

Southern Coastal Group and SCOPAC
Item 10: Climate change and carbon
Friday 19 November 2021 – updates

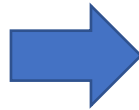
Climate change workshop – proposal recap



SCG/SCOPAC workshop:

Recap of aims:

- Help bring **common understanding** of the challenges around net zero and associated issues, including terminology and concepts.
- Leverage **good practice** already out there – including tools for measuring carbon.
- **Sharing knowledge and information** sources; stakeholders who can help.
- Help to develop a common vision and **inform thinking** to help set net zero commitments.
- Help identify **next steps** on net zero path.



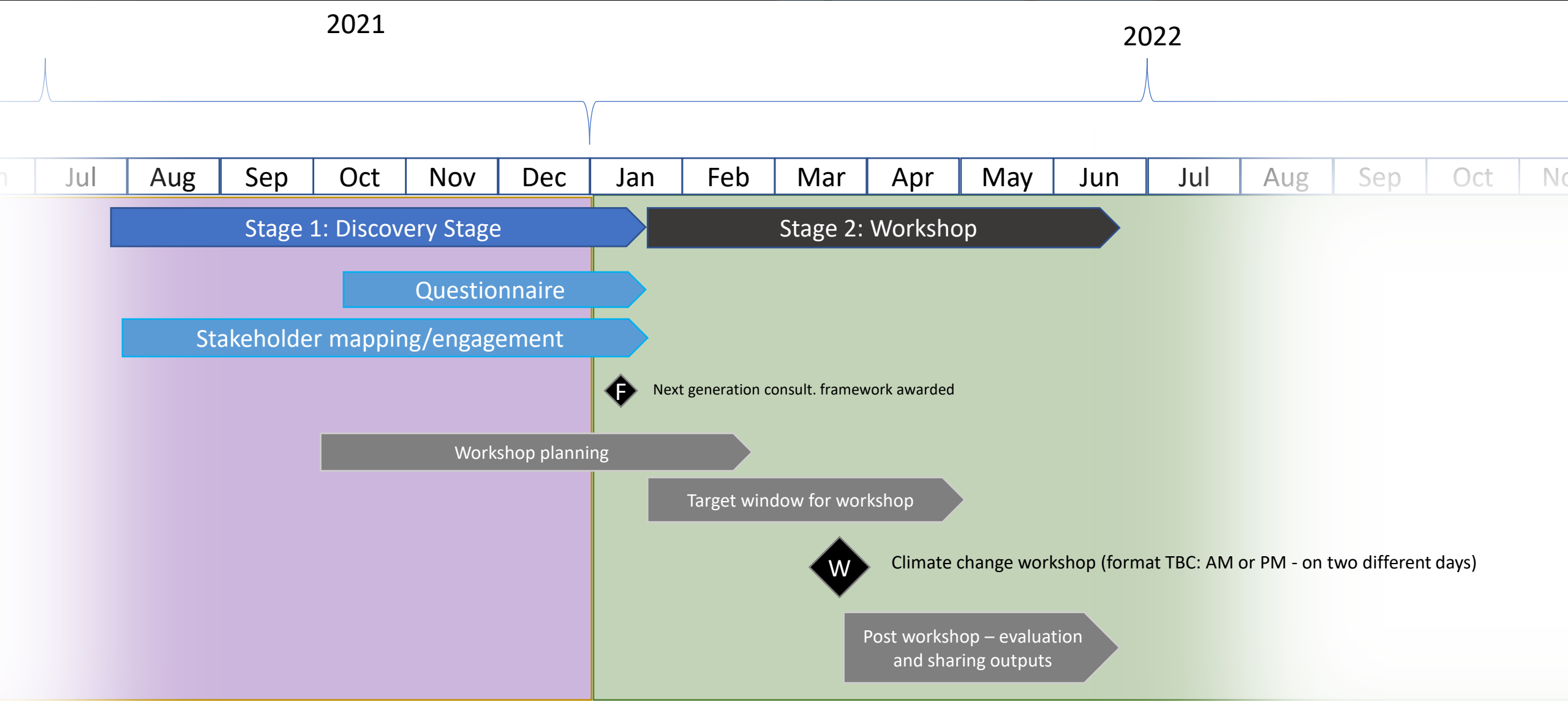
Stage 1, the 'Discovery Phase':

