

# Carbon tracking and calculation

**16 January 2024**

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# Company calculation – tier one



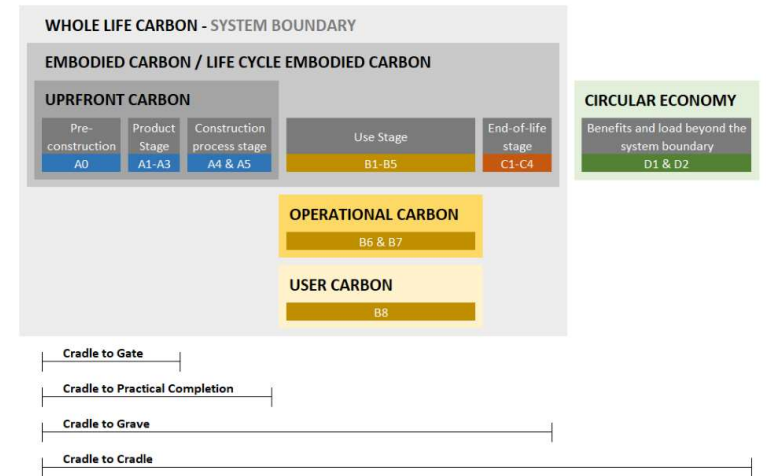
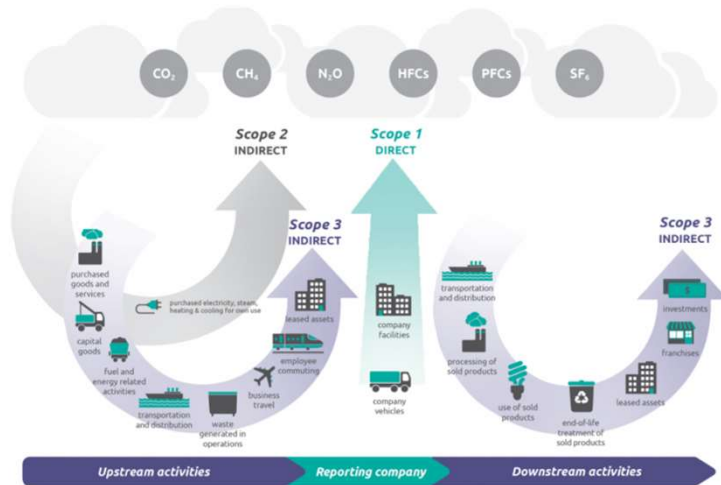
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# The Carbon Tracking Balancing Act



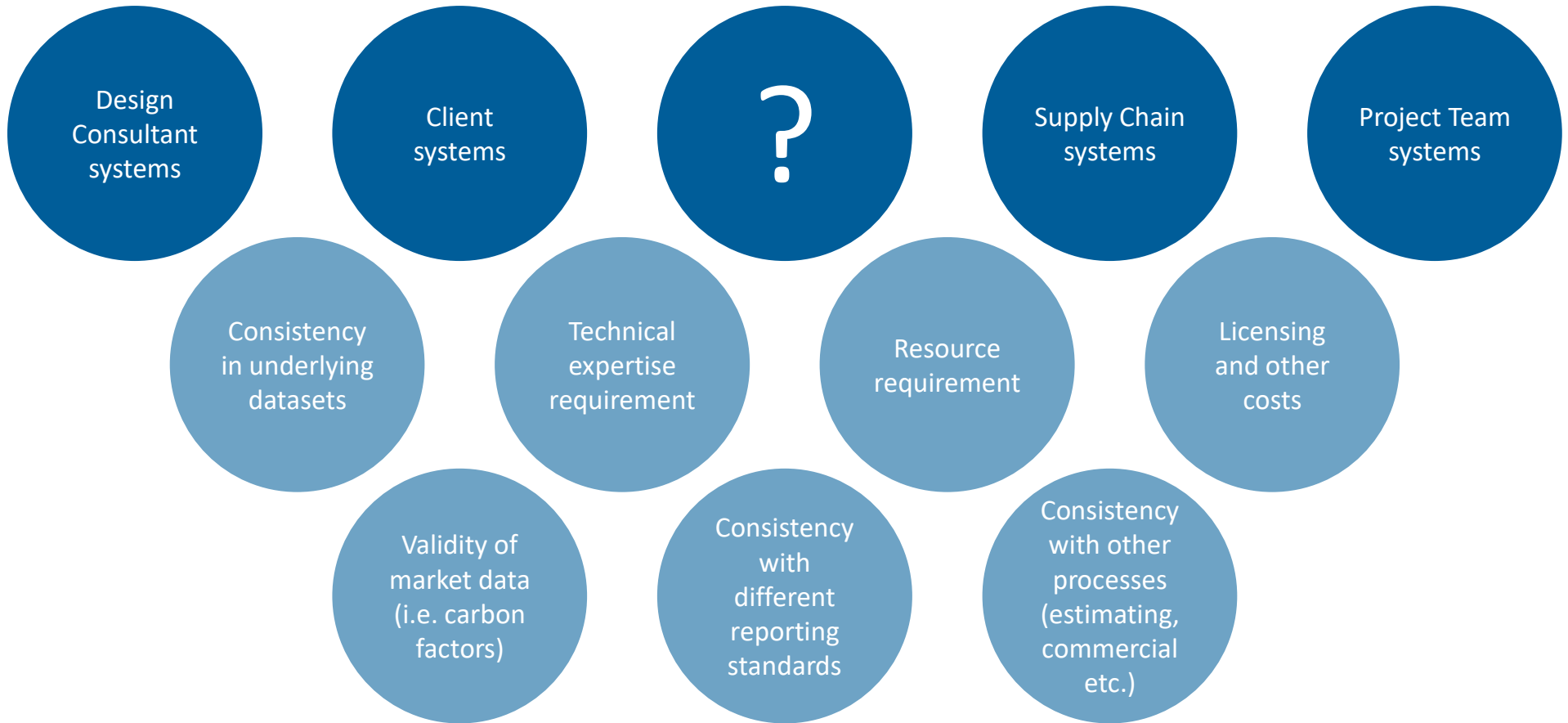
## Corporate perspective:

