

# Accelerating the delivery of energy efficiency & renewables in new and existing infrastructure

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SFT Low Carbon

APSE Energy, Big Summit, 8<sup>th</sup> March 2018

# *SFT and the low carbon space...*

Scottish Futures Trust collaborates with public bodies & industry to improve efficiency and value for money in development & operation of infrastructure and the public services it supports

Tangible activities with a carbon impact include: -

- constructing health centres and schools with community roles
- smarter working – agile workspaces
- energy performance contracting
- district heating
- streetlighting

# *Making the business case ...*

## Converting streetlights to light emitting diodes (LEDs)

- BEIS Electricity costs forecast expect doubling of prices in 10 years
- Total cost reduced by c.50-65%
- Avoided Costs
  - O&M 20-30%; Electricity 70-80%
- Typical payback
  - 5-6 years pre-finance
  - 6-7 years post-finance
- SFT's Streetlighting Toolkit in use throughout the UK



# *SFT's Low Carbon work in context*

## Existing Policy Positions

- [Infrastructure Investment Plan 2015](#)
  - Energy Efficiency as a National Priority
  - Scottish Schools for the Future; hub
- [Community Energy Policy Statement 2015](#)
- [Low Carbon Infrastructure Transition Programme](#)

## New Policy

- [Scottish Energy Strategy](#)
- [Local Heat and Energy Efficiency Strategies](#)
- [Scotland's Energy Efficiency Programme](#)
- Climate Change Plan ([RPP3](#))

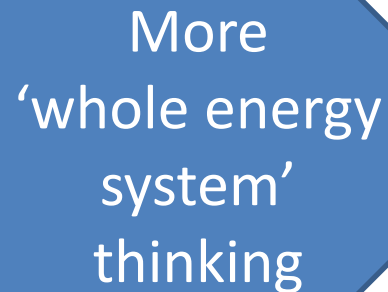
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More  
'whole energy  
system'  
thinking

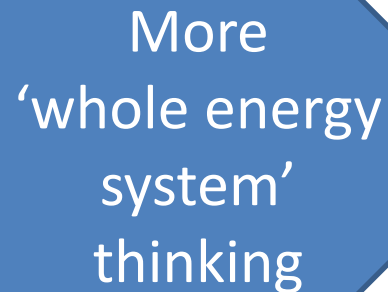
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More  
'whole energy  
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thinking

