

# Carbon Management in Capital Projects

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**Capital  
Delivery**

Simplify  
Enable  
Deliver

# National Grid

## UK

- 14,200 km overhead lines
- 690 km underground cable
- 329 substations
- 7,660 km high pressure pipeline
- 23 compressor stations
- 645 former industrial sites
- ~ 8,000 hectares vacant / surplus land holdings



- Recognise and enhance the value of our natural assets on at least 50 sites by 2020
- Drive net gain in environmental value (including biodiversity) on major construction projects by 2020





# UK Context

1 Decarbonisation



2 Decentralisation



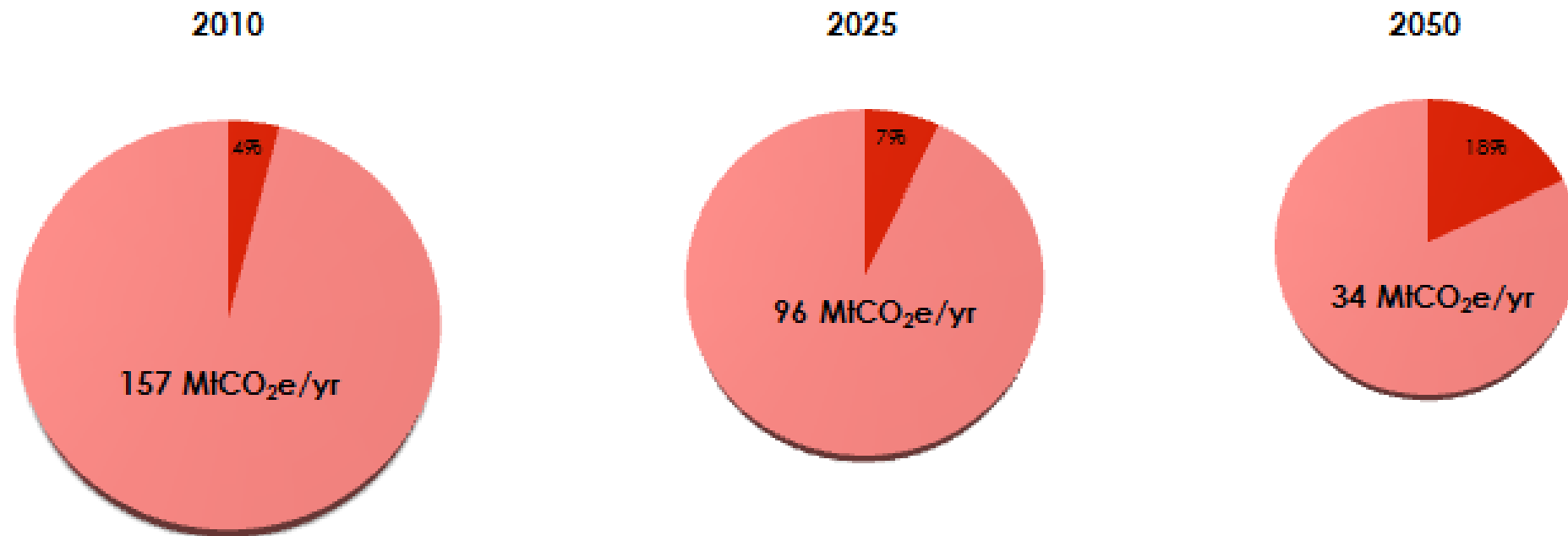
3 Customer Engagement



4 Competition

## Why carbon?

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Source: Green Construction Board

■ CapCarb ■ OpCarb

## Strategic goals

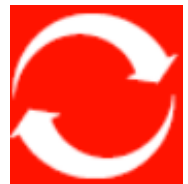
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### Our climate Commitment



- 80% reduction in operational GHG emissions by 2050
- 45% reduction in operational GHG emissions by 2020
- Reduce capital carbon in construction projects by 50% by 2020

### Responsible Resource Use



- Reuse or recycle 100% of recovered assets by 2020
- Send zero office waste to landfill by 2020

### Caring for the Natural Environment



- Recognise and enhance the value of our natural assets on at least 50 sites by 2020
- Drive net gain in environmental value (including biodiversity) on major construction projects by 2020

