

Whole-Life Value Workstream & Procuring for Value Project

Dr Isolda Agusti
Construction Innovation Hub

January 2020

Driving Better Outcomes



Workstream Aim



“Developing, validating and embedding within industry, a consistent and transparent approach to the definition and assessment of Whole Life Value across all asset lifecycle phases”.

Workstream Objectives

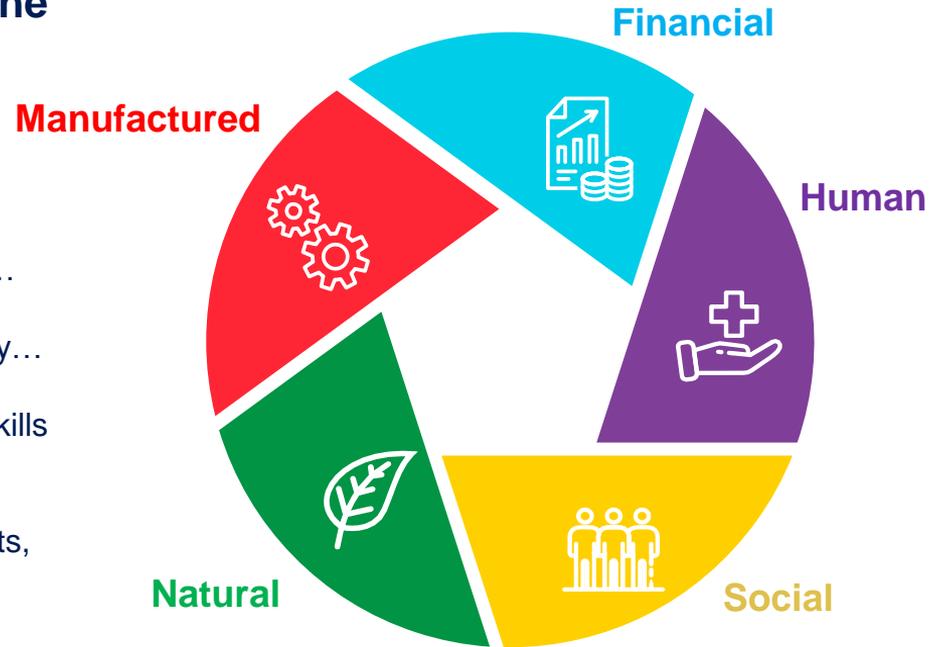


- **Detailed review** of relevant existing frameworks, methodologies, tools and datasets
- Development of a clear and consistent **'Value Framework'** covering social, environmental and economic metrics as they apply across asset lifecycle phases
- Robust, evidence-based **benchmarking** against the value framework to support a data-driven approach to decision-making across asset lifecycle phases;
- Development of relevant **free-to-industry tools**, underpinned by the above to support decision-making across asset lifecycle phases (e.g. PfV project)
- **Data collection** for, and **validation** of, the value framework and developed tools based on its application on real-world projects, past and present.
- Consideration for, and development/adoption of, the **commercial & business models** required to enable a value-based approach to asset decision-making, and;
- Identification and development of the **skills & capabilities** required within the industry to support a data-driven, value-based approach to asset decision-making.