More  
collaboration

More  
sustainable  
business cases

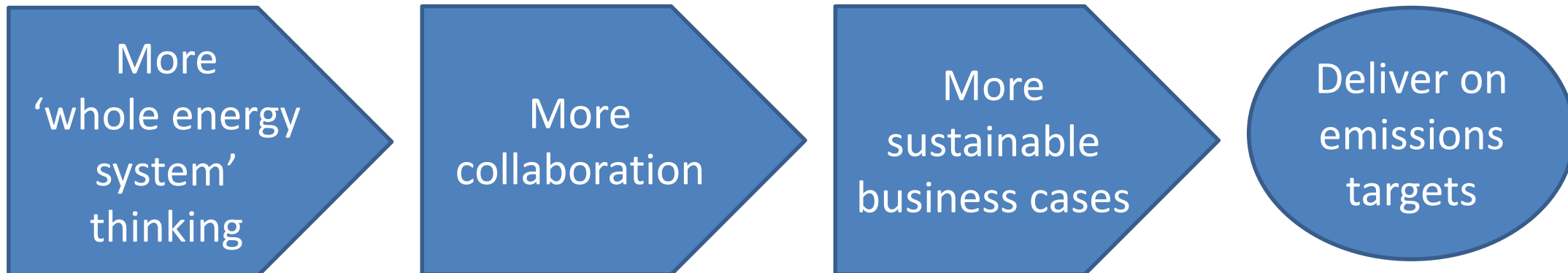
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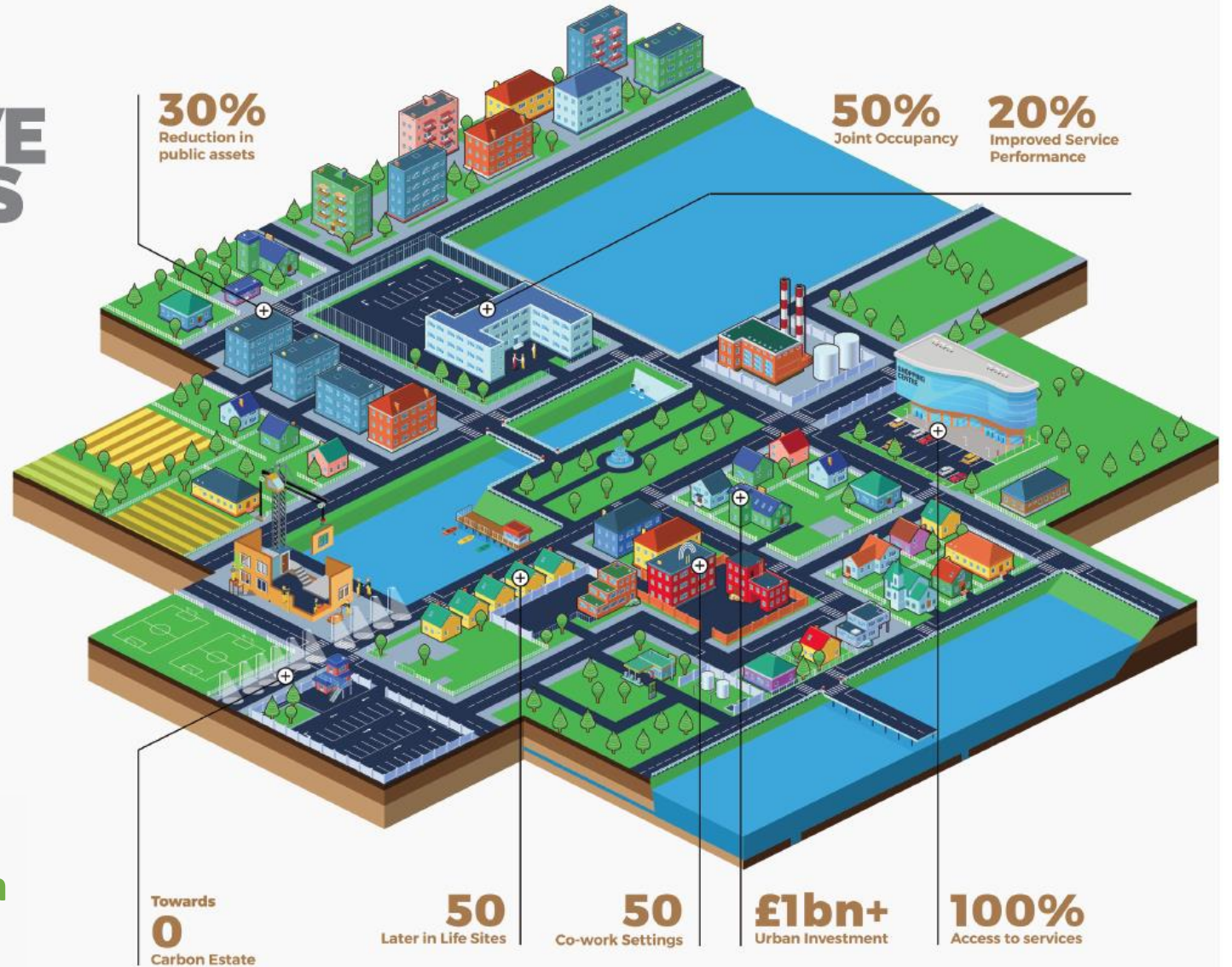


