

Research Opportunities for 21st Century Cities



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Themes

- Journey so far and the road ahead
- The CRC LCL legacy
- Growing collaboration during project development
- The challenge of being end user driven in an industry of busy people
- No funding unless clear implementation pathway



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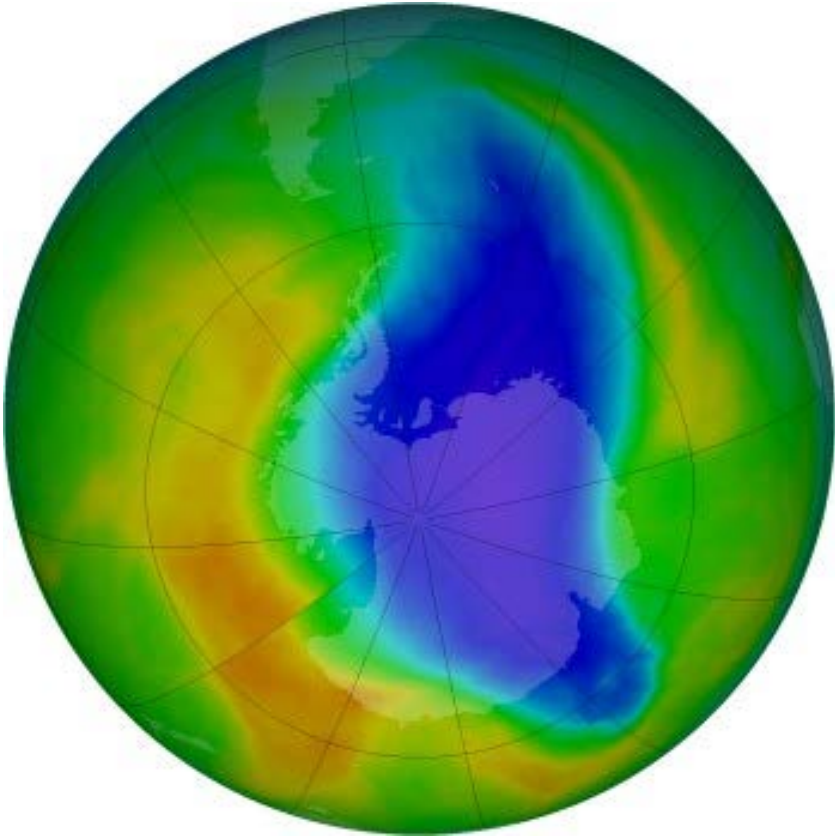
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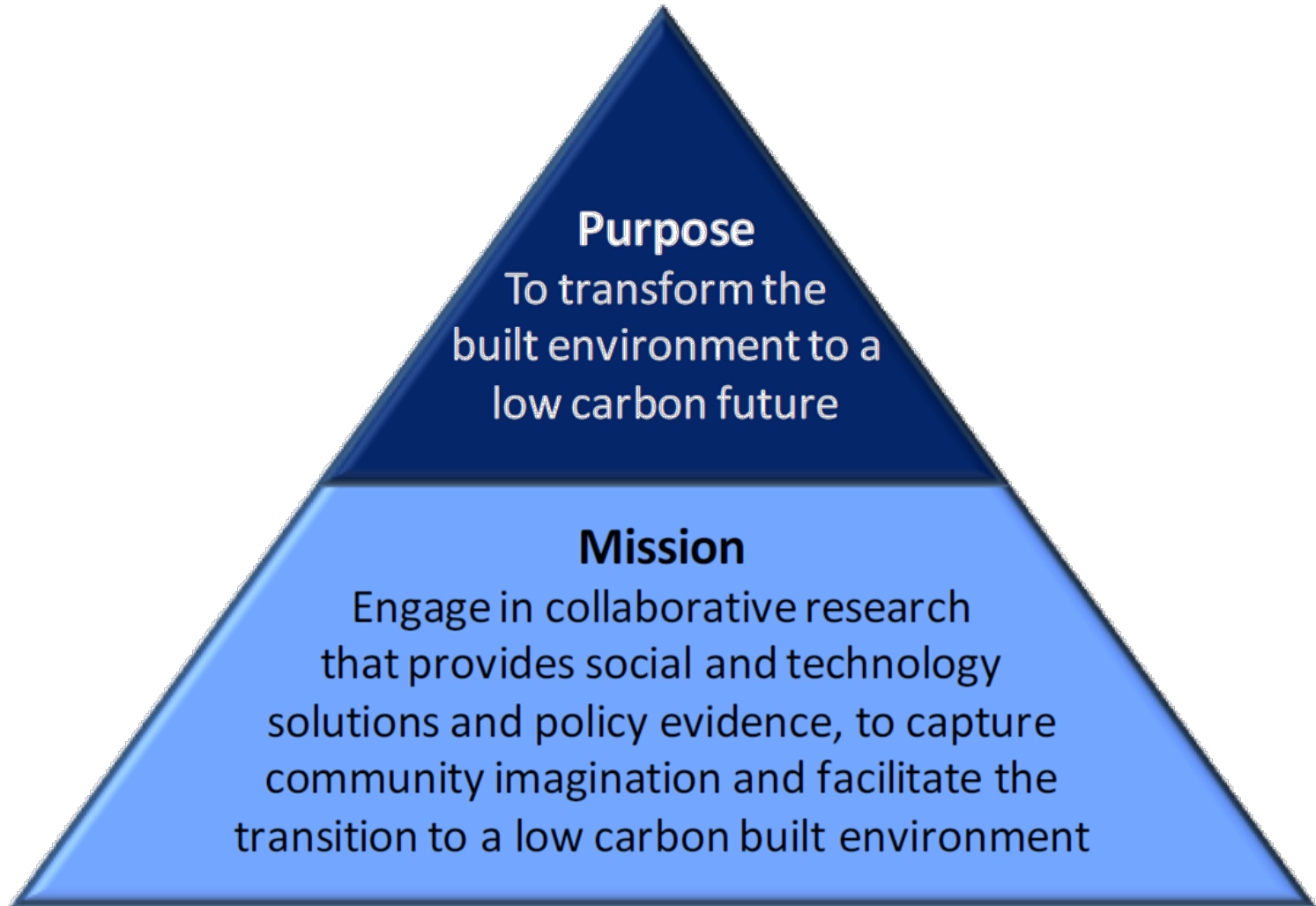
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Ozone Layer on Track to Recovery= Success Story



