

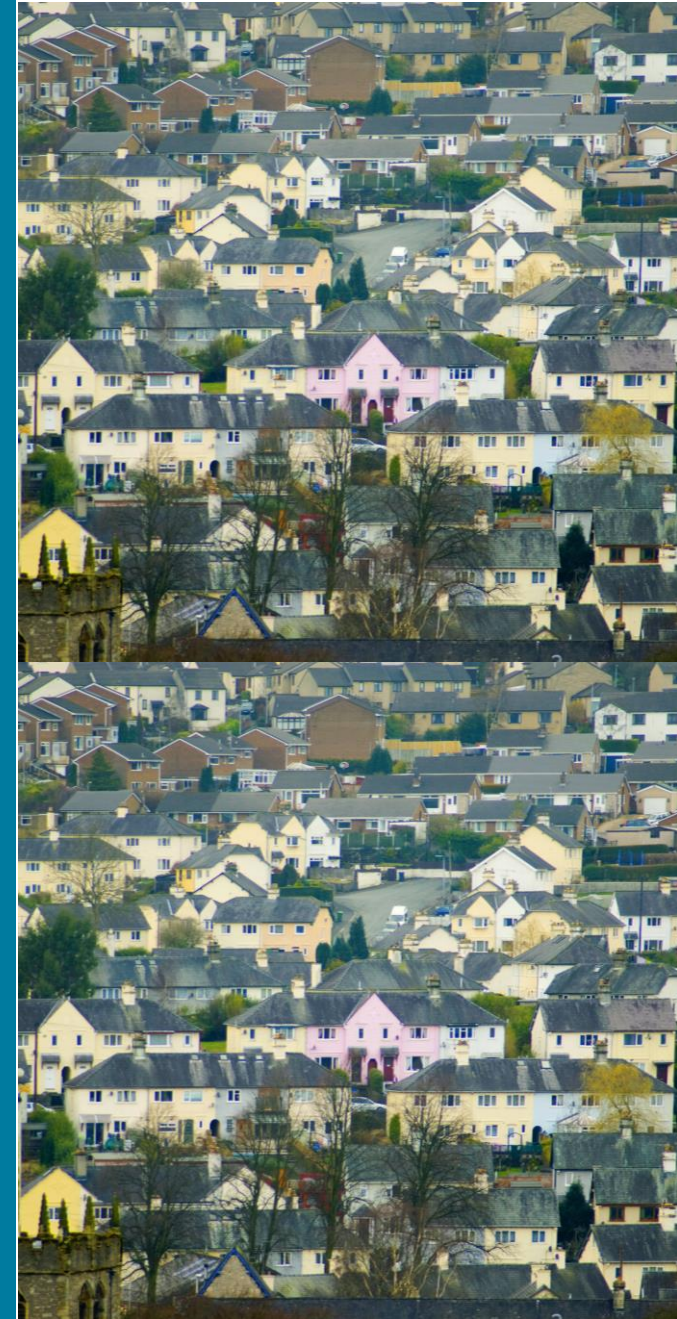
Environmental *Change* Institute



Retrofit Salary Sacrifice:

A financial incentive to help decarbonise owner occupied houses.

Marina Topouzi



What is the problem to solve

Problem

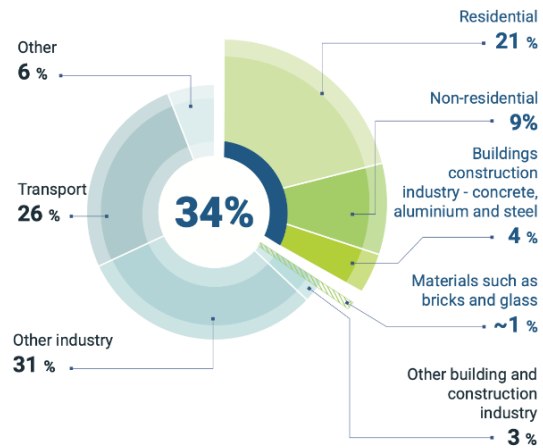
Decarbonise the building sector



Part of the Solution

Improve the building stock

Global share of buildings and construction final energy demand, 2021



2022 GLOBAL STATUS REPORT FOR BUILDINGS AND CONSTRUCTION, Source: <https://globalabc.org/our-work/tracking-progress-global-status-report>

7 -12 years left

“The decarbonization and sustainability transition of the built environment remains “not on track”.