SCOTTISH  
FUTURES  
TRUST

# POSITIVE IMPACTS

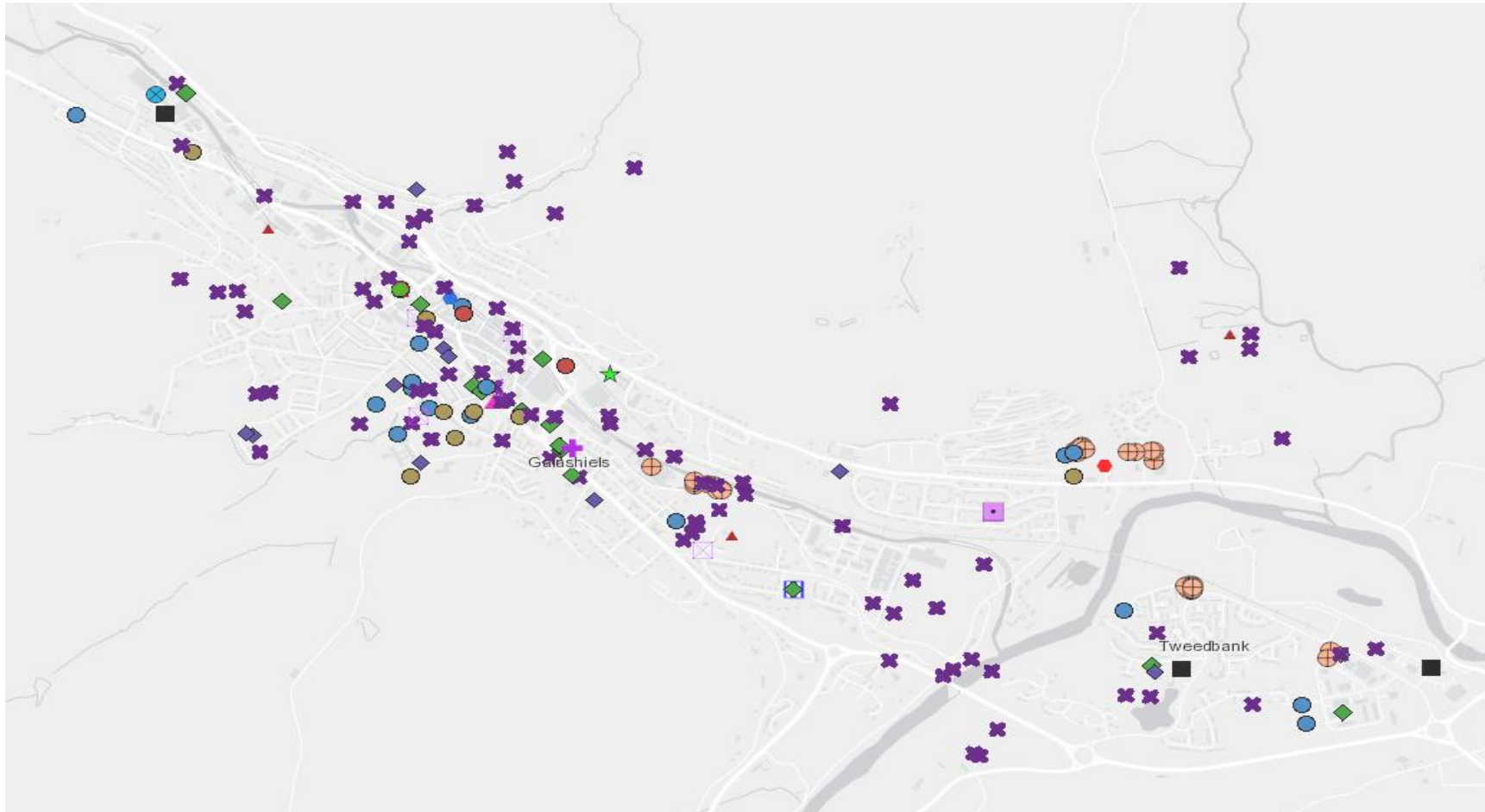
If the problem  
appears too  
difficult  
then make the  
challenge  
bigger....