UNEP 10th September 2014

CRC LCL



CRC LCL

- **Built Environment focus**
 - Building scale
 - Precinct/urban scale
 - Community scale
- **Multi-disciplinary approach**
- **Focus on utilisation** (through governments, industry, professions and community)
- **Research excellence**
- **Skills and capacity building**





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Project ideas evolving from the collaborative workshops on day two of the 2013 Forum- action on 70% of the ideas

Concept Project Ideas

CRC Action in 2013/14

| | |
|--|--|
| 1. Living laboratories to shift the focus from 'liveability' to 'thrivability' | Started project RP3016 "EnergyFit Homes" looking at the language that can best express the lifestyle benefits of low carbon homes – with particular focus on the narrative at point of sale and lease |
| 2. Harnessing low carbon levers; a 'green sticks' approach to performance disclosure | |
| 3. Taking a consumer-demand focused, evidence based campaign to accelerate uptake of better products (creating demand in the market to support better speed to market) | Started project RP3021 "Media and Communication Strategies for Home Renovators" aiming to develop innovative media and communication strategies to drive mainstream adoption of low carbon products and practices |
| 4. Economies of tomorrow to promote a circular economy and boost local involvement in economic transition | |
| 5. A 'procurement code for co-design' to embed community co-creation in procurement models and project scoping | Started project RP3019 "Collaborative urban development planning" and a range of Living Laboratories that use co-creation to enrich the planning process in precincts |
| 6. Low carbon materials to reduce carbon across all infrastructure providers - promoting practical shifts through material choices | Started project RP2007 "Integrated carbon metrics" to enable precinct level carbon assessment and project RP2010 "Low carbon requirements in Built Environment Sector Tenders" |
| 7. Decentralised, low carbon water systems to go from drought proof to water positive communities | |
| 8. Education transformation; guides and resources for schools and workforce to build capacity in low carbon living | Started project RP3020 "online carbon accounting framework for schools" scoping study |
| 9. Institutional redesign to encourage a broader ownership model to drive low carbon infrastructure investment (through tax, regulation and legal channels) | Two PhD students working on community owned renewables |
| 10. Social networking for low carbon living. Community-based social marketing for better living through better housing | We are working with channel 9 and the sustainable housing industry to stimulate a national conversation on low carbon living (presentation Day 1 after lunch) |