- A focussed questionnaire to capture existing knowledge, practice and ideas.
- Stakeholder mapping
- Support– networking, industry, suppliers, partners

Stage 2, Achieving Net Zero: Collaborative Workshop'

- Bring together current thinking – suppliers, partners and stakeholders
- Relevant areas to coastal sector
- Post workshop - share outputs

Climate change - timeline



Emerging thinking



Workshop development

- Discussions
- News/development
- Industry updates
- SCG/SCOPAC work
- Projects

Emerging thinking – Planning

Emerging themes:

- 'Whole Life Cycle'
- Early interventions have greatest ability to influence carbon cycle.
- Policy and strategic decisions – national/local – 'resilient places'
- Business case and carbon/carbon in economic appraisal
- Tools development – (EA Project Cost Tool + ERIC) + BIM. Base data reliability.

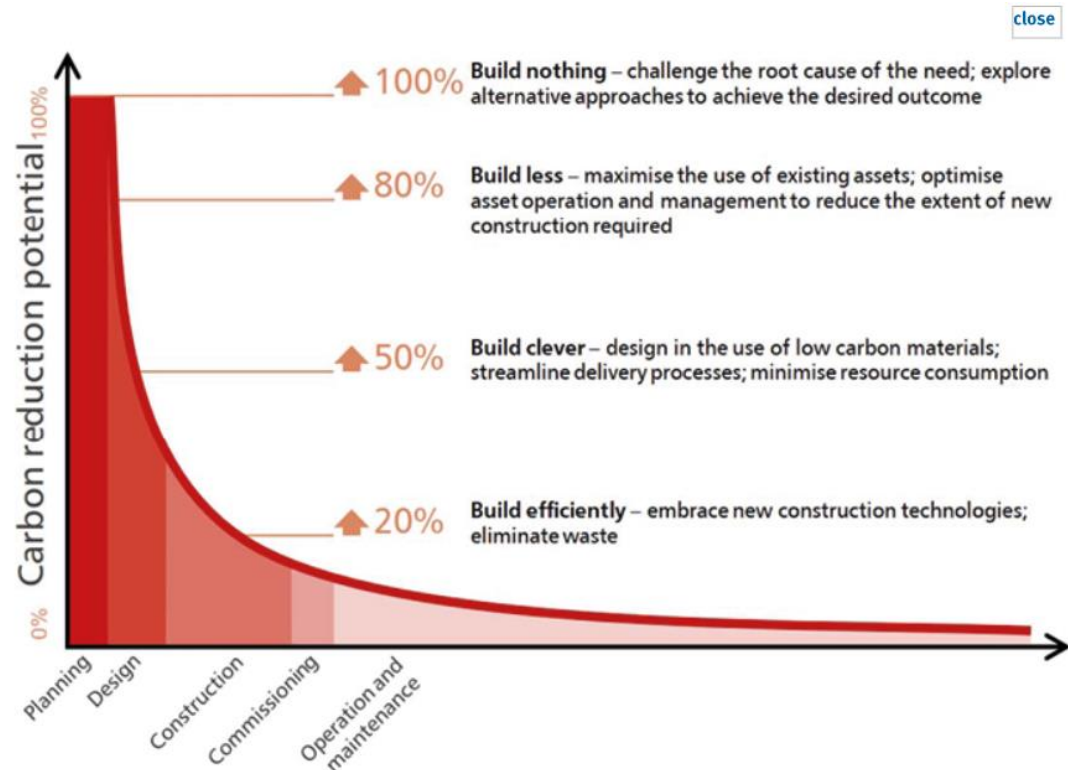
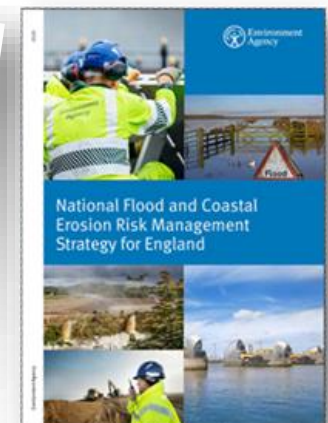
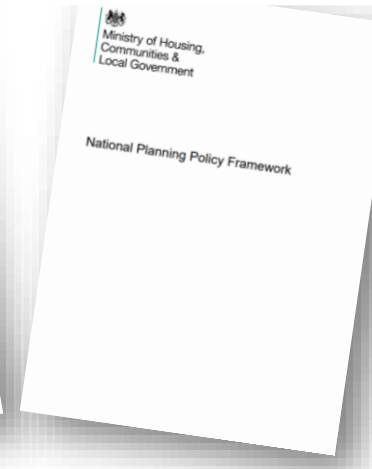
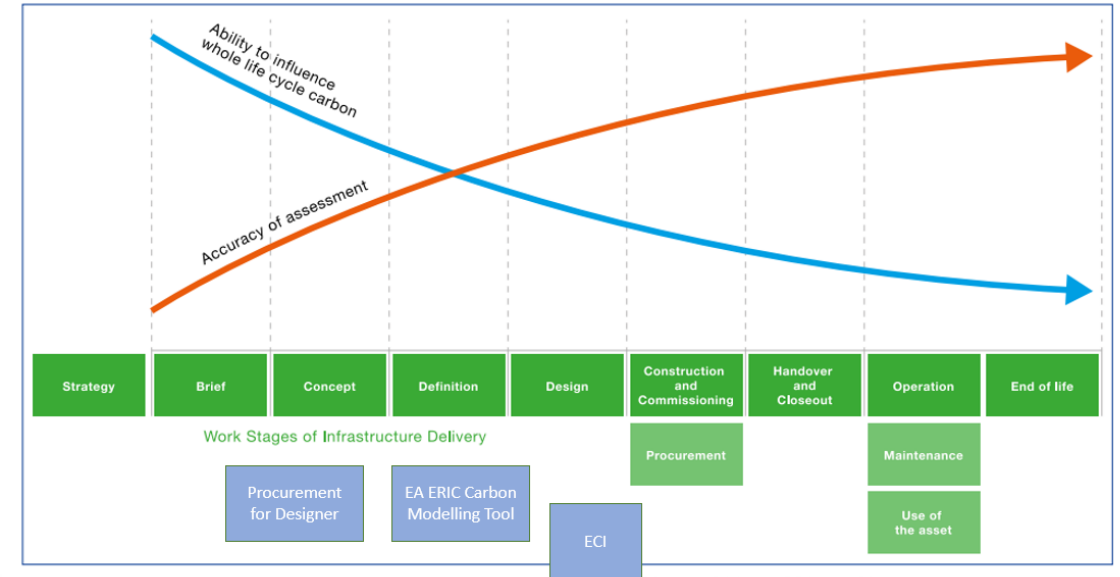


Figure 4 – Conceptual diagram to showing ability to influence carbon reduction across the different work stages of infrastructure delivery



PAS 2080:2016
Carbon Management
in Infrastructure

CCC
The Green Construction Board

Emerging thinking – Construction/Maintenance



"Construction contributes to 54% of total Environment Agency emissions and the vast majority of that is embodied carbon in materials."