## Construction Portfolio

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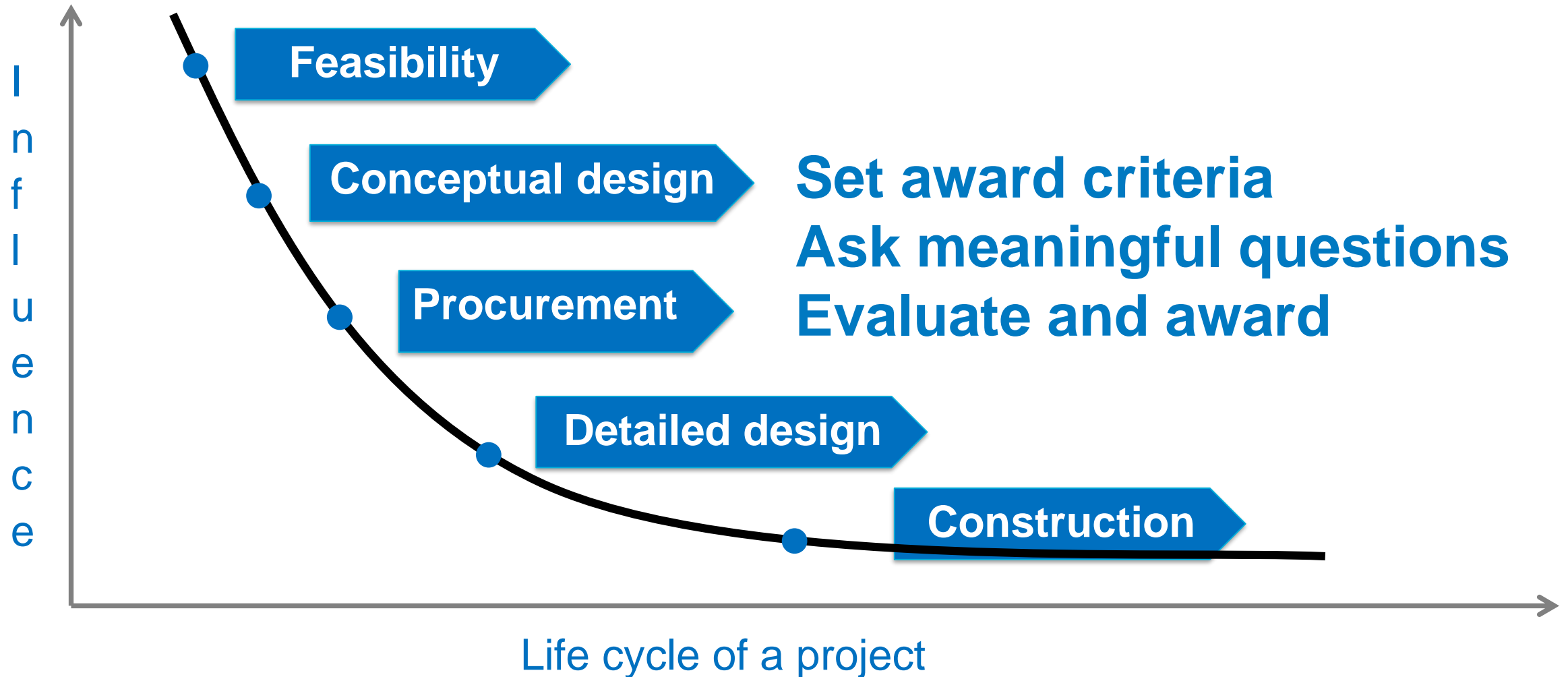


