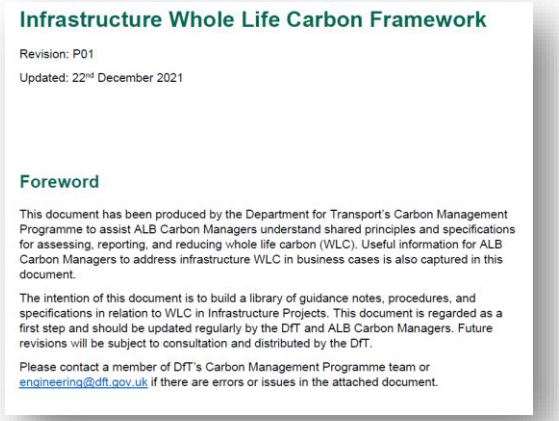
What are our requirements for carbon reporting?



Infrastructure Whole Life Carbon Framework

Revision: P01

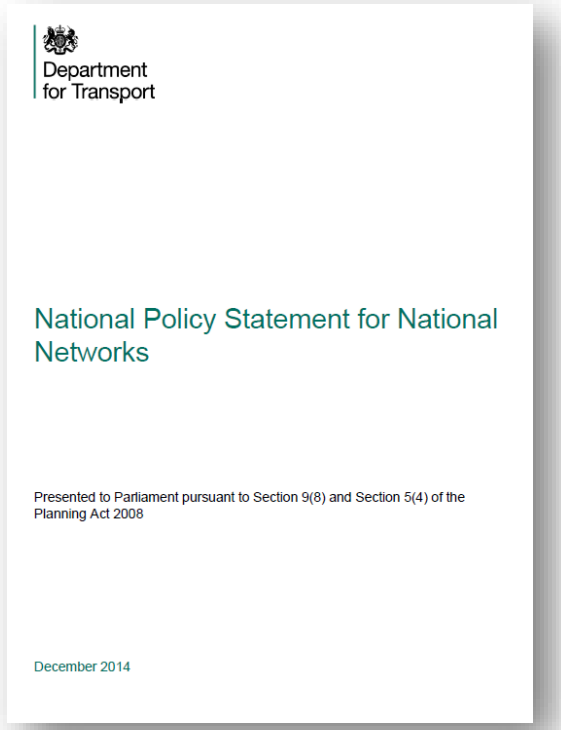
Updated: 22nd December 2021

Foreword

This document has been produced by the Department for Transport's Carbon Management Programme to assist ALB Carbon Managers understand shared principles and specifications for assessing, reporting, and reducing whole life carbon (WLC). Useful information for ALB Carbon Managers to address infrastructure WLC in business cases is also captured in this document.

The intention of this document is to build a library of guidance notes, procedures, and specifications in relation to WLC in Infrastructure Projects. This document is regarded as a first step and should be updated regularly by the DfT and ALB Carbon Managers. Future revisions will be subject to consultation and distributed by the DfT.

Please contact a member of DfT's Carbon Management Programme team or engineering@dft.gov.uk if there are errors or issues in the attached document.

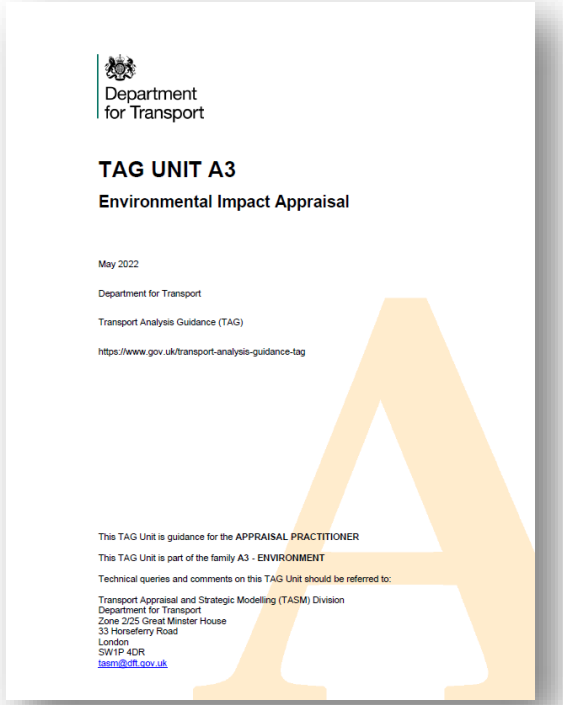


Department for Transport

National Policy Statement for National Networks

Presented to Parliament pursuant to Section 9(8) and Section 5(4) of the Planning Act 2008