United Nations Environment Programme 2022

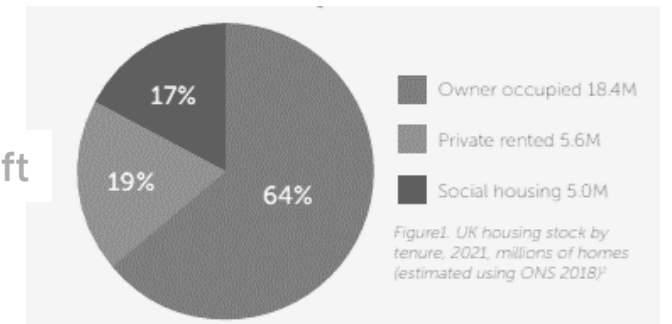


Figure 1. UK housing stock by tenure, 2021, millions of homes (estimated using ONS 2018)

Source: CREDS- <https://www.creds.ac.uk/building-on-our-strengths-transformation-to-energy-retrofit/>

Policy(ies) that create DEMAND for RETROFIT uptake

Barriers to Retrofit

Engagement, outreach, targeting



Awareness and Trust of the retrofit process



Supply Chain capacity and skills



Policy to create a long-term market for retrofit

Policy consistency, Regulation and standards



Finance and Incentives to retrofit



Finance and fiscal measures



Developing a financial incentive for retrofit



Flexible working: A great opportunity to improve our home-office environment and increase multiple benefits

Home > News & blog > Blog > Flexible working: A great opportunity to improve our home-office environment and increase multiple benefits

18 January 2022

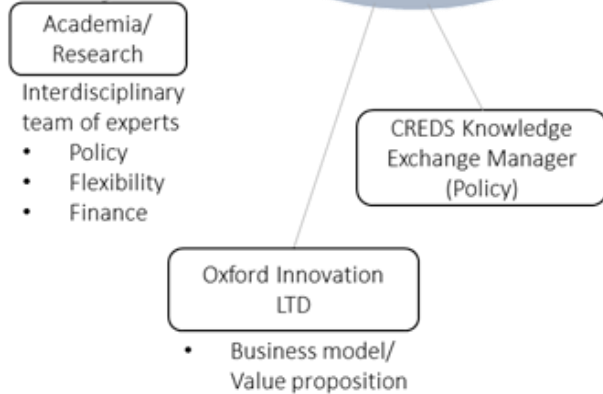
Marina Topouzi
Peter Mallaburn
Tedd Mose

Reading time: 5 minutes

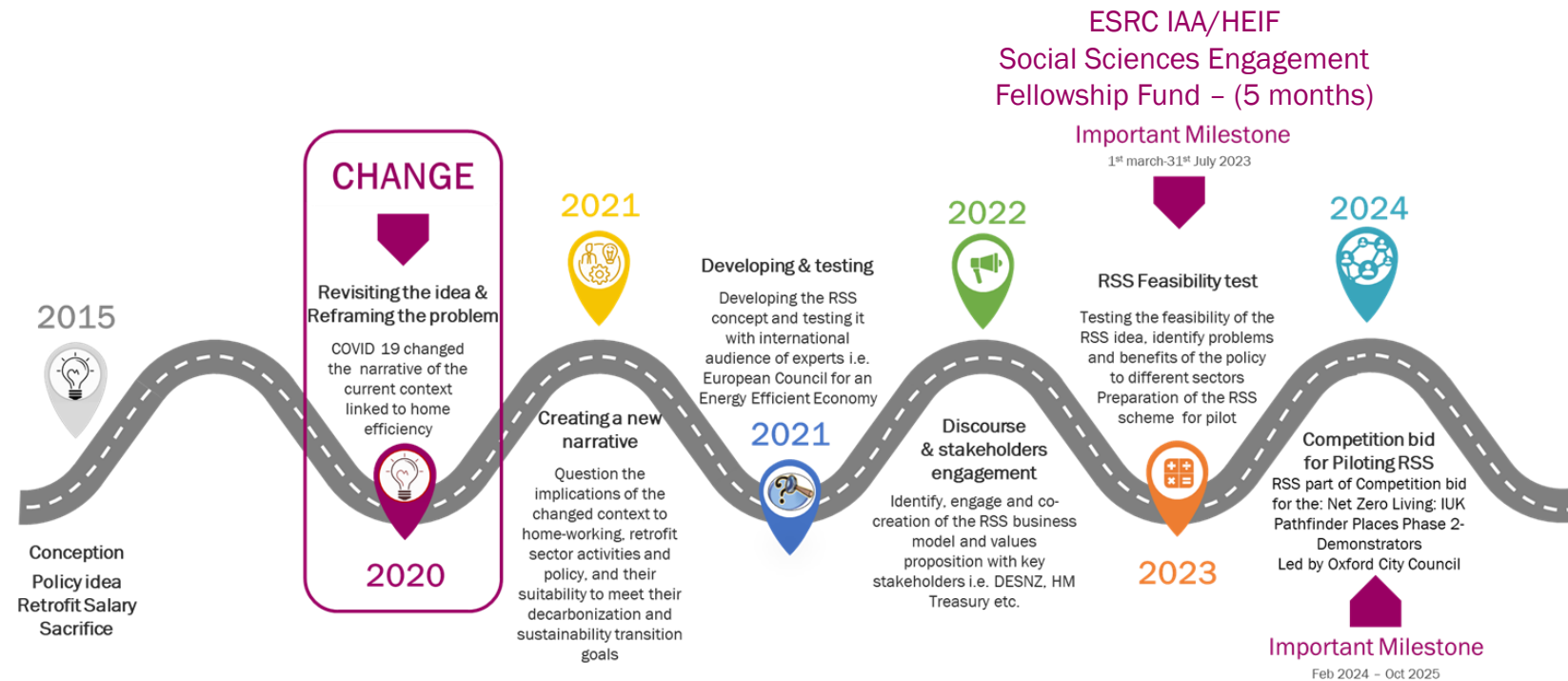
In the last ECEEE 2021 Summer study Marina Topouzi and Peter Mallaburn presented the Retrofit Salary Sacrifice scheme – an innovative idea they developed for a financial retrofit incentive. Here, together with Tedd Mose they look at it through the lens of multiple benefits in terms of equality and legal implications in policy.

