Live Lab – Carbon Appraisal Tool

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Forecasting Carbon Tool – Live Lab - Approach

- This is **NOT** about quantifying carbon footprints! Takes these as inputs, but even then…
- It is about working out the **change** in Carbon between scenarios: does doing "X" decrease or increase carbon and by how much

Change not absolute

- I come at this from the perspective of economic appraisal e.g. DfT'sTAG, Treasury Green book

- Carbon expended can change in two key aspects relevant to answering this question
- 1) Overtime even doing what we do today: e.g. steel production decarbonises (maybe shift to electric blast furnaces) resulting in less carbon impact when replacing lighting columns : Need to work through a **Do-Minimum Carbon profile** – also called carbon baseline
- 2) By scenario: what changes (in carbon terms) when we introduce "X" **relative** to the Do-Minimum

- **Carbon Case for intervention X = (Carbon profile in Do Minimum) – (Carbon profile in Do Something)**

Our approach to quantification – An example of Carriageways

Carbon expended on the network in a given year

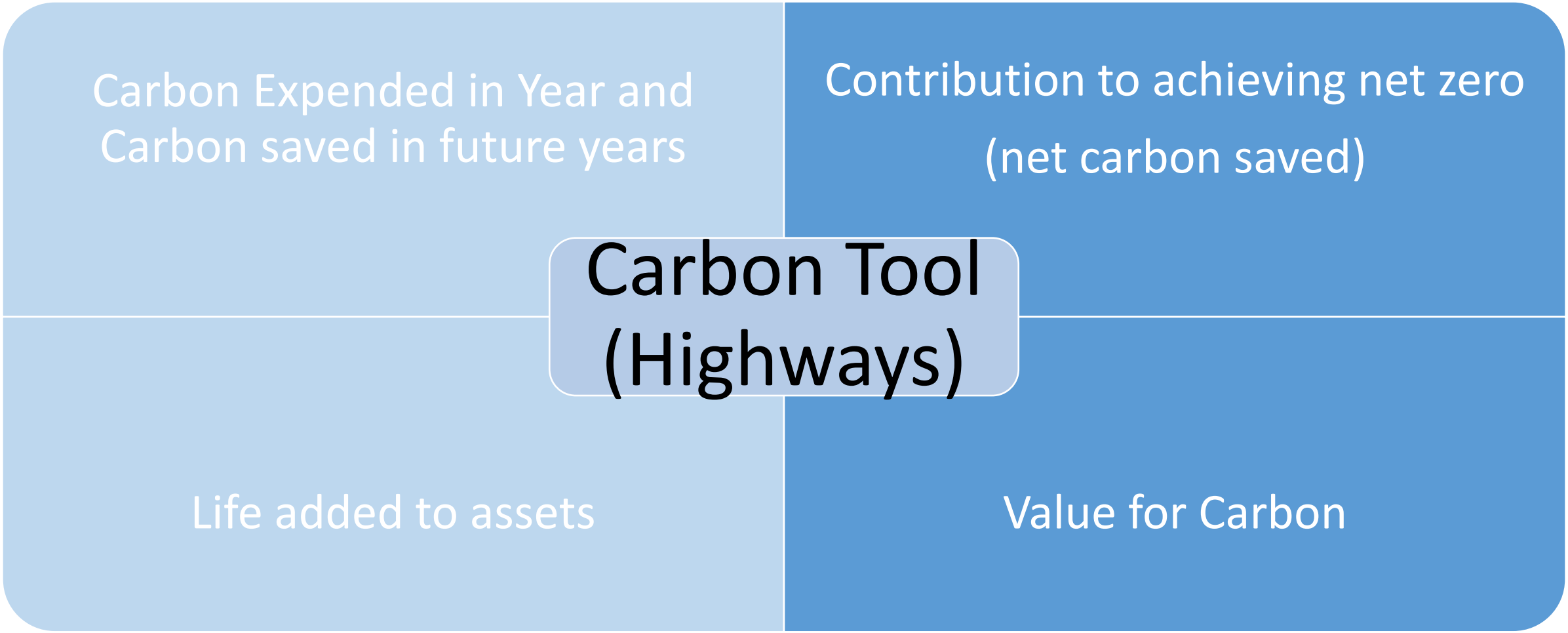
Life added to the network

Future carbon saved from deferring reconstruction

Applies to: Forecasting (Optioneering and Business Cases) & Evaluation and Benchmarking

