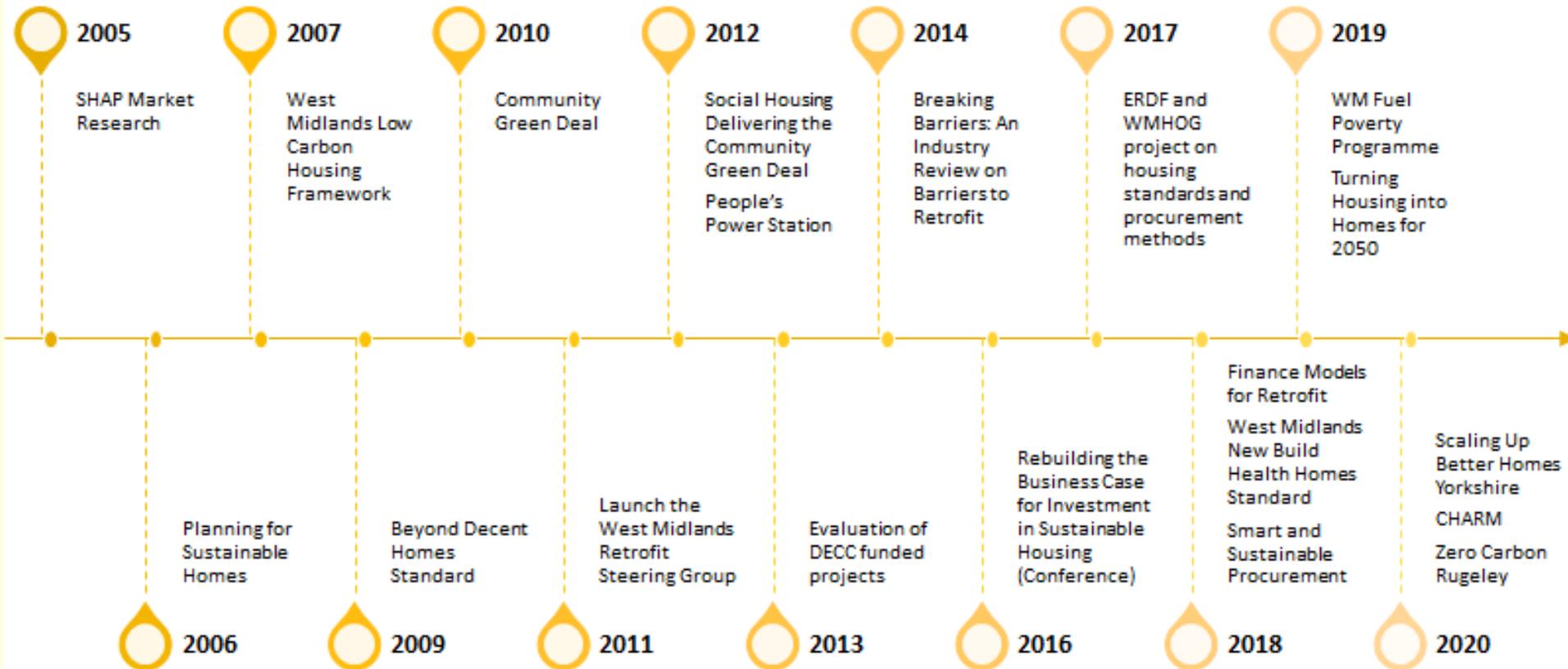
# Housing - key themes



# SHAP research agenda set by Members



## Previous work



# Net Zero for Housing – our experience to date



- The Roman Road
- The scenic route
- The Sat Nav reliance
- The travelator
- The no regrets pathway or path of least regret
- The professional navigator's route



# Experience of scaling up retrofit and 'no regrets pathways' decision-making

- Vision
- Ambition
- Commitment
- Collaboration
- Investment
- Experience
- Expertise
- Budget line in investment spend
- Accelerate stock data collection and analysis



- Costs
- Supply chain capacity
- Fire risk queries
- Cross tenure design solutions
- Timescales
- Compliance
- Competing Issues
- Pipeline
- Planning
- Public consultation/reaction
- Completely unpredictable hazards

# Where to start – the M25?



And here .....