What does 'flexible working from home' mean?

The Covid-19 pandemic has fundamentally reshaped the ways in which people work. Working from home



Retrofit Salary Sacrifice scheme



Changes in context related to Home Efficiency



Working patterns increased WFH

change in **working patterns** increasing working from home



Energy security concerns

geopolitical change war in Ukraine changed energy security



Climate change

extreme temperatures change **building performance, comfort, efficiency & fuel costs**



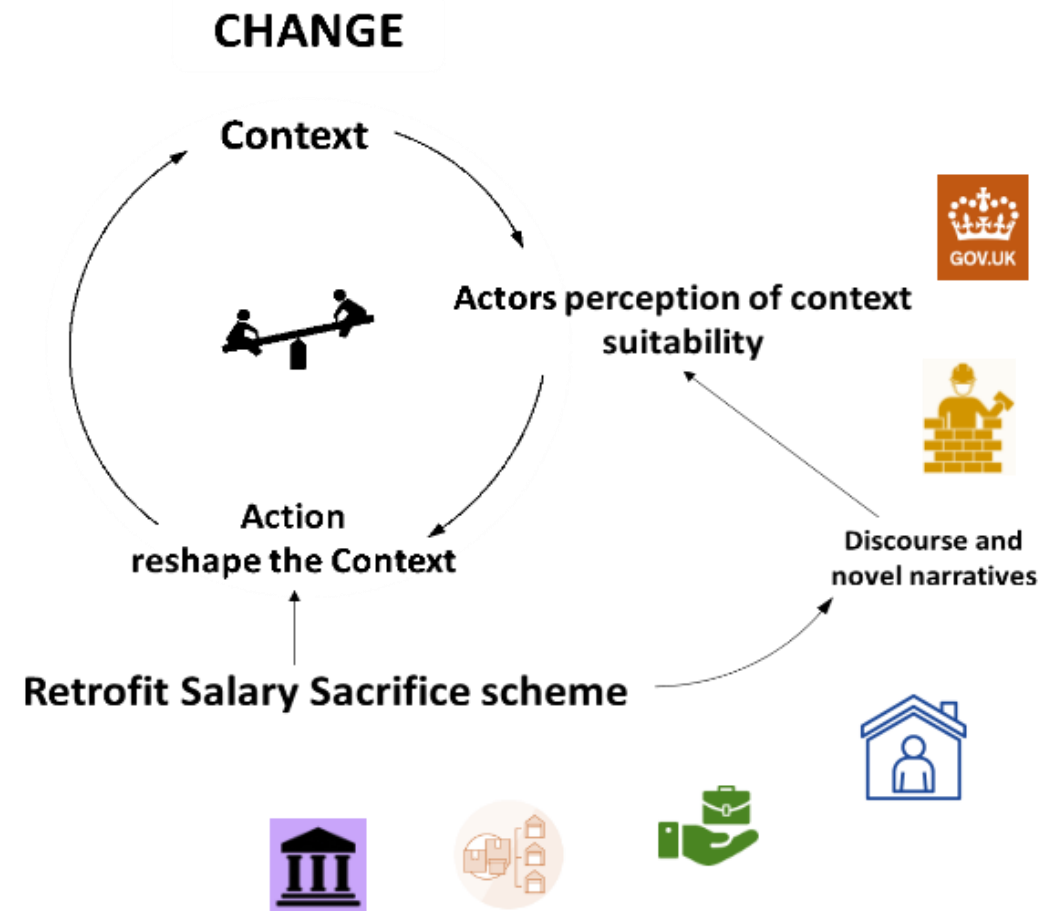
Construction industry challenges

change in **retrofit standards, retrofit professionals** and 'culture change' to meet at speed, scale and quality retrofit targets