Towards  
Zero Carbon  
Estate



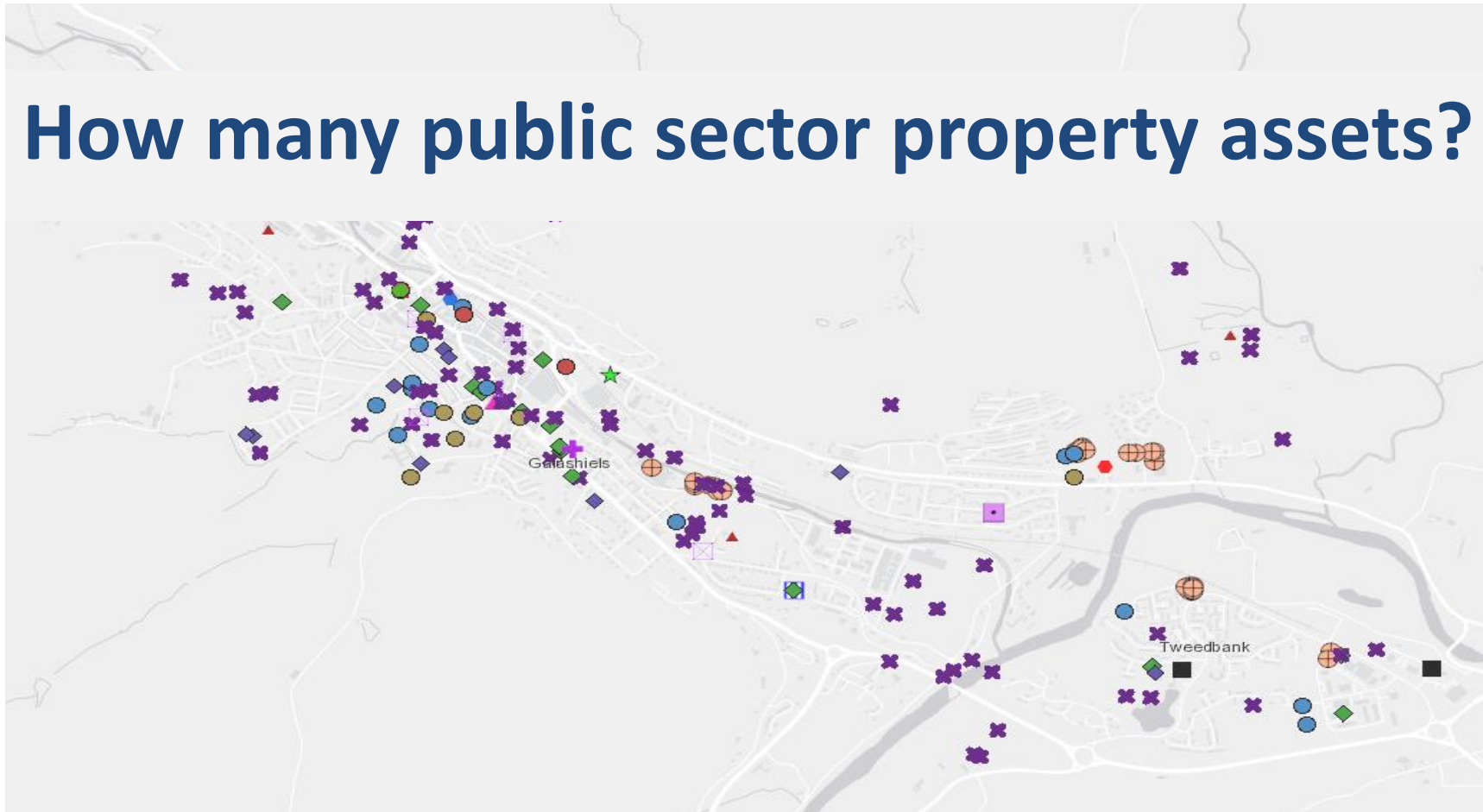
...by 2022

# Galashiels (pop. circa 15,000)...



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## How many public sector property assets?



# *Galashiels (pop. circa 15,000)...*

226 assets across  
14 organisations:

**Scottish Borders Council**

**NHS Borders**

**DFT Highways England**

**Police Scotland**

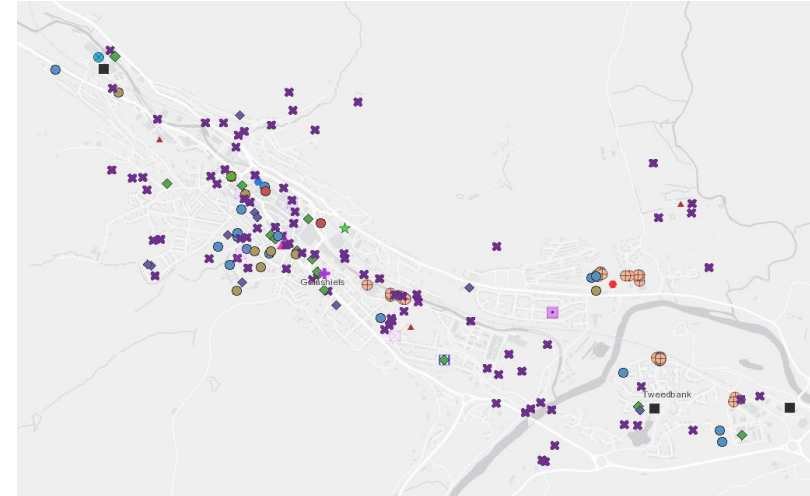
**Scottish Environment Protection Agency**