Delivering £800m – £1b infrastructure per year

Working across the UK on 60 – 70 schemes per year

Engaging with 25+ Tier 1 contractors

## The development process



## Example: Bulls Lodge Substation

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**5%**  
weighting

**2**  
final bidders

**31**  
tCO2/£m  
less

**20%**  
secondary  
material



## Example: Circuit breaker bulk purchase

**10%**  
weighting

**6**  
final bidders

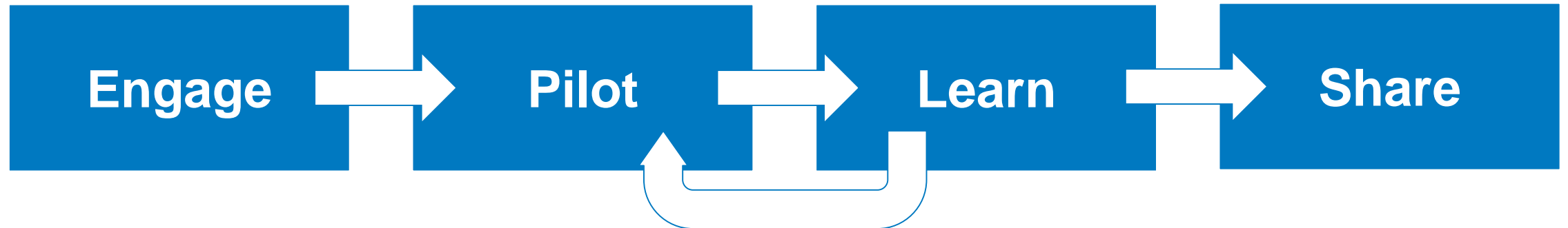
**17%**  
less CO<sub>2</sub>e  
per unit