## Commitments we need to make at a national level

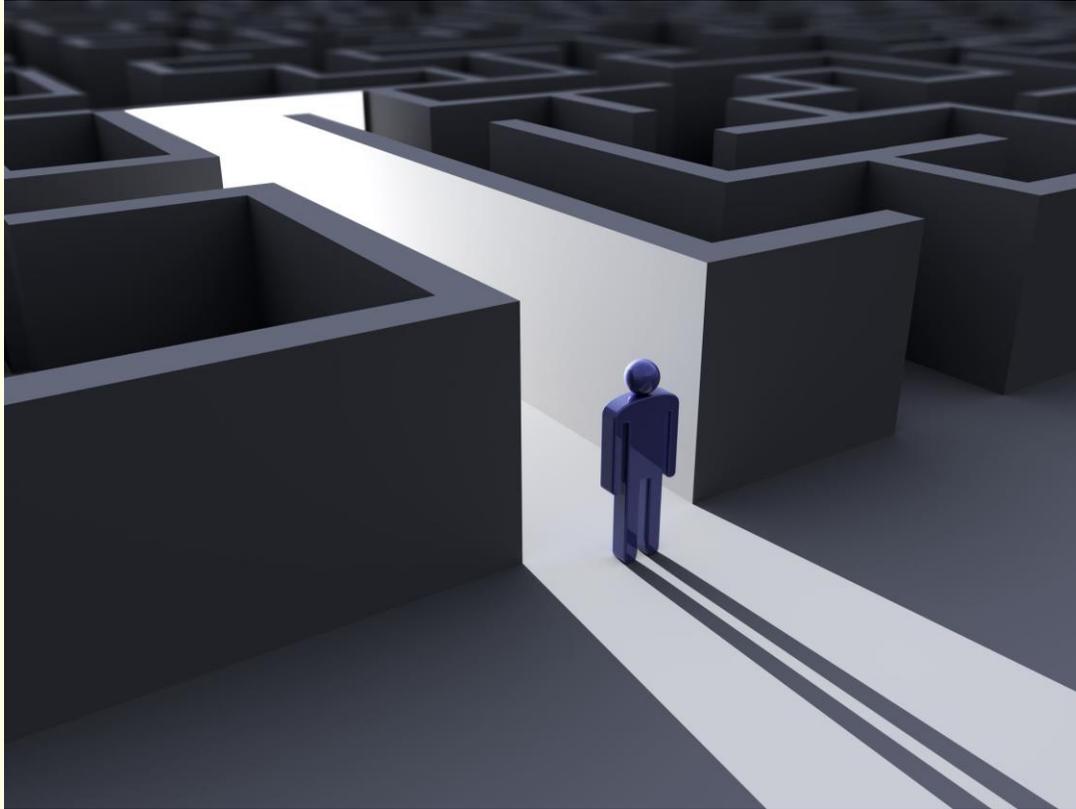
**Regard housing as critical national infrastructure, supporting flourishing communities and plan and resource accordingly.**

- Be clear and understand the tensions – fabric first v grid decarbonisation
- How important are security of supply and eliminating fuel poverty?
- Who pays?

### 10 year programmes

- Resource Local Authority teams to plan, coordinate, collaborate
- Build local supply chains from budget holders, to surveyors, specifiers, installers and maintenance companies
- Build trust with communities and individuals
- Think holistically

# Net Zero for Housing: Which way to turn?



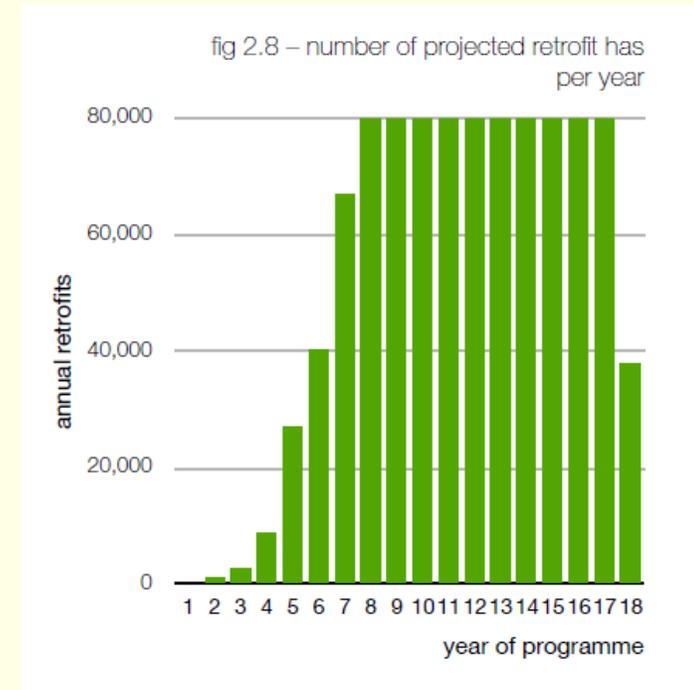
- 1. Information overload**
- 2. Poor data**
- 3. Lack of evidence**
- 4. Changing carbon targets**
- 5. Grid decarbonisation – speed, mix, cost**
- 6. Finance and funding**
- 7. Regulation**
- 8. Time**

“Example - Scaling Up Better Homes Yorkshire” modelling a pathway to net zero by starting small and doubling activity in the early years

- Experience of large-scale programmes, such as Green Deal Communities, indicates that scaling up can create quality control risks around delivery.
- A more managed scaling up minimises this. While this means a slower start, there is also a requirement to develop supply chains and up skill the workforce which can take time
- Figure 2.8 outlines the number of projected retrofit required annually to meet the emissions pathway, whilst taking into account the requirement to mobilise the skills and supply chain
- For West Yorkshire, the number of retrofits completed peaks at 80,000 per year, with almost a million homes completed by 2038, meeting the current WYCA decarbonisation target.

- **Key documents**

- <https://shap.uk.com/shap-projects-page/scaling-up-better-homes-yorkshire-2/>
- <https://shapuk.files.wordpress.com/2020/12/wyca-final-report-1.pdf>
- <https://shapuk.files.wordpress.com/2020/12/wyca-appendices-1.pdf>



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