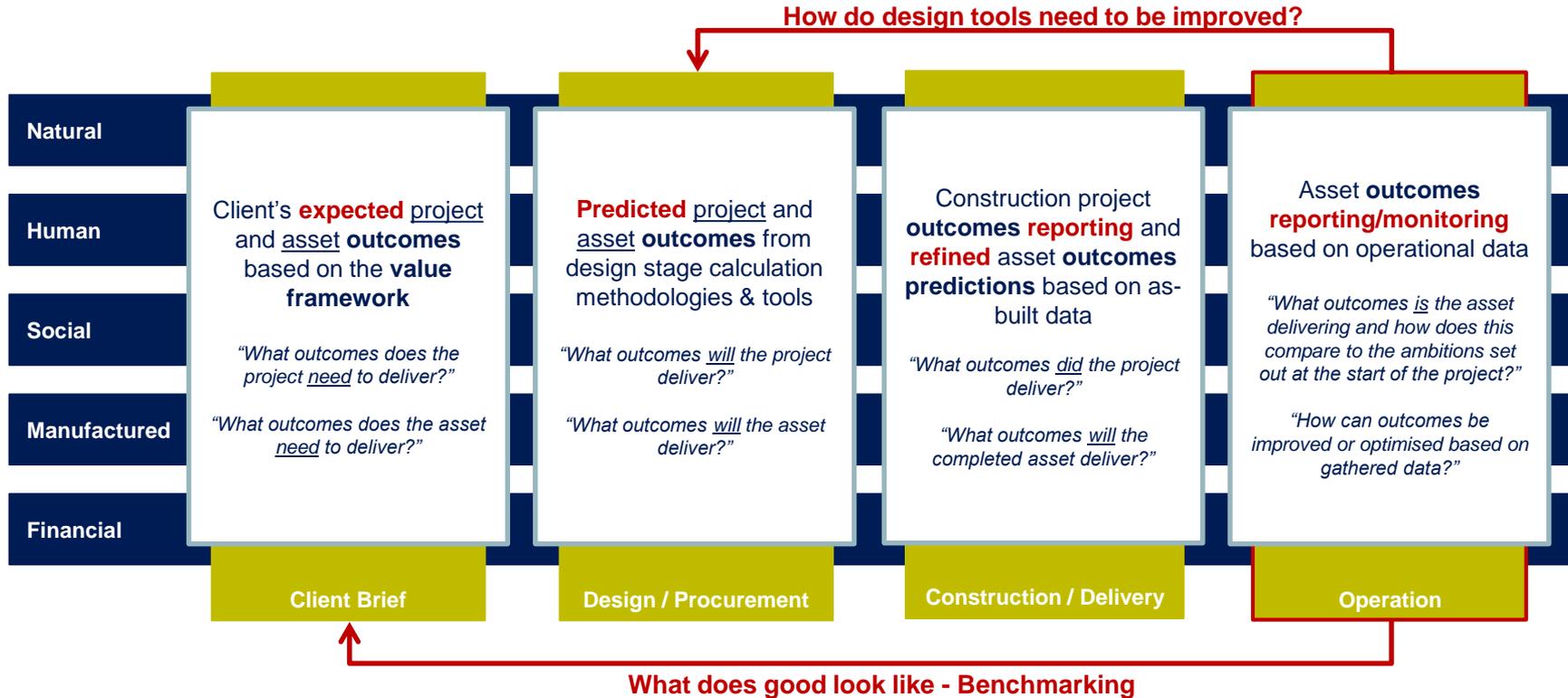
Applying the 'Five Capitals' Model

The *Value Framework* will be based on the **5 Capitals model, covering:**

- **Natural Capital:** embodied carbon, operational energy, water use, biodiversity...
- **Financial Capital:** capital cost, operational cost...
- **Manufactured Capital:** quality, time, productivity...
- **Human Capital:** employment, apprenticeships, skills & training, health & wellbeing...
- **Social Capital:** community engagement & benefits, supply chain accessibility, responsible sourcing...



Data Driven Decision-Making



Key Workstream Challenges

	Client Brief	Design / Procurement	Construction / Delivery	Operation
Natural	What metrics and measures should we use?	What specific tools and methodologies are available?	What project data is available?	What asset data is available?
Human				
Social	What does/should good look like for each client?	How can we verify these discrete tools and methodologies?	How do we verify the quality of that data?	How do we verify the quality of that data?
Manufactured				
Financial	What external or policy factors need to be accounted for?	Can we support multiple tools and methodologies?	What about data ownership and access?	What tools are available to support optimisation?