December 2014



Department for Transport

TAG UNIT A3

Environmental Impact Appraisal

May 2022

Department for Transport

Transport Analysis Guidance (TAG)

https://www.gov.uk/transport-analysis-guidance-tag

This TAG Unit is guidance for the **APPRAISAL PRACTITIONER**

This TAG Unit is part of the family **A3 - ENVIRONMENT**

Technical queries and comments on this TAG Unit should be referred to:

Transport Appraisal and Strategic Modelling (TASM) Division
Department for Transport
Zone 2/25 Great Minster House
33 Horseferry Road
London
SW1P 4DR
tasm@dft.gov.uk

GOV.UK

Home > Greening Government Commitments 2021 to 2025

- Department for Environment Food & Rural Affairs (https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs)

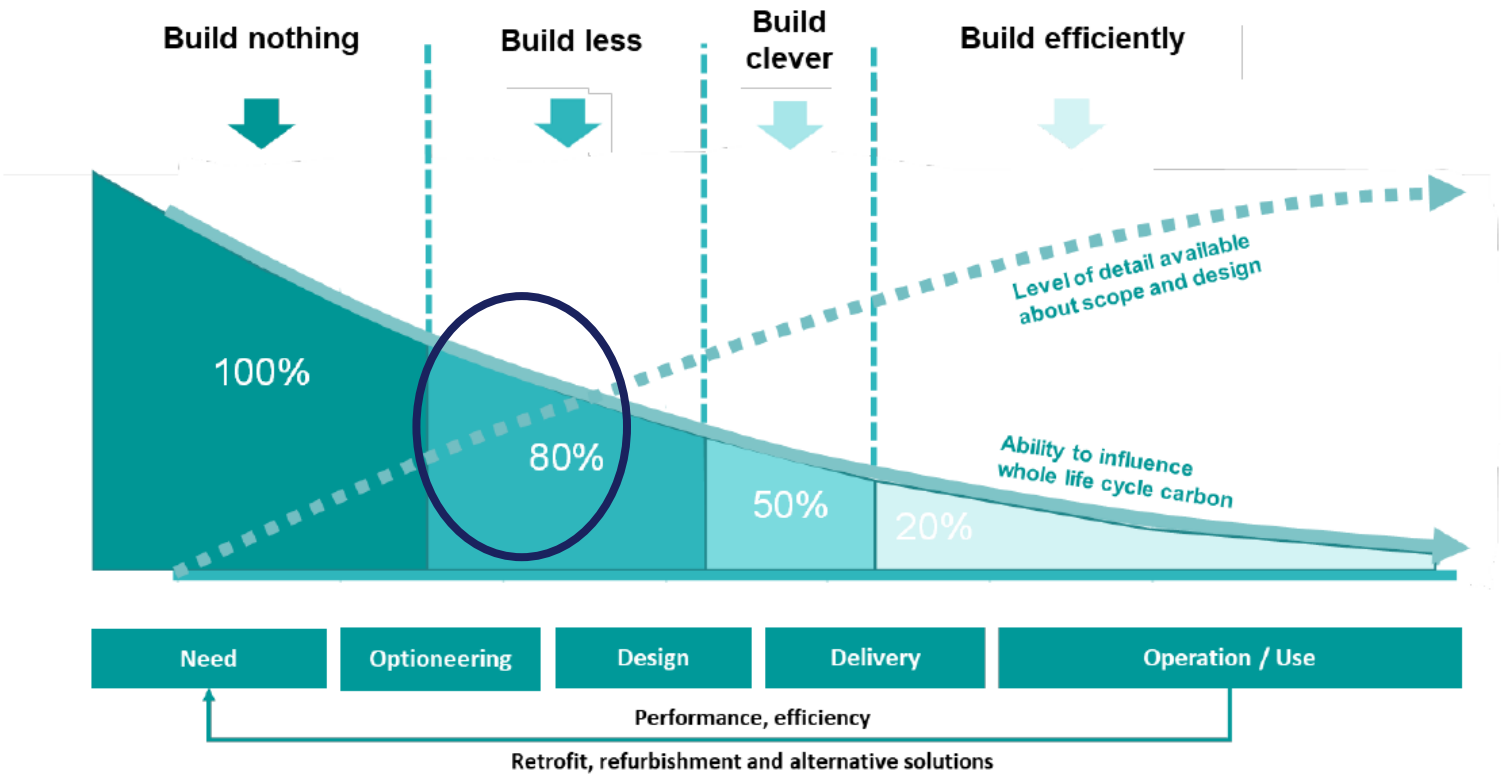
Policy paper

Greening Government Commitments 2021 to 2025

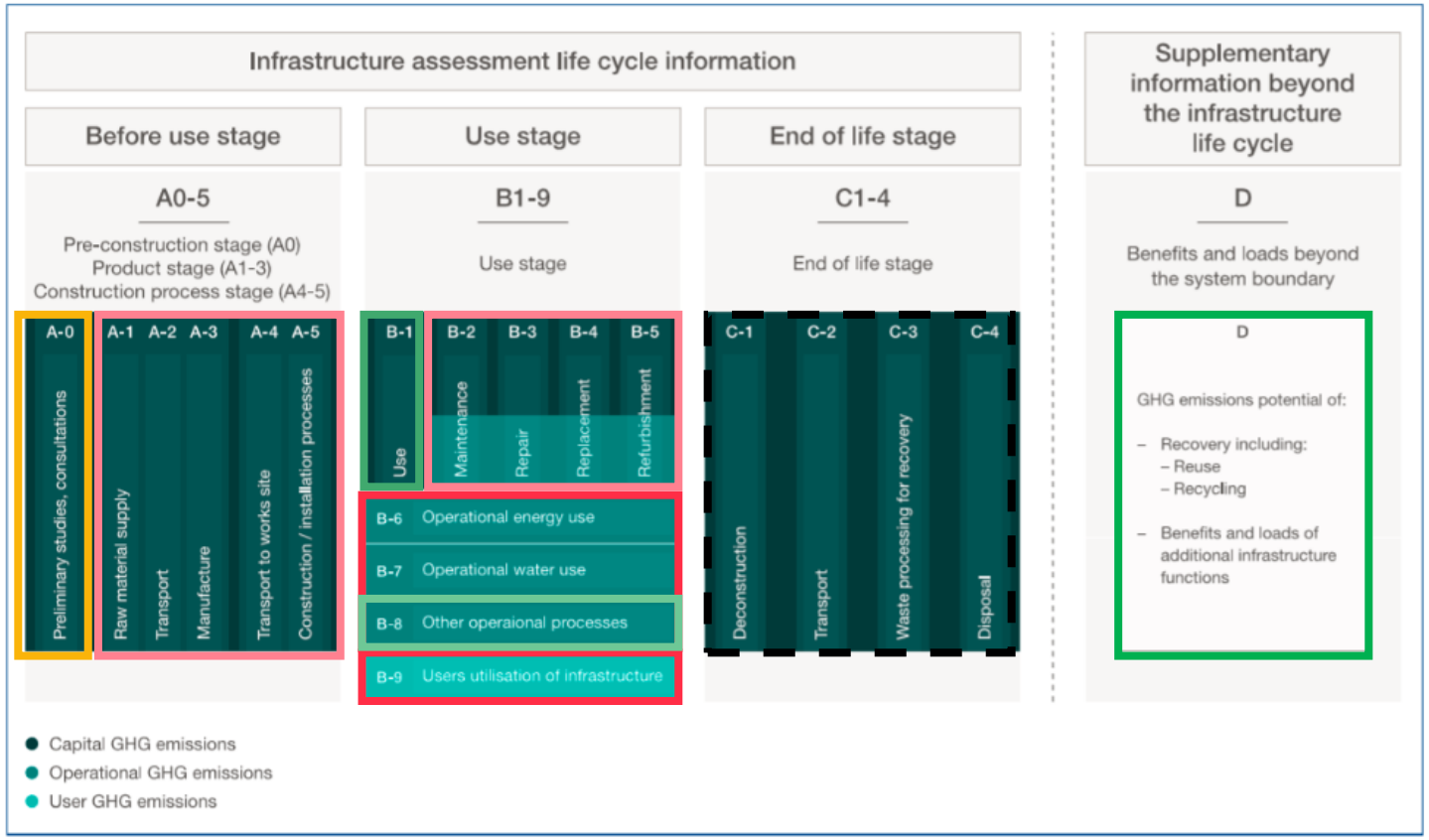
Published 28 October 2021

Contents

Design maturity



Scope



Corporate

Building and maintaining the railway