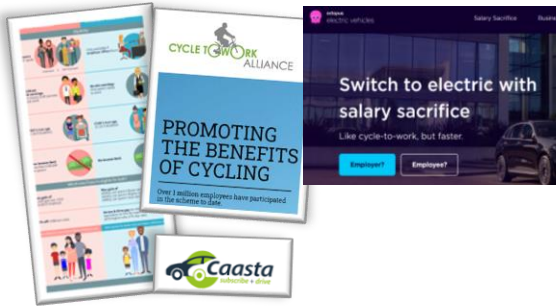
Risks of lending

change in **interest rates**, less flexible financial products



Rationale: Retrofit Salary Sacrifice scheme

Successful salary sacrifice schemes



UKGB 2013 one policy solution to tick all boxes and solve the problem of the whole housing sector



Green Finance Institute 2020

lending product for owner-occupied with a number of potential delivery partners

problem



create demand for retrofit uptake

What is different:



DEMAND

Working From Home



TRIGGER

Retrofit & RMI

(owner occupied housing sector)



Salary sacrifice scheme:

employees getting a loan through their employer for **home energy improvements**, which is repaid via **gross salary contributions**

Why RSS is different ...

....'able-to-pay' doesn't necessarily mean 'able-to-retrofit' if there isn't any incentive and support in customer's retrofit journey (BEIS, 2021a)

A. Builds on

- Government's Net Zero objectives without raising taxes
- Salaried 'able-to-pay' homeowners for flexible 'future work' patterns
- Existing retrofit services (OSS-CosyHomes), and mechanisms for quality assurance of works and price control of suppliers (PAS), and retrofit roles (and accredited installers (Trustmark))

B. Prioritises

- Evaluation & 'understanding-first' the existing building condition, and Retrofit and Repair Maintenance & Improvement (RMI) planning

D. Facilitates

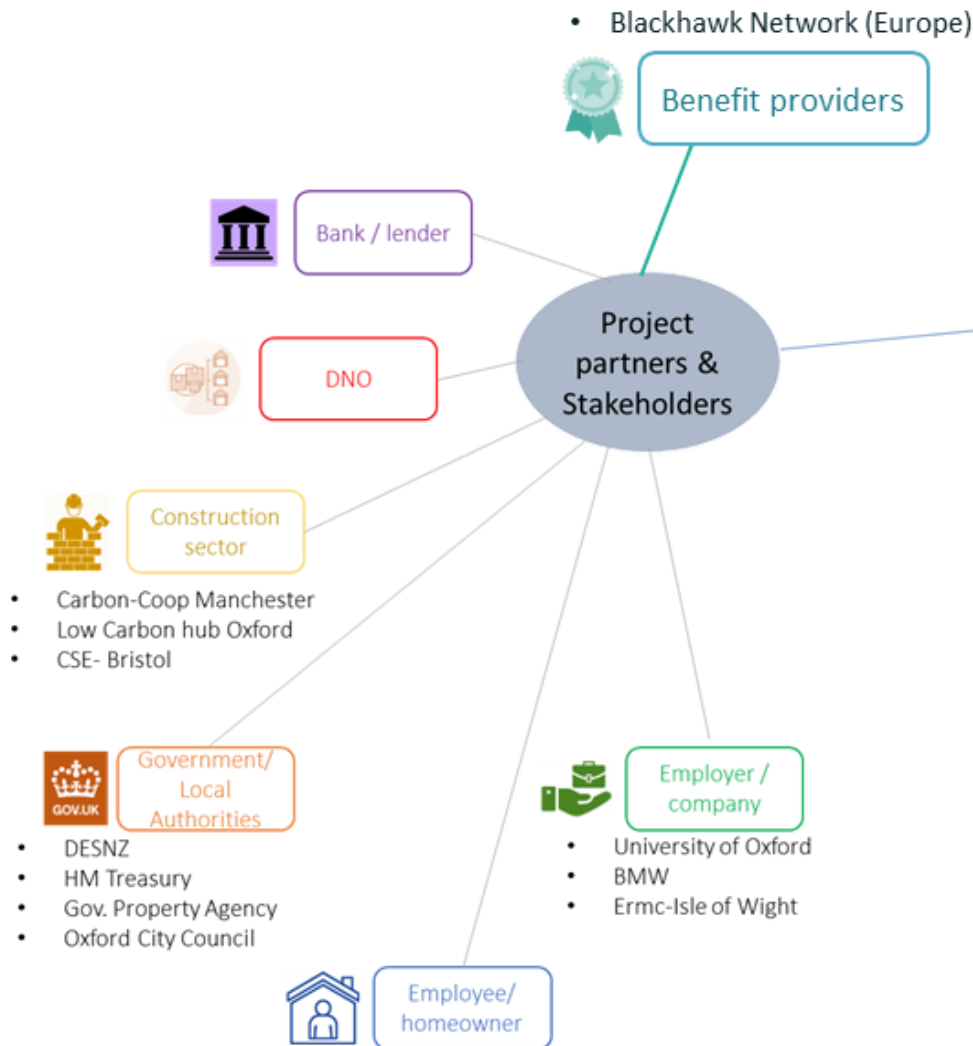
- Access to retrofit planning advice and finance with customer/employee centred 'service' for retrofit and RMI
- Investment in retrofitting without upfront costs and without affecting credit scores