Program Structure/ Impact Pathways



Program 1: Integrated Building Systems

- Harnessing the Australian sun
- Lowering the embodied carbon in buildings
- Mainstreaming low carbon buildings



Program 2: Low Carbon Precincts

- Designing integrated low carbon precincts
 - Digital information platform
 - Integrated assessment of design
 - Precinct-level demand forecasting for distributed infrastructure networks
 - Health and productivity co-benefits



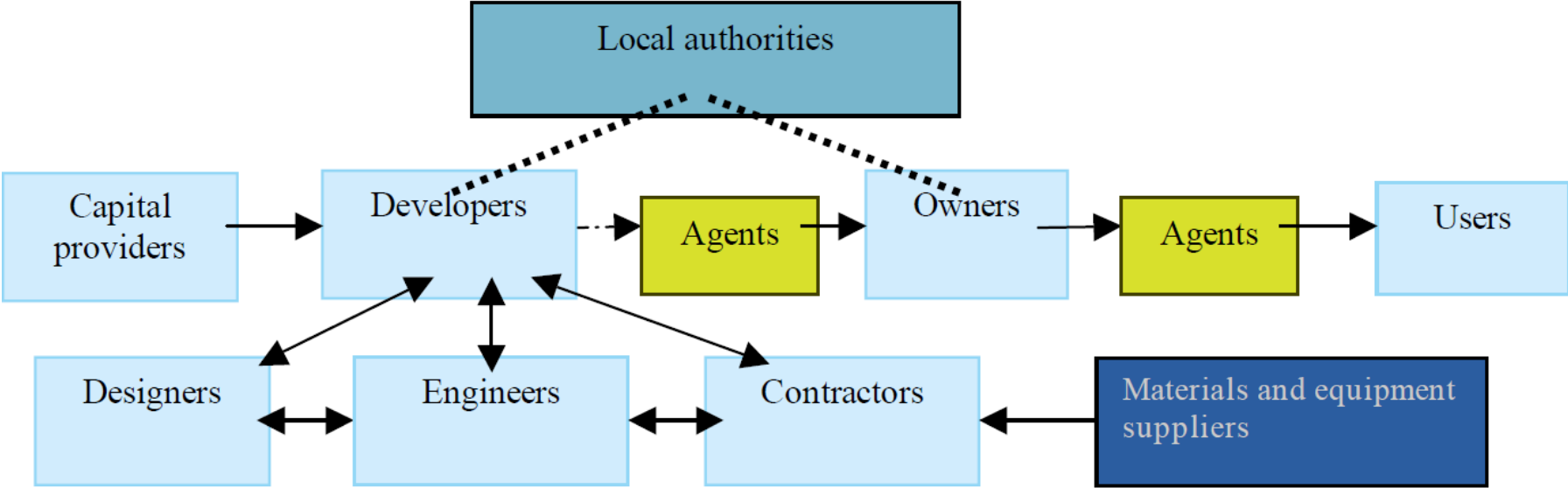
Program 3: Engaged Communities

- Evidence base for low carbon living policy
- Enhancing community engagement
- Living Laboratories as low carbon lifestyle narratives
- Enhanced education and capacity building