**Scottish Natural Heritage**

**Scottish Fire & Rescue Service**

**Scottish Ambulance Service**

**Skills Development Scotland**



**Historical Railways Estate**

**Director General Communities**

**Department for Work and Pensions**

**Forestry Commission Scotland**

**MOD**

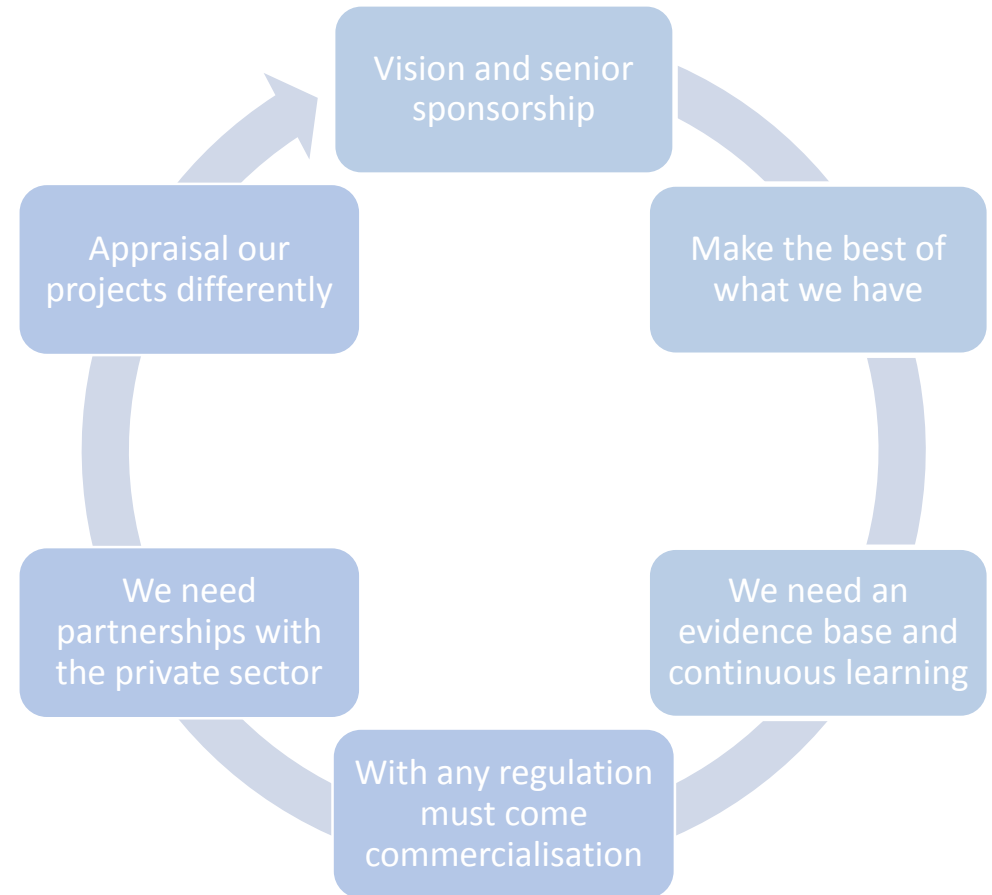
**Scottish Government**



# Accelerating delivery...

- whole energy systems
- demand side management
- electricity storage
- electric vehicle charging infrastructure
- district heating