Emerging themes:

- Materials and plant
- Analyse and optimise - 'you can't improve what you don't measure'. Tools development – (EA Project Cost Tool + ERIC) + BIM. Base data reliability.
- Approvals for use of materials - codes /standards and risks/costs
- Limitations on maintenance budgets

NPI Scheme –

- *Bio-diesel on all plant.*
- *The concrete we use in the wall contains Ground Granulated Blast-furnace Slag (GGBS) which is a by-product and reduces the amount of Portland cement required, reducing carbon produced.*

CemFree concrete - Lydd Ranges Sea Defences (Environment Agency, TVO, David Ball Group)

We will construct a 4m wide, 1.8km long access trackway as a large-scale use of CemFree ultra-low carbon concrete. This will build on the lessons from a 70m pathway at nearby Hythe. We will test performance to ensure it can withstand up to 40t total loading from vehicles using the trackway for beach management work along the frontage or by the MoD. We will also be improving our understanding and optimising the curing times, workability and quality of the finishes.



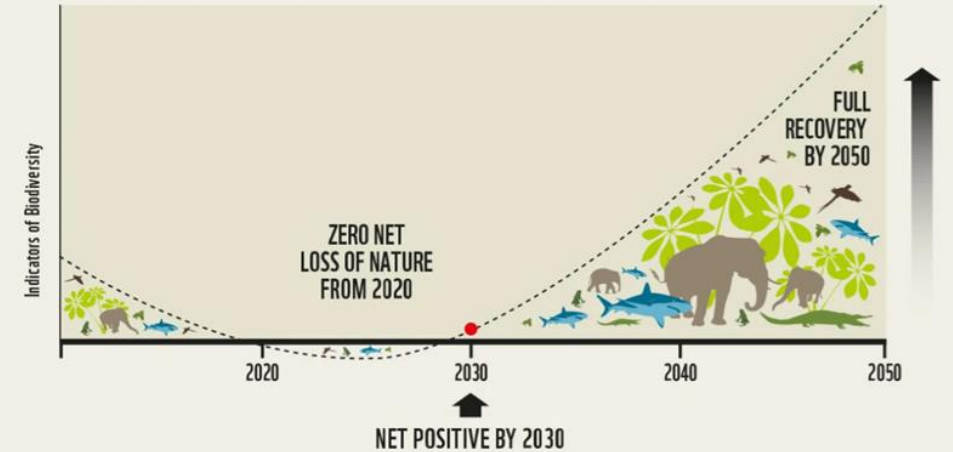
Emerging thinking – Environment and habitat



Emerging themes:

- Nature-based solutions
- Wider enhancements
- 'Greening the grey' - Habitat creation – Eco formliner and other initiatives – saltmarsh, water quality, nitrate removal etc
- Regional Habitat Compensation Programme (RHCP) strategic scale habitat creation – 'Nature Positive' *offsetting habitat losses (predominantly saltmarsh) are caused by coastal squeeze resulting from sea level rise against fixed coastal defences.*

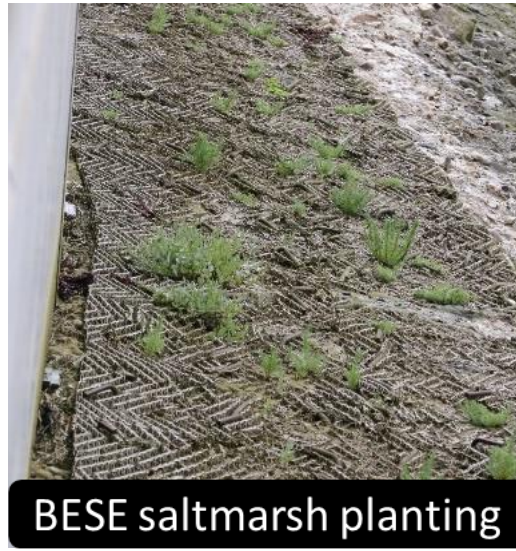
Global Goal for Nature: Nature Positive by 2030



A Global Goal for Nature - in parallel to the UN Climate Convention's "net zero" emissions goal - would commit governments to be nature-positive by 2030 by taking urgent action to halt nature loss **now**.



Place-making



BESE saltmarsh planting



Bee posts



Rockpools