- Scope 1, Scope 2 & Scope 3. Direct vs. Indirect, Upstream & Downstream activities...
- Linked to corporate ambitions, sustainability strategies, Annual Report & Accounts, SBTi etc.
- Greater focus on actual data but generally collected retrospectively

## Project Perspective:

- A0, A1-A3, A4 & A5, B1-B8, C1-C4, D1 & D2. Upfront, embodied, whole life, operational, user...
- Linked to project ambitions, contractual carbon targets and reporting etc.
- Greater focus on estimating/carbon calculating but done in advance

# The Carbon Calculating Balancing Act



## Carbon Tracking & Calculation – Solutions

### There is no silver bullet!

- You are not likely to find a system that:
  - Balances the corporate and project needs;
  - Works with designer, client, sub-contractor and project team needs;
  - And comes in budget for time and cost!

**But, you can certainly find systems/processes that satisfy a lot of these requirements and integrate with other systems/processes. Focus on transparency and flexibility.**



### Causeway Scope 3 Initiative:

A new third-party system that will collect “as-built” carbon data across the supply chain, linked to invoicing.



### Integrating with existing project management system (Candy):

Emulating finance and following tried and tested approaches.

## Causeway Scope 3 Initiative

### Using invoice data to measure scope 3 emissions

**Invoices represent the actual materials and services consumed and quickly allow buyers and sellers to see the impact of the changes they make as they implement their net zero strategies.**

- Causeway Tradex already processes millions of invoices from thousands of suppliers amounting to billions of construction value.
- Using Causeway Tradex in this way, Scope 3 emissions can be associated with specific projects and specific transactions, and emissions measured in real-time as a building or structure is constructed.
- We are currently engaging with suppliers, as well as validating and testing elements of this software, preparing for a formal launch later in the year. The project is also being supported via a knowledge partnership with the Engineering Department at the University of Bath.



#### Real-time carbon data

Provides accurate, automated embodied carbon data from suppliers to contractors



#### Measure actual 'as-built' material

Measures embodied carbon of actual purchased materials (rather than planned) via invoice data from Causeway Tradex.



#### Consistent carbon data

Uses consistent carbon factors with clear data provenance



#### Supporting net zero

Provides output data to support analysis, decision-making and sustainability goals

## Candy Carbon Integration

We have incorporated carbon data into Candy, our existing cost estimating software:

- Attaching units of carbon to labour, plant, materials and subcontract resources in Candy meant that A1 – A5 carbon is estimated accurately, reflecting methodology, supply chain declarations and transportation estimates.
- Candy automatically calculates carbon alongside cost for each resource and activity as the price is built up. Option modelling and change is more easily processed as carbon and cost are updated in parallel. Common coding feeds backs both cost and carbon data into the benchmarking system, helping us model scenarios and make better decisions on the next project.
- Backup calculations in Excel provide transparency into how carbon units are derived for each resource and provide an audit trail.
- Having detailed carbon forecasting in place helps us to continue to target areas for improvement through project delivery stage



**Any questions?**



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