C. Creates

- New narratives for home efficiency and trigger for 'home-office' improvement
- New narratives on employment relationships
- New narrative for employers addressing Scope 1-3 of their direct/indirect carbon emissions
- Leverage for additional demand for retrofit 'service' and professionals/roles

Testing the feasibility of the RSS idea

ESRC IAA/HEIF
Social Sciences Engagement Fellowship Fund
(March 2023 5 months)



Research question

“How can working from home (WFH) arrangements between employers and employees stimulate the demand for retrofit measures in private-owned homes?”

Data Collection:

- Online survey to 5 stakeholder groups (n=70).
- Half-day online workshop (n=18).
- One-on-one conversations and meetings (n=45).

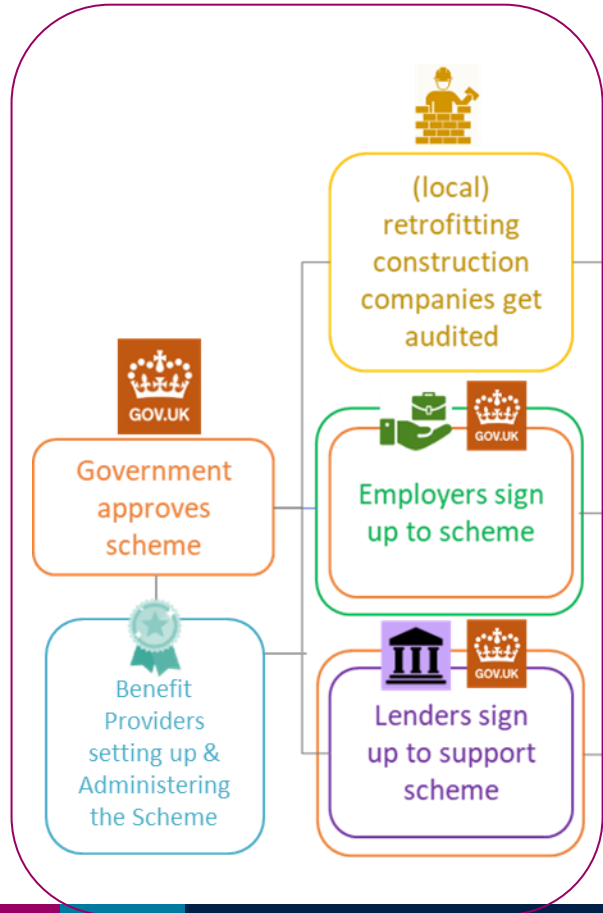
Key areas explored:

- identify **where value** will be delivered by RSS and to **which sectors/stakeholders**
- what **additional benefits/barriers** are associated with these value streams
- how do these **benefits/risks** compare with alternative interventions