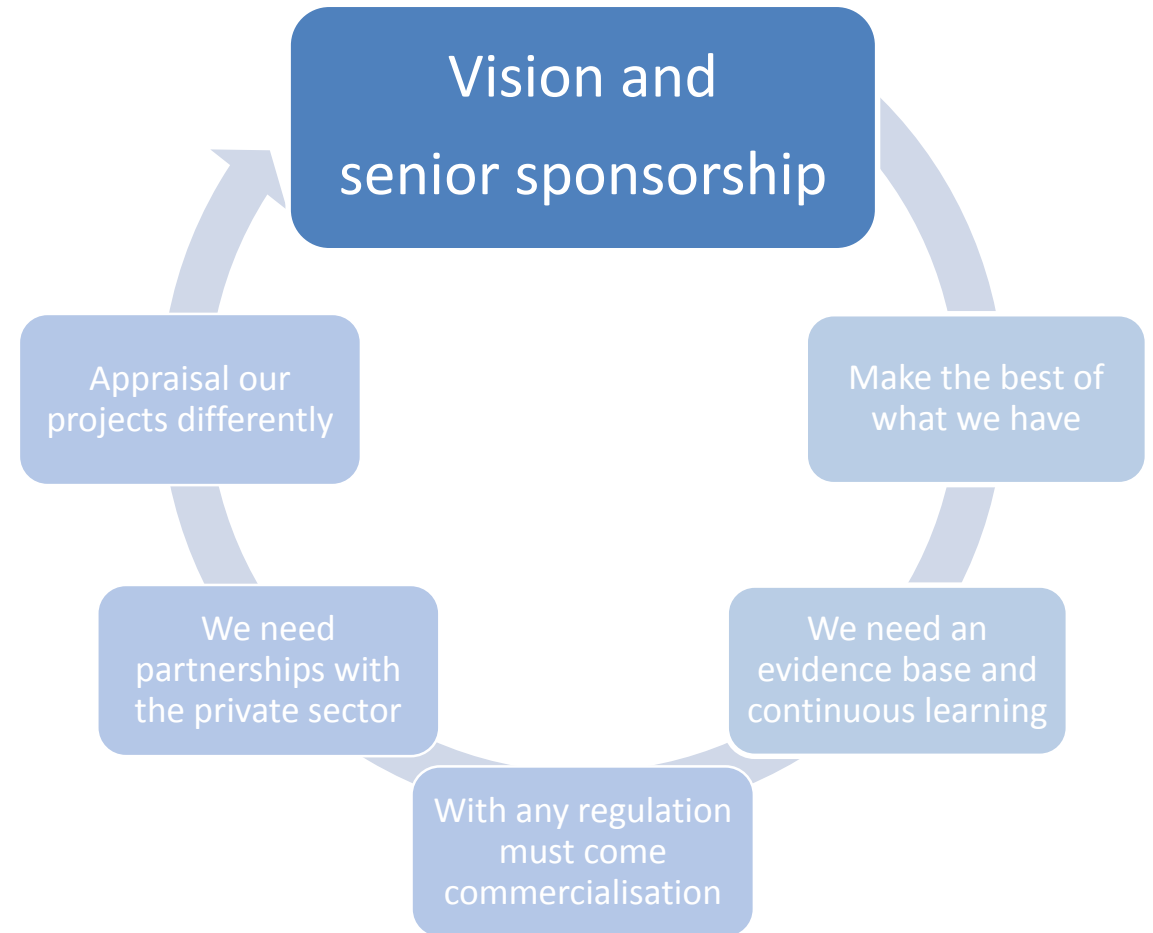
Scottish Energy Strategy &  
Local Heat and Energy Efficiency  
Strategies will strengthen these activities



# Accelerating delivery...

The most important factors in successfully delivering low carbon projects are:

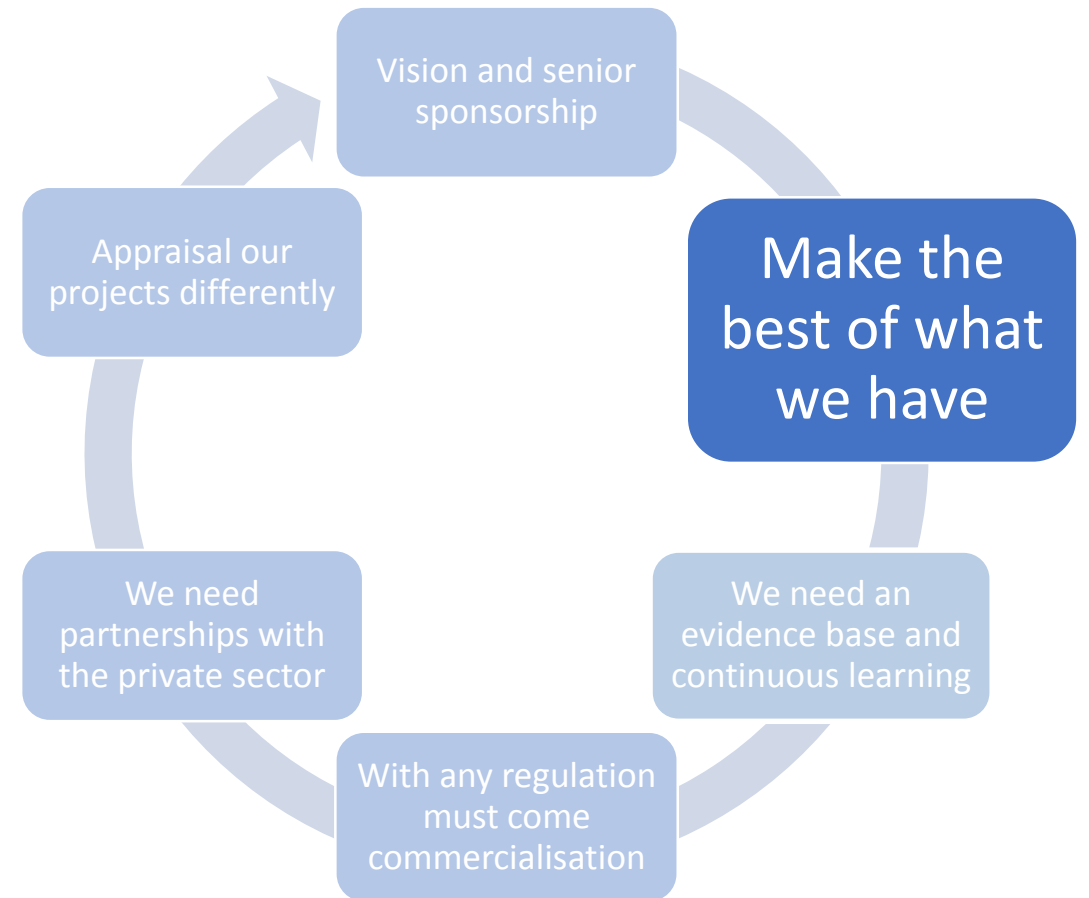
- Vision
- Senior sponsorship
- Clear objectives