Tool developed for NHT CQC Members: based on “minimum requirement” of publicly held data

Example Outputs



A way forward

What is likely to change?
- Sets the boundary of our work
- Scope of Tool

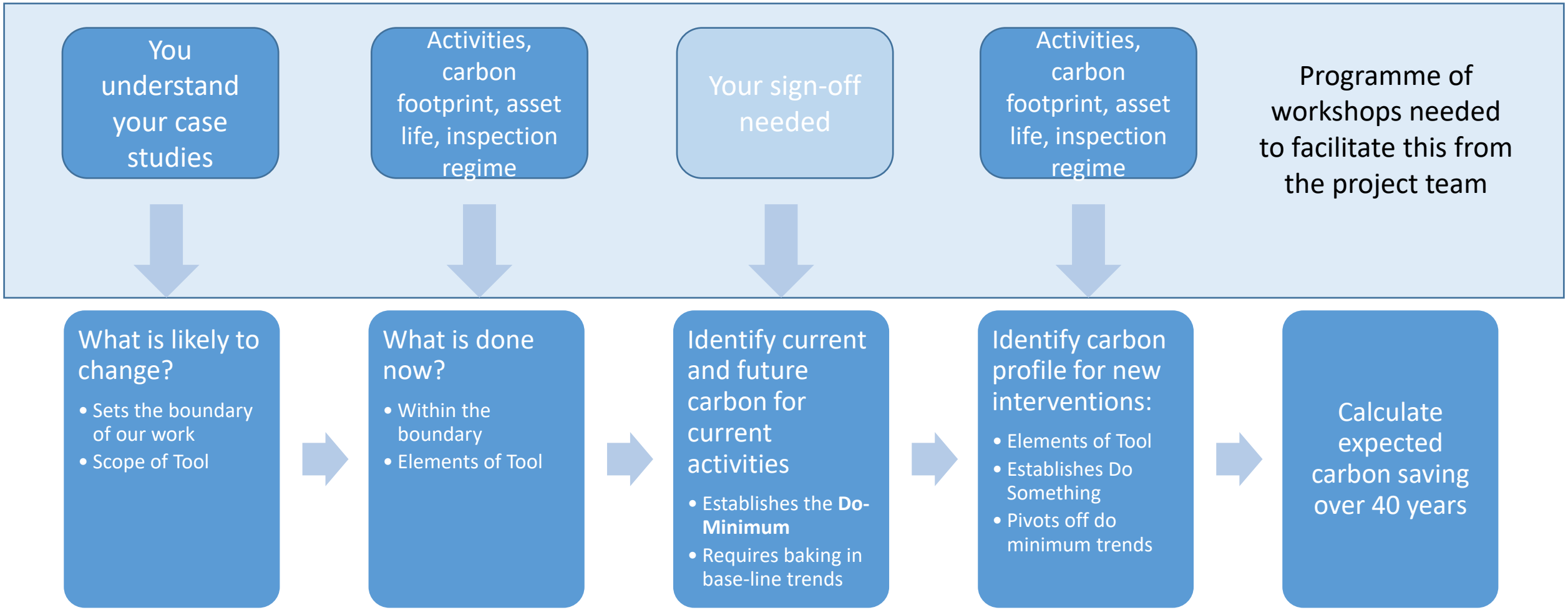
What is done now?
- Within the boundary
- Elements of Tool

Identify current and future carbon for current activities
- Establishes the **Do-Minimum**
- Requires baking in base-line trends

Identify carbon profile for new interventions:
- Elements of Tool
- Establishes Do Something
- Pivots off do minimum trends

Calculate expected carbon saving over 30 years

A way forward



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Information on the NHT Network

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