**37**  
Sites  
affected

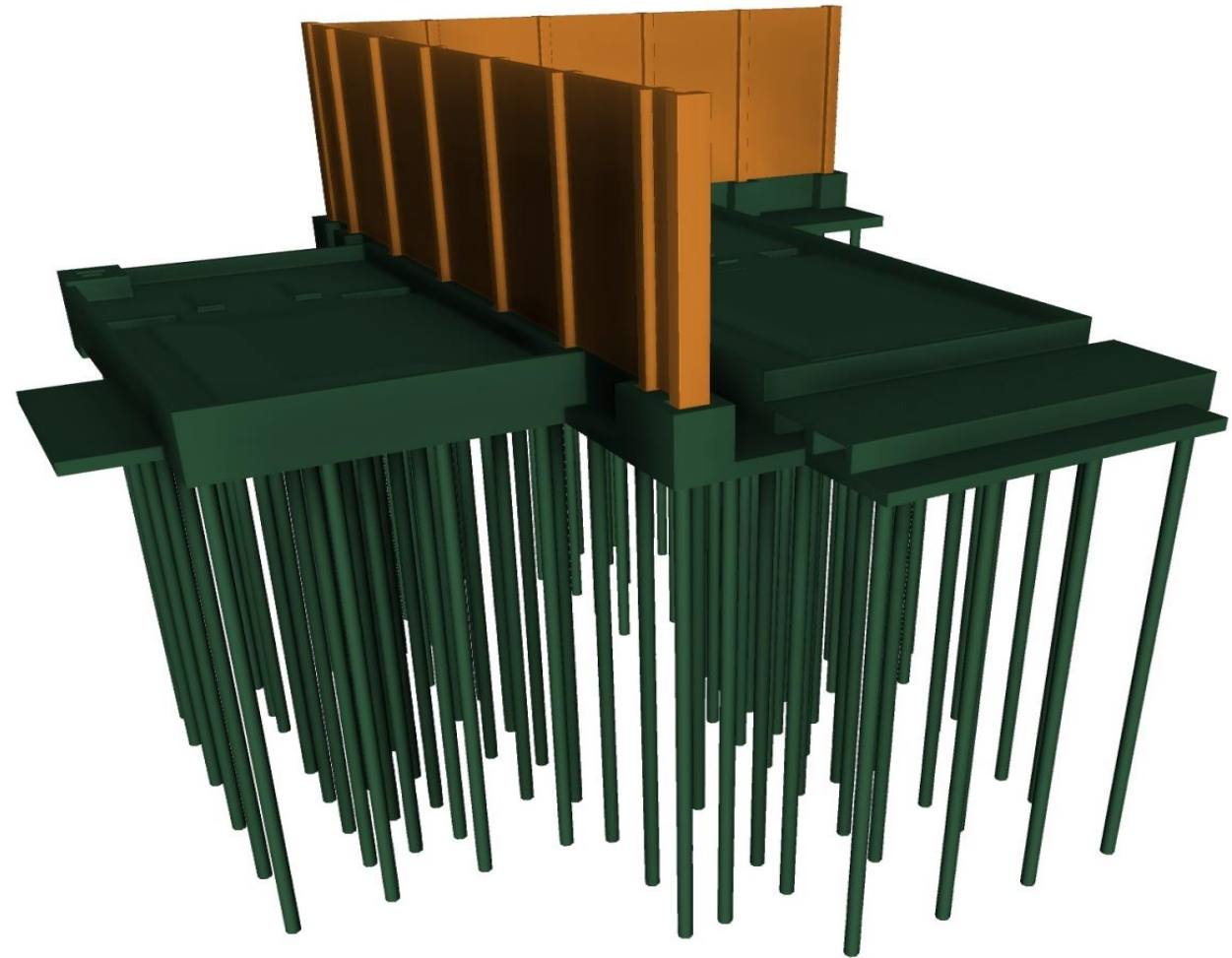
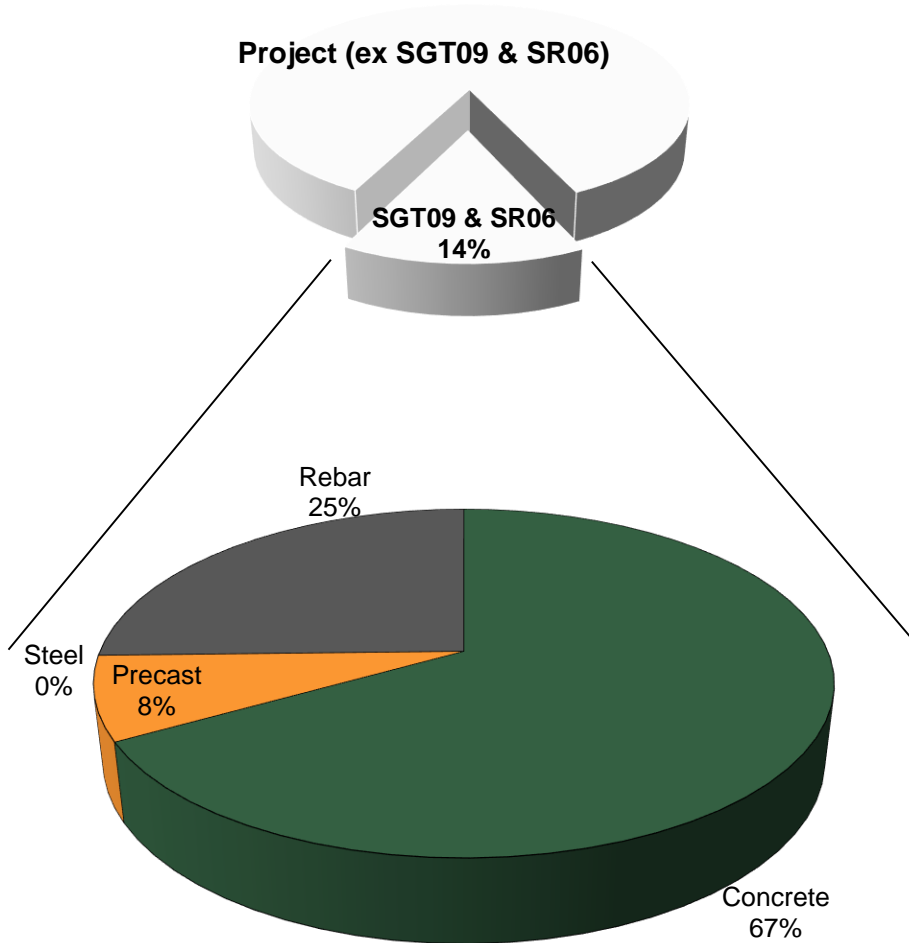


## Our Journey so far....

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# Changing Behaviour



## Changing Behaviour

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“Your carbon interface tool has helped to highlight and reinforce the fact that alternative lower carbon options may be achievable”  
-- Tier 1 supplier

**“Conscious that we didn’t do well on the last event. Keen to do better on this one. Could you arrange a WebEx for us to run through the requirements?”**  
**-- Tier 1 supplier**

“It would be great if you could come and do a feedback session for us so we can keep it up”  
-- Tier 1 supplier

“I’m interested in doing the evaluation for this one”  
-- Commercial officer



## Shifting practice and behaviour

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