# Accelerating delivery...

80-90% of building stock to 2050 is already in place.

Our new builds should demonstrate what can be achieved and not become part of the problem



# Accelerating delivery...

We need to be better at:

- baseline data
- benchmarking
- measurement & verification
- post occupancy evaluation

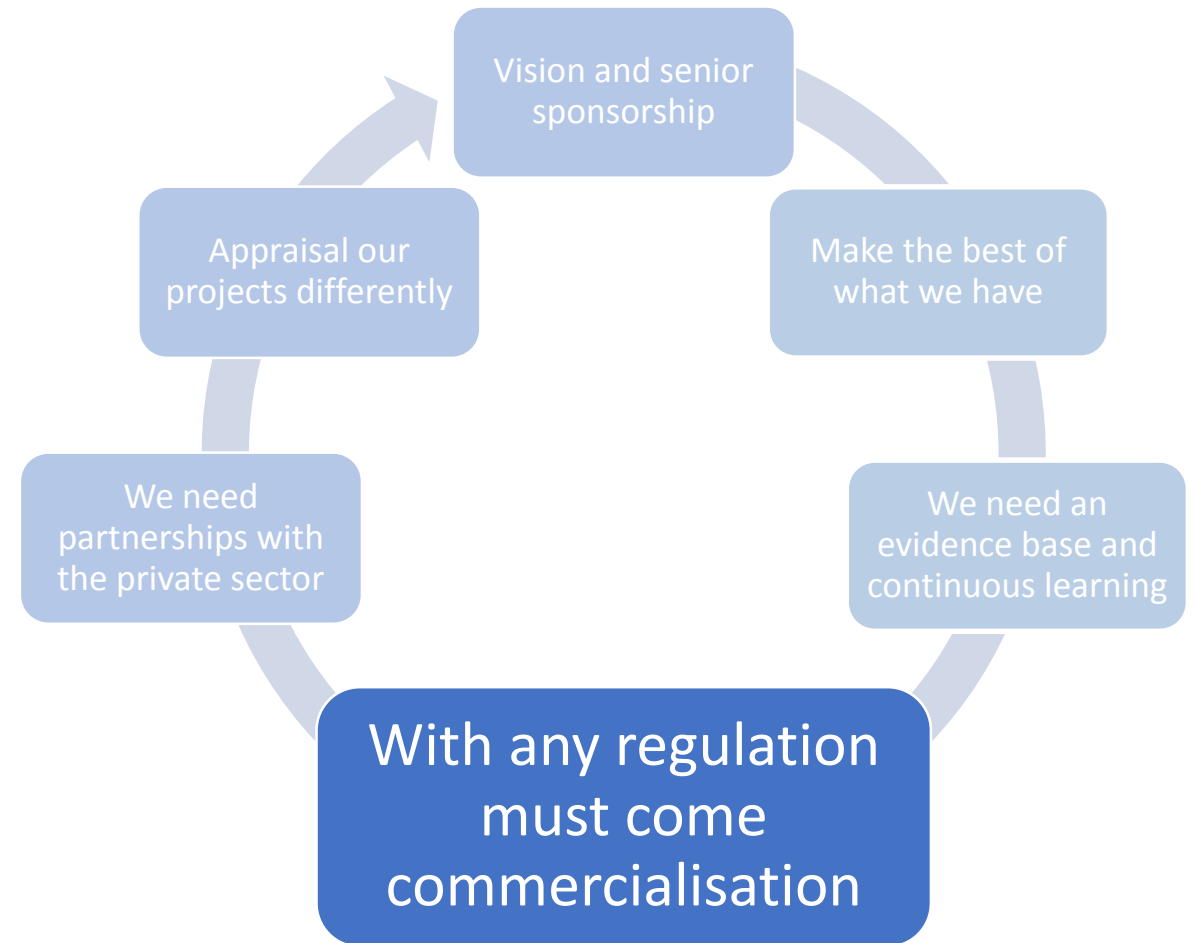
If we are to improve outcomes





# Accelerating delivery...

The majority of our low carbon “energy system” projects are being delivered with subsidy - **this is not sustainable**



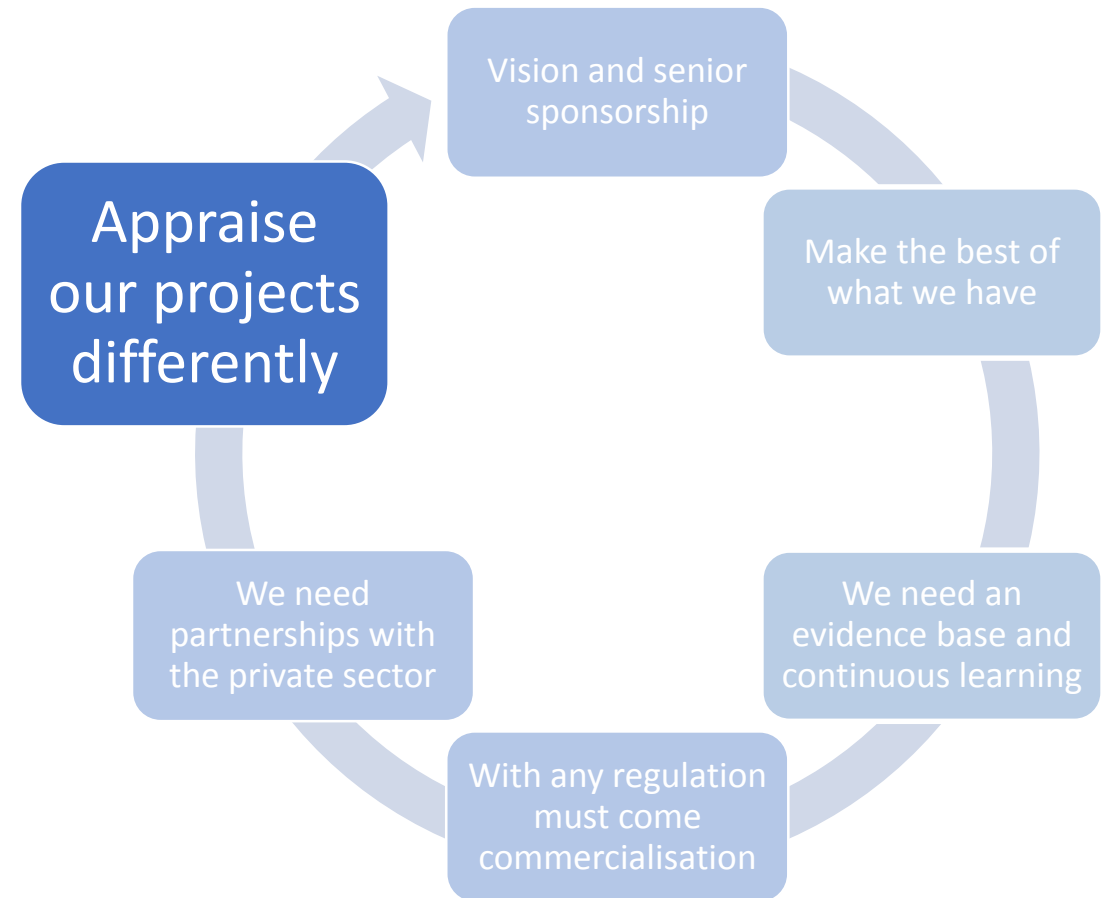
# Accelerating delivery...

With approx. **£10bn** of infrastructure improvements needed, we will rely on strong business cases and collaborative approach to secure investment & expertise



# Accelerating delivery...

We need wider social/economic tools to assess options and develop business case if the public sector is to deliver place-based energy systems



“There are costs and risks to a program of action,  
but they are far less than the long range risks and  
costs of comfortable inaction”

— John F. Kennedy

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