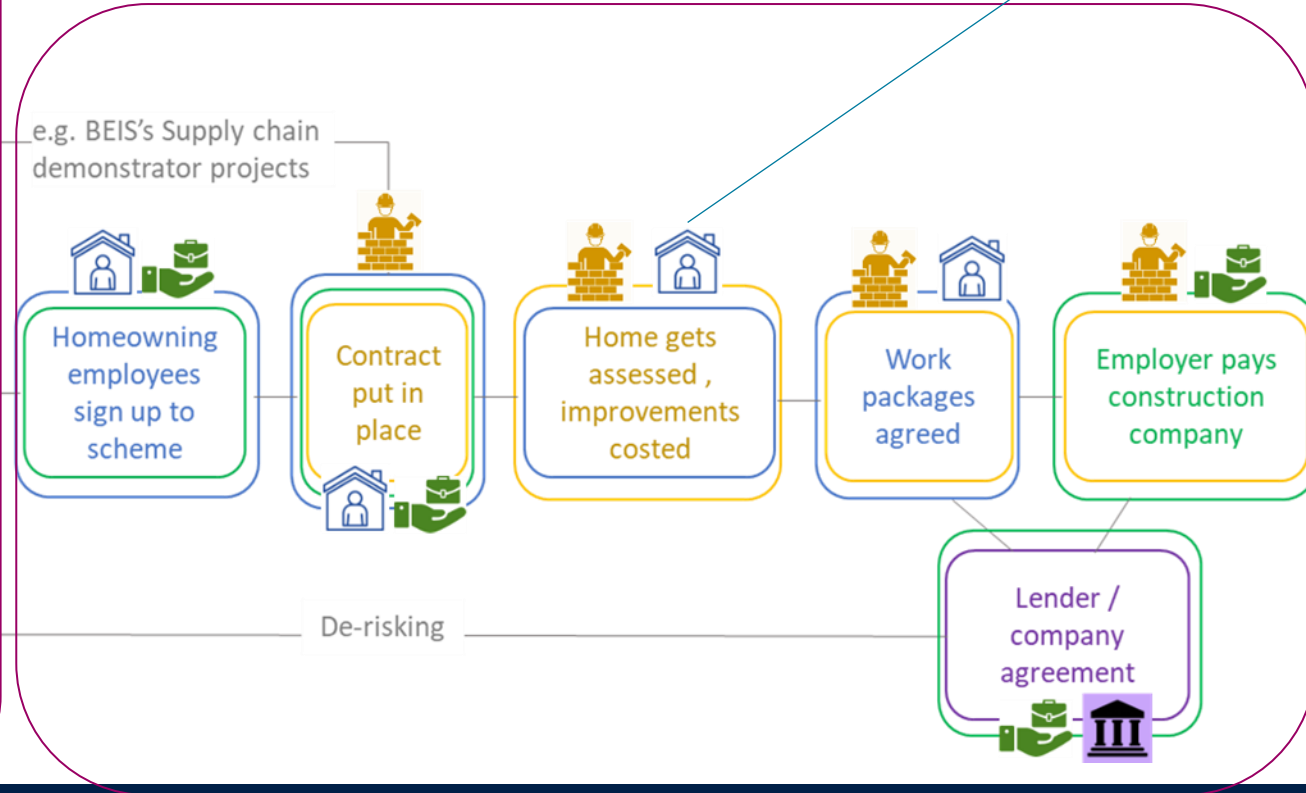
Retrofit Salary Sacrifice business model

Examples of application	Capital cost band £	Cost of measure (£)	Total gross cost/ Monthly gross salary reduction	Term (months)	Total lower rate (20%) tax payer cost/ NI rate based upon 13.25%	Total higher rate (40%) tax payer cost/ NI rate based upon 3.25%	Disruption band	Additional funds
Home assessment & Whole House planning	Up to £100 £100- £1000	£100 - £500	(£100) £8.33	12	£5.56	£4.73	Low	No
			(£500) £41.67		£27.81	£23.65		No
Triple glazing patio doors (U=1.0)	£5000- £10,000	£5300	£294.44	18	£196.54	£167.10	Low	No
MVHR installation			£5000		£277.78	£185.42		£157.64
Flat roof insulation(U=0.15)	Over £10,000	£5800	£322.22	18	£215.08	£182.86	Low	No
Ex wall insulation(U=0.3)			£6200		£258.33	£172.44		£146.60
Heat-pumps		£7,000- £10,000	£416.67	24	£278.13	£236.46	Low	Yes

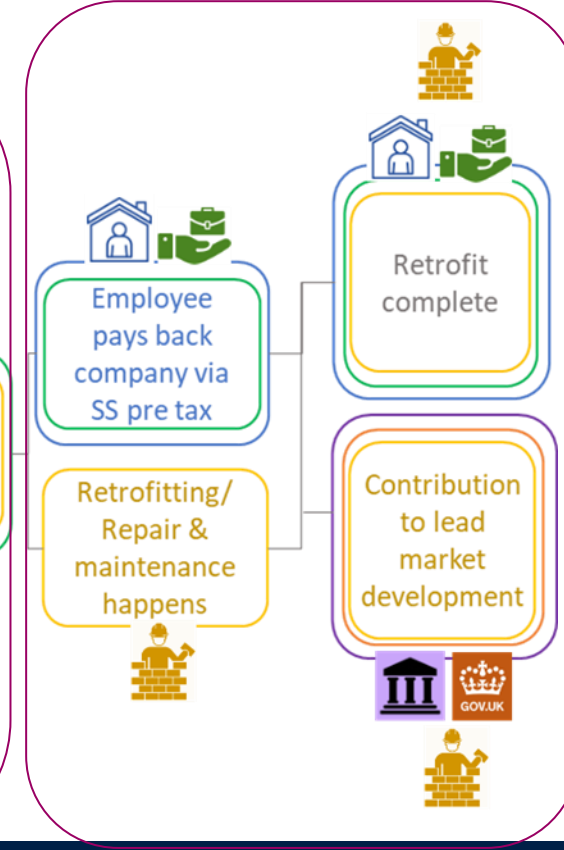
Retrofit scheme administration



Retrofit works facilitation



Pay back & completion



Stakeholder Perspectives: Value & Beneficiaries (1/2)