Applying the Value Framework: *Procuring for Value Project*

Procuring for Value Project

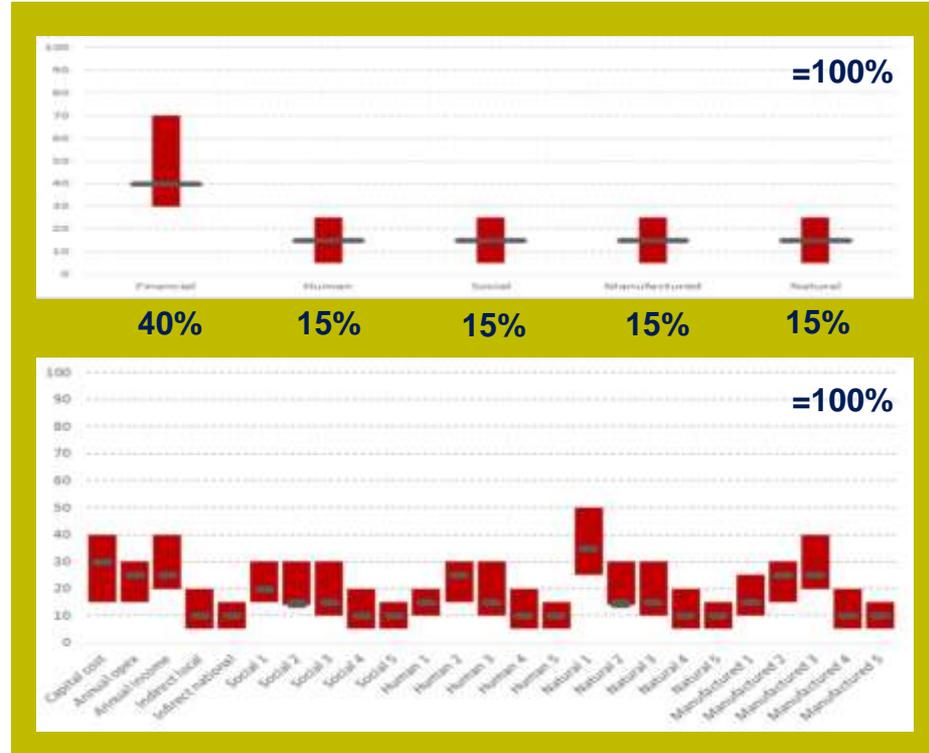


- Development of a software tool, based on the Hub's *Value Framework*, to support value-based decision-making during procurement of new asset delivery projects.
- Practical tool to **drive a change of behaviour** in the procurement process leading to much greater alignment between policy and procurement behaviour.
- Joint initiative between the Construction Innovation Hub and the Construction Leadership Council's (CLC) Procuring for Value working group.
- Building on IPA's Transforming Infrastructure Performance programme and CLC work, supported by industry (CIC, Constructing Excellence, ACE, RIBA, RICS, Arup, etc).



PfV Tool Concept (In Progress!)

- 1. Project Information:** Used to determine relevant capital/metric benchmarks and limits for type of project, location, etc.
- 2. User Weighting:** User weights each of the 5 capitals and their metrics to suit local definition of 'value' (within defined limits).
- 3. Benchmarks:** Tool shows user benchmark data and upper and lower limits for each metric (user may adjust limits where appropriate).
- 4. Bid Data:** Actual design values are then entered for each metric from tender information.
- 5. Baseline Score:** The aggregation of all the benchmark 'scores' across all metrics represents a normalised score of 1000.
- 6. Final Bid Scores:** New score for each capital/metric and subsequent total score generated based on user defined weightings. (>1000 = value added, <1000 = value below baseline).



Thank you for your attention!

Dr Isolda Agustí

Whole-Life Performance Lead

Isolda.Agusti@bregroup.com



Join the transformation



www.constructioninnovationhub.org.uk



@CIH_HUB



Construction Innovation Hub

#TransformingConstruction

#ConstructionInnovationHub