

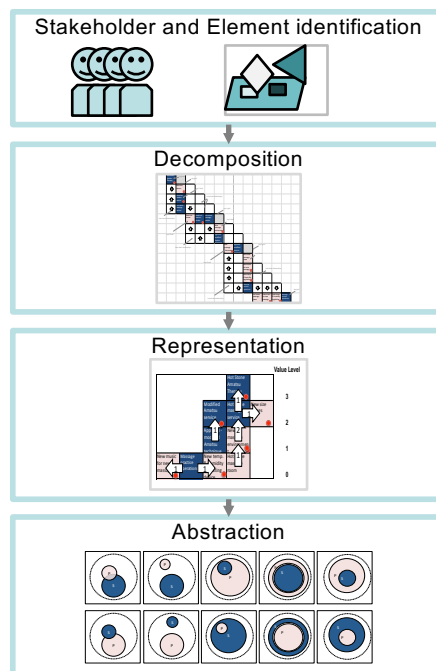
System Design Characterisation (SDC)

Dr. Man Hang Yip
mhy29@cam.ac.uk
Dr. Imoh Ilevbare
imi22@cam.ac.uk

SDC is a workshop approach that supports the new product/service development process, resulting in clearer design specifications.

Aims

- ❖ Clarify the structure of a new system idea through decomposing the overall design into its elements by the nature of their relationships.
- ❖ Surface potential design complexities and suggests ways to simplify.
- ❖ Align the company's understanding of the potential value of the product and service portions within the new system.



Progress

Two companies had expressed interests in applying SDC to their new product/service concepts, and one requested to explore the suitability of SDC for technology deployment. One SDC workshop was held in 2018 and one arranged in the new year.

Deliverables

- ❖ Customised facilitated workshop(s)
- ❖ Digital copies of workshop output:
 - ❖ Stakeholder identification table
 - ❖ Element identification & relative importance table
 - ❖ Decomposition diagram(s)
 - ❖ Mini representation diagram(s), with summary of how the design may be simplified
 - ❖ Abstraction diagram
- ❖ STIM companies may apply SDC to other new design concepts on their own

Future engagement opportunities

- ❖ In order to refine the SDC approach, 3 – 6 additional SDC workshops are needed.
- ❖ There are also opportunities to extend SDC beyond the scope of engineering design. SDC for technology deployment is being formulated. It explores how a relationship-based decomposition method could support companies to evaluate where and how to implement a new technology.

Further research

- ❖ Explore the contingent conditions that are most suitable for SDC application.
- ❖ Understand the configuration types proposed for engineering design, in terms of the content and context of the new design.