Retrofit Salary Sacrifice: Value and Beneficiaries



1. Financial Accessibility & Affordability

homeowners and the construction sector accessibility of funding and finance for retrofit works. Employers, as a benefit to staff retention, which indirectly ties to financial incentives. Banks and lenders, emphasize the reduced risks and benefits tied to the RSS scheme structure with employer as intermediate

2. Carbon Reduction & Environmental Goals

Homeowners, benefit in carbon emission reduction. Governments and local authorities as a means to achieve their net zero targets. Employers, as a means to meet their own carbon reduction goals, and banks & lenders align it with their sustainability goals.

3. Economic and Socio-Economic Benefits

Homeowners, benefit from savings through reduced energy consumption. Governments and local authorities see job creation and positive contributions to the broader economy, while the construction sector views it as market stimulation and a boost for the supply chain

4. Convenience and Practicality

For homeowners, direct deduction from salaries simplifies the payment process. Employers see the scheme as enhancing the work environment, particularly in the context of home/flexible working arrangements.

5. Quality and Assurance

The construction sector places emphasis on quality assurance through accreditation, ensuring high-quality delivery and reinforcing customer trust.

	Homeowners	Construction Sector	Employers	Governments	Banks & Lenders
1. Financial Accessibility & Affordability	Blue	Yellow	Green	White	Purple
2. Carbon Reduction & Environmental Goals	Blue	White	Green	Orange	Purple
3. Economic and Socio-Economic Benefits	Blue	Yellow	White	Orange	White
4. Convenience and Practicality	Blue	White	Green	White	White
5. Quality and Assurance	Blue	Yellow	White	White	White

Stakeholder Perspectives: Value & Beneficiaries (2/2)

Retrofit Salary Sacrifice: Value and Beneficiaries



5. Quality and Assurance

The construction sector places emphasis on quality assurance through accreditation, ensuring high-quality delivery and reinforcing customer trust.

6. Risk Management and Trust

The construction sector emphasizes the mitigation of risks associated with payments and aims to build trust through quality assurance. Banks and lenders focus on risk management with the structure of the RSS scheme.

7. Enhanced Reputation & Value Proposition

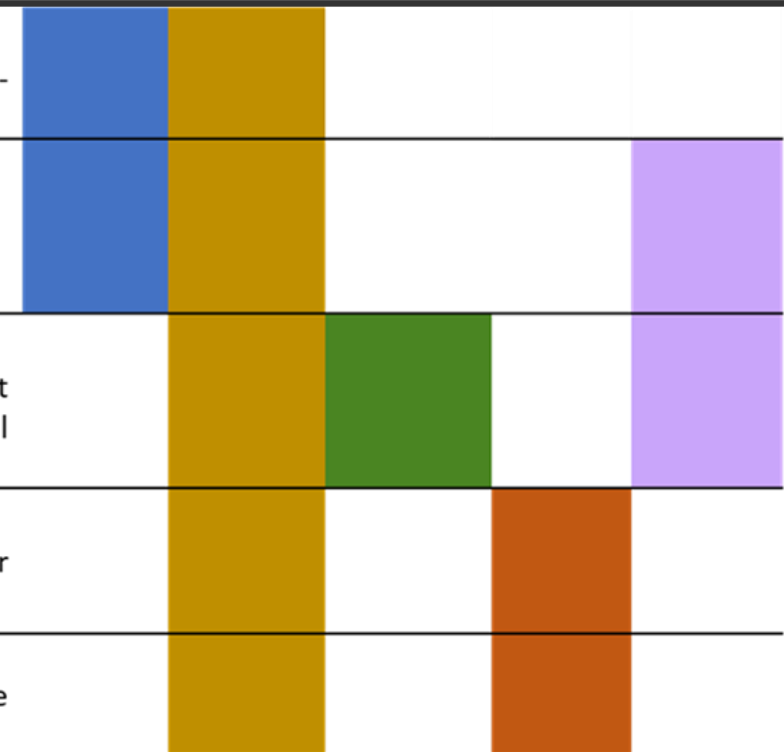
Employers see the scheme as reinforcing their eco-conscious reputation. The construction sector views it as a means to enhance their reputation and prepare for future demands. Banks and lenders see ethical differentiation and alignment with sustainability goals.

8. Policy Alignment and Utilization

Governments and local authorities can leverage existing policies with the RSS schemes, utilizing familiar mechanisms for implementation.