Operating the railway

Carbon benefits

Carbon removals

Out of scope

Idealised carbon emissions profile

Corporate

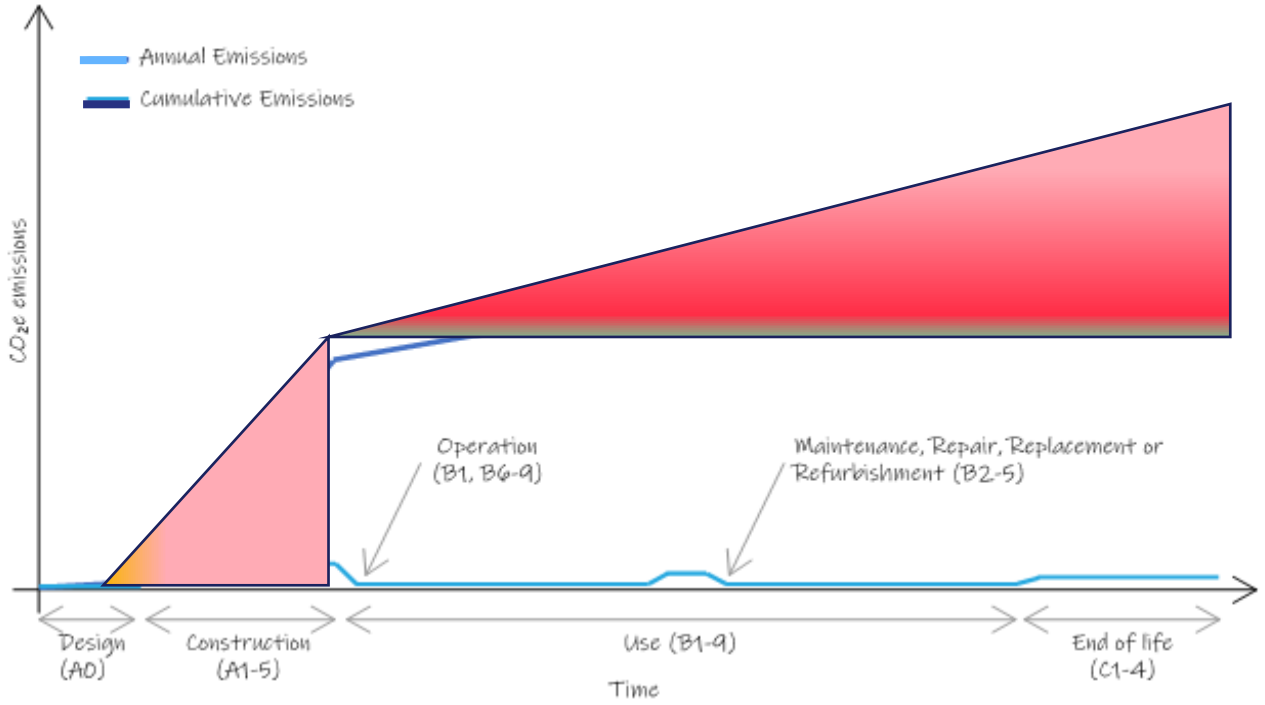
Building and maintaining the railway

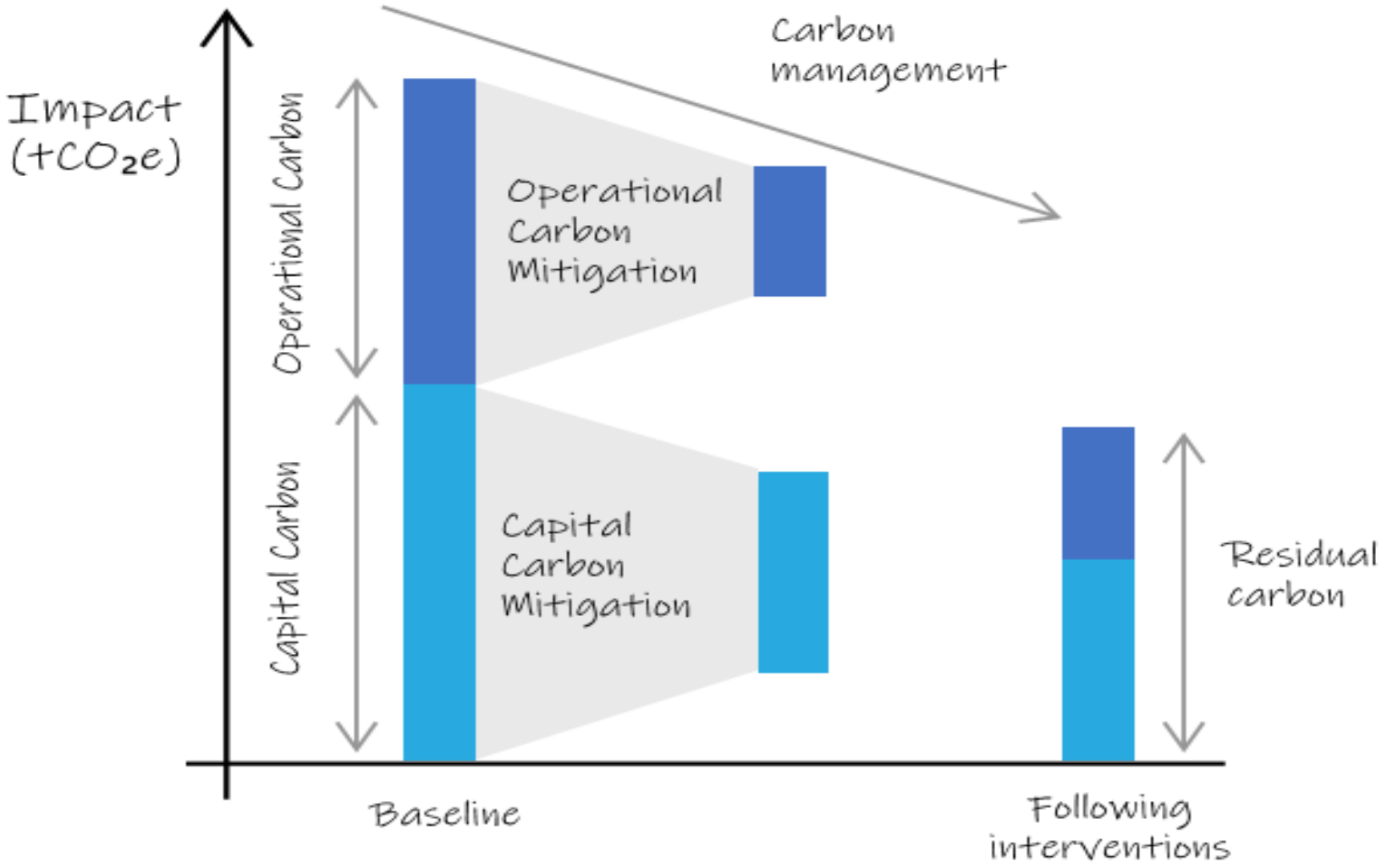
Operating the railway

Carbon benefits

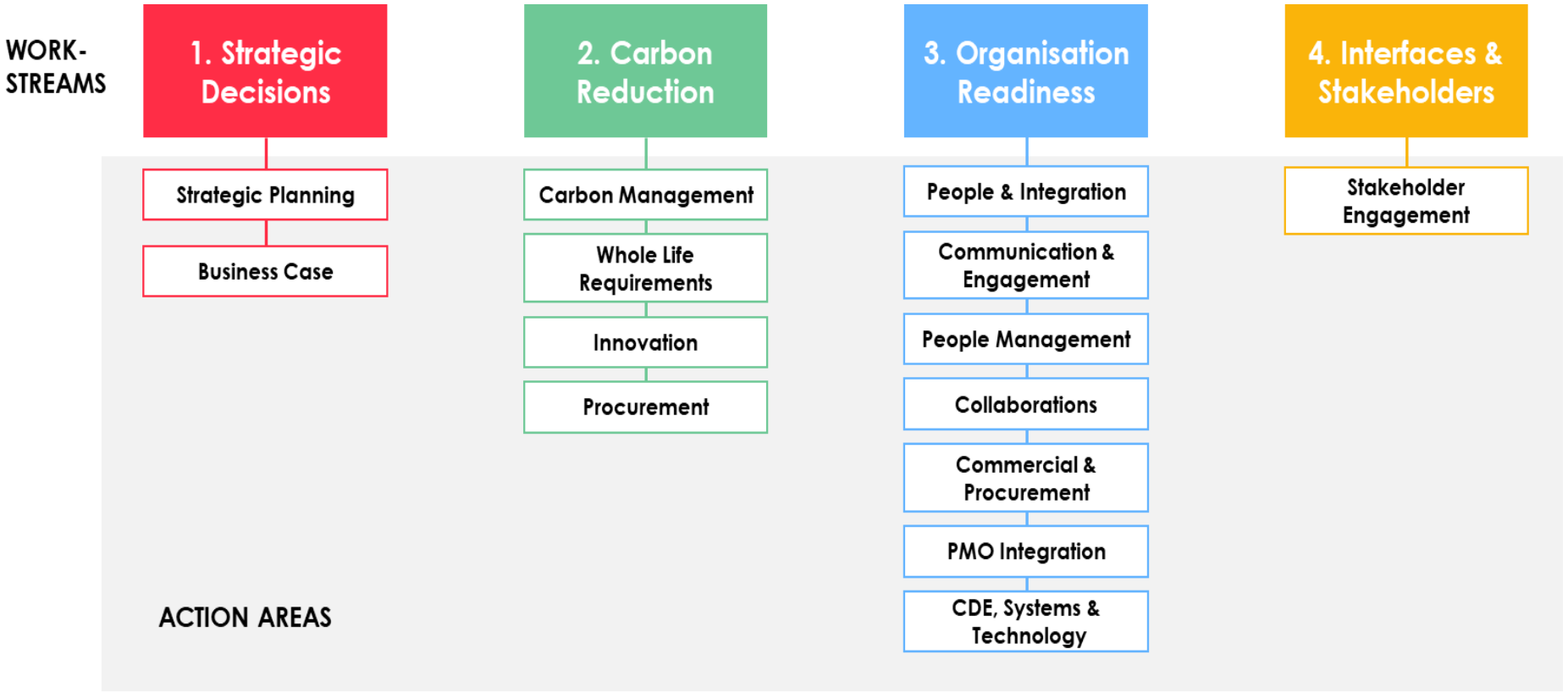
Carbon removals

Out of scope




Carbon management
Impact (tCO2e)
Operational Carbon
Capital Carbon
Operational Carbon Mitigation
Capital Carbon Mitigation
Residual carbon
Baseline
Following interventions

Workstreams and Action Areas



Journey to Net Zero Carbon

~ Scoping Report

- Low carbon design approaches
- Net Zero Carbon Railway scope
- High-level baseline for scenario analysis

~ Preliminary Environmental Information

- Carbon baseline
- Draft mitigations
- Outline Net Zero Carbon target
- Shadow carbon pricing
- Carbon literacy training in place
- Embed Life Cycle Design Tool

~ Environmental Statement

- Updated carbon baseline
- Secured mitigations
- Draft Net Zero Carbon target
- Offsetting and removals approaches
- Carbon literacy accreditation
- PAS 2080 accreditation for carbon management

~ Development Consent Order approval

- Final carbon baseline
- **Final Net Zero Carbon target**
- Net Zero Carbon Action Plan published
- Business ambition for 1.5C

~ Delivery

- Carbon targets for each contract
- Emissions reductions targets for construction sites
- Supply chain incentivisation
- Integrated carbon modelling in detailed design