9. Engagement and Market Stimulation

Governments aim to engage more businesses in the retrofit initiative. The construction sector sees the scheme as stimulating retrofit demand and promoting supply chain growth



Perceived challenges & potential barriers/risks



Government/
Local
Authorities

What if employees aren't interested?



Employer /
company

How do we make it fair to those who aren't homeowners?



Employee/
homeowner

What happens to the loan if I leave the employer providing the scheme?



Construction
sector

How do we ensure consistent quality of delivery without making certification onerous?



Banks/
lenders

How do we minimise administrative complexity, quality assurance and attractiveness to homeowners?

Summary

What did we learn?

A. Unique Value of RSS Scheme:

Intensified diverse routes for delivering value from an RSS scheme with additional benefits that are harder to deliver with other retrofit programmes for the home-owner able to pay sector.

B. Leveraging Past Experiences:

There exists a vast reservoir of insights and in place mechanisms and services from other retrofit pilots that can be instrumental in crafting an effective RSS scheme.

C. Detail-Oriented Planning:

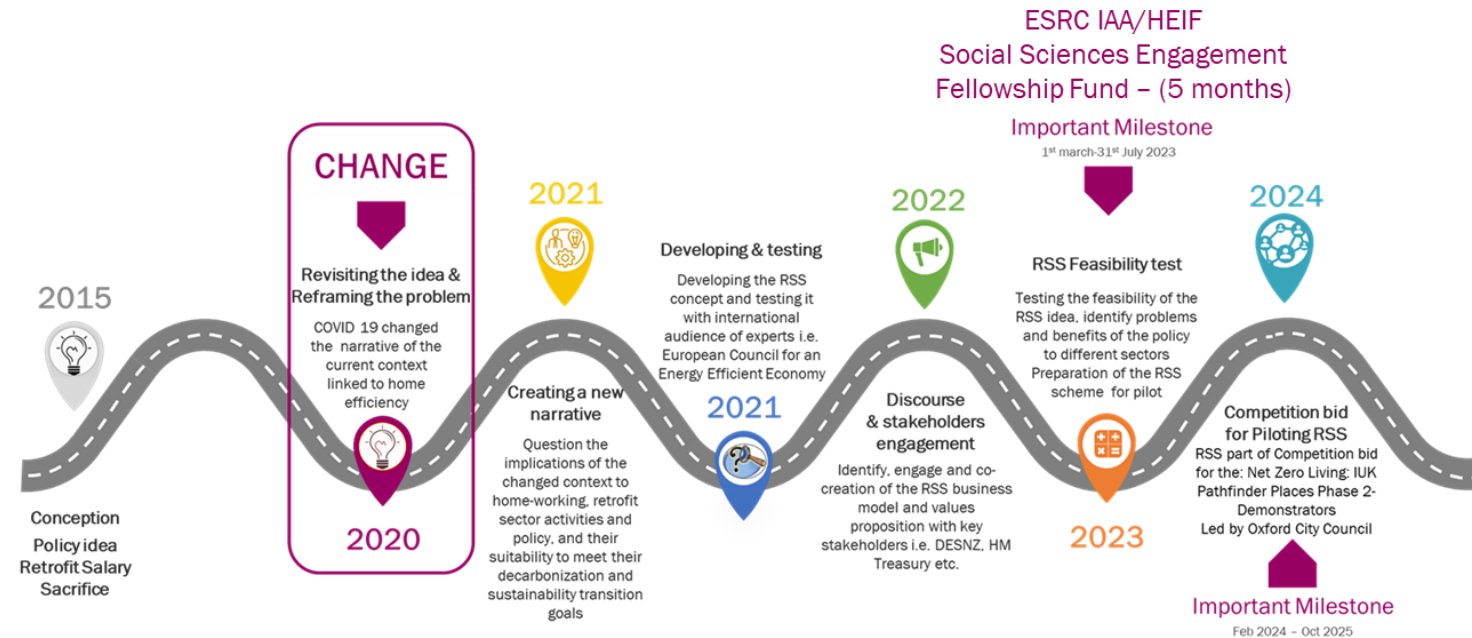
For a successful pilot and subsequent rollout, attention to detail is crucial. It is vital to define clear roles, responsibilities, manage cash flows, and establish robust risk management mechanisms.

Conclusions



- Context and time
- Identify the change
- Discourse and novel narratives
- Engagement with stakeholders & project partners

Retrofit Salary Sacrifice scheme



Next steps

Planning and developing the routes for delivering the RSS pilot - the Net Zero Living: IUK Pathfinder Places Phase 2 - Demonstrators Competition bid

Environmental *Change* Institute



Thank you

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Funders

ESRC Impact Acceleration Account