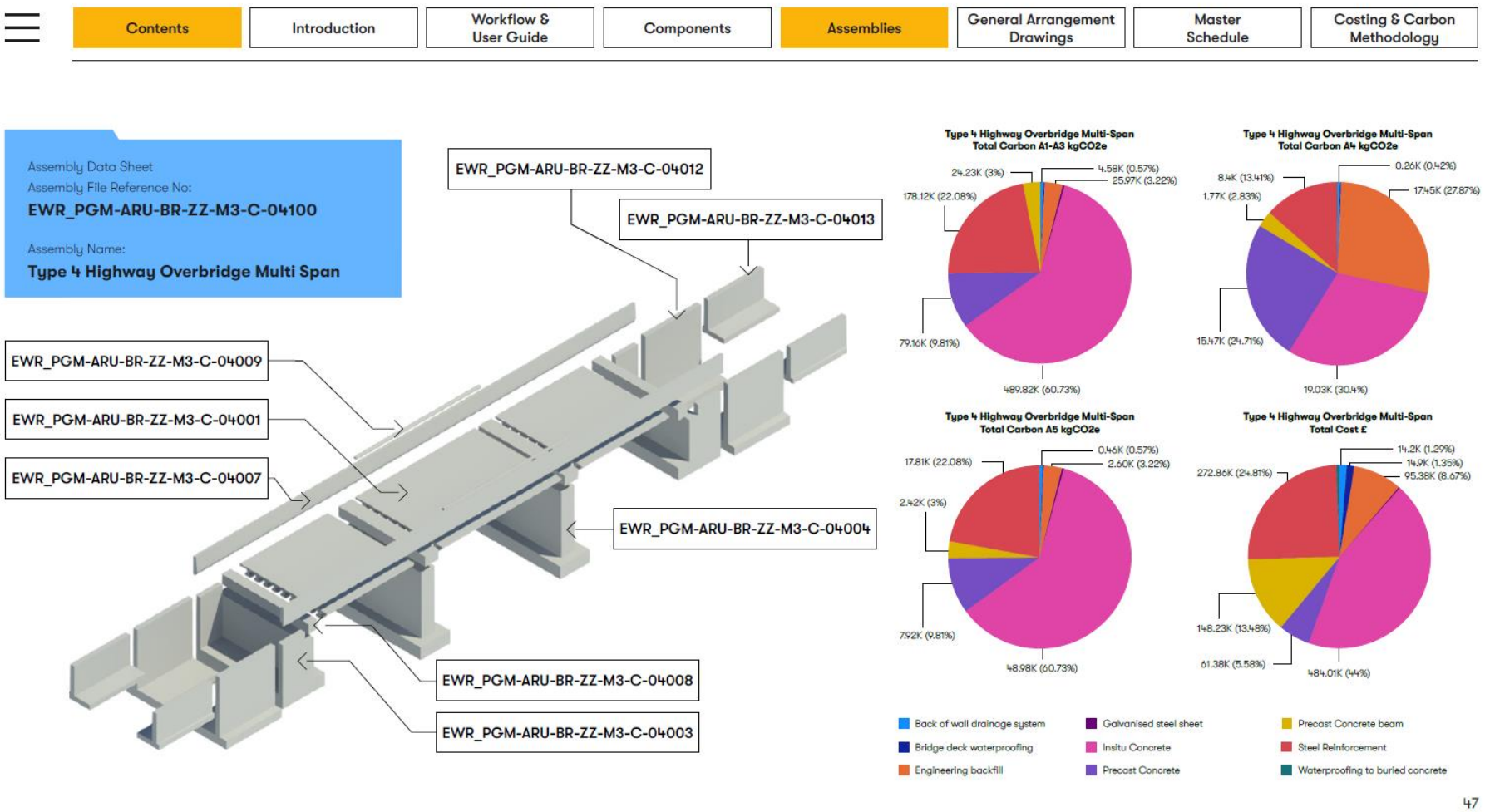
Reaching net zero

Achieving DCO consent is a journey with many stage gates along the way. As the project progresses the level of design detail increases, with the level of carbon information increasing in tandem.

Earlier in the process, we carry out high-level baselines of the whole life carbon using benchmark data scaled to the size and length of different assets, such as bridges, and add operational emissions based on carbon factors for different traction power types.

As we progress our understanding improves, providing more confidence in whole life carbon. This in turn facilitates more robust targets for reduction, until we can finalise the net zero carbon target before delivery.

Viaducts and Bridges ‘pathfinder’



Reducing emissions in key materials

The challenge:

Across infrastructure, there are potential cost impacts associated with reduction targets for embodied carbon in key materials such as steel and concrete. The scale of change required in manufacturing, construction and infrastructure delivery between now and 2030 is substantial.

The response:

- Early supply chain engagement
- Iterative development of the carbon baseline as design develops
- Setting an informed target and embedding in procurement activity
- Working within key DfT and government initiatives (e.g. Industrial Deep Decarbonisation Initiative and Shared Digital Carbon Architecture)
- Whole life carbon consideration in scenario analyses
- Carbon-led design approaches

Key takeaways

- EWR has a well established carbon management process that is in-line with PAS 2080 (standard for carbon management frameworks) and relevant carbon quantification standards.
- The carbon assessments we develop are embedded into design processes, ensuring we can use them to reduce emissions rather than simply count them.
- EWR is well prepared to deal with requirements from DfT relating to carbon management and reduction in the business case, as well as the requirements of the DCO process.
- We have used bridges and viaducts as a ‘pathfinder’ for carbon assessment. We will assess other assets in such detail as we move through the DCO process.
- The incoming requirements on concrete and steel emissions reductions will impact EWR as it will all projects. We are well sighted, consider it in our risk processes and are working across government to ensure we embed best practice.