Themes

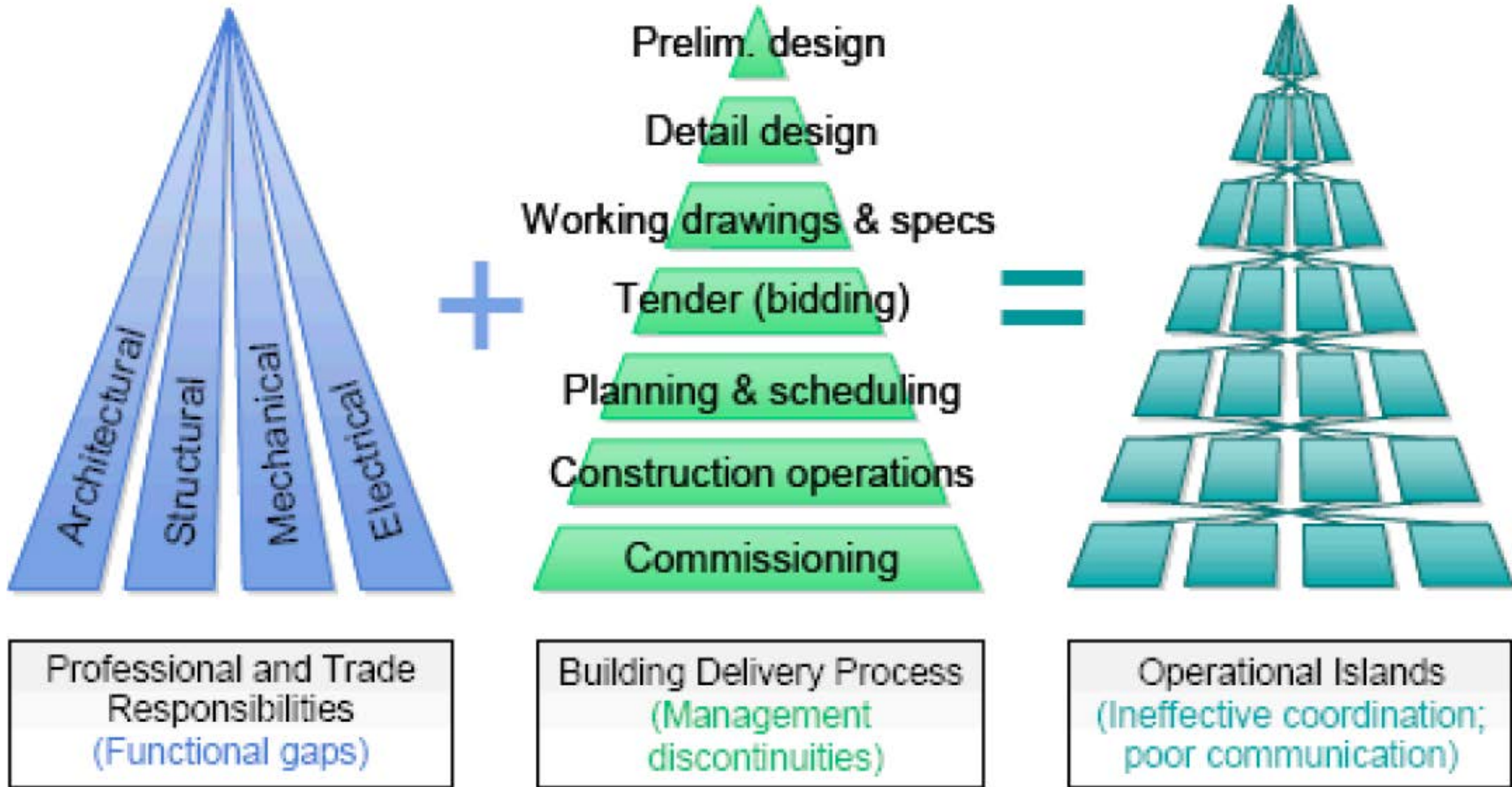
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The Complex Value Chain in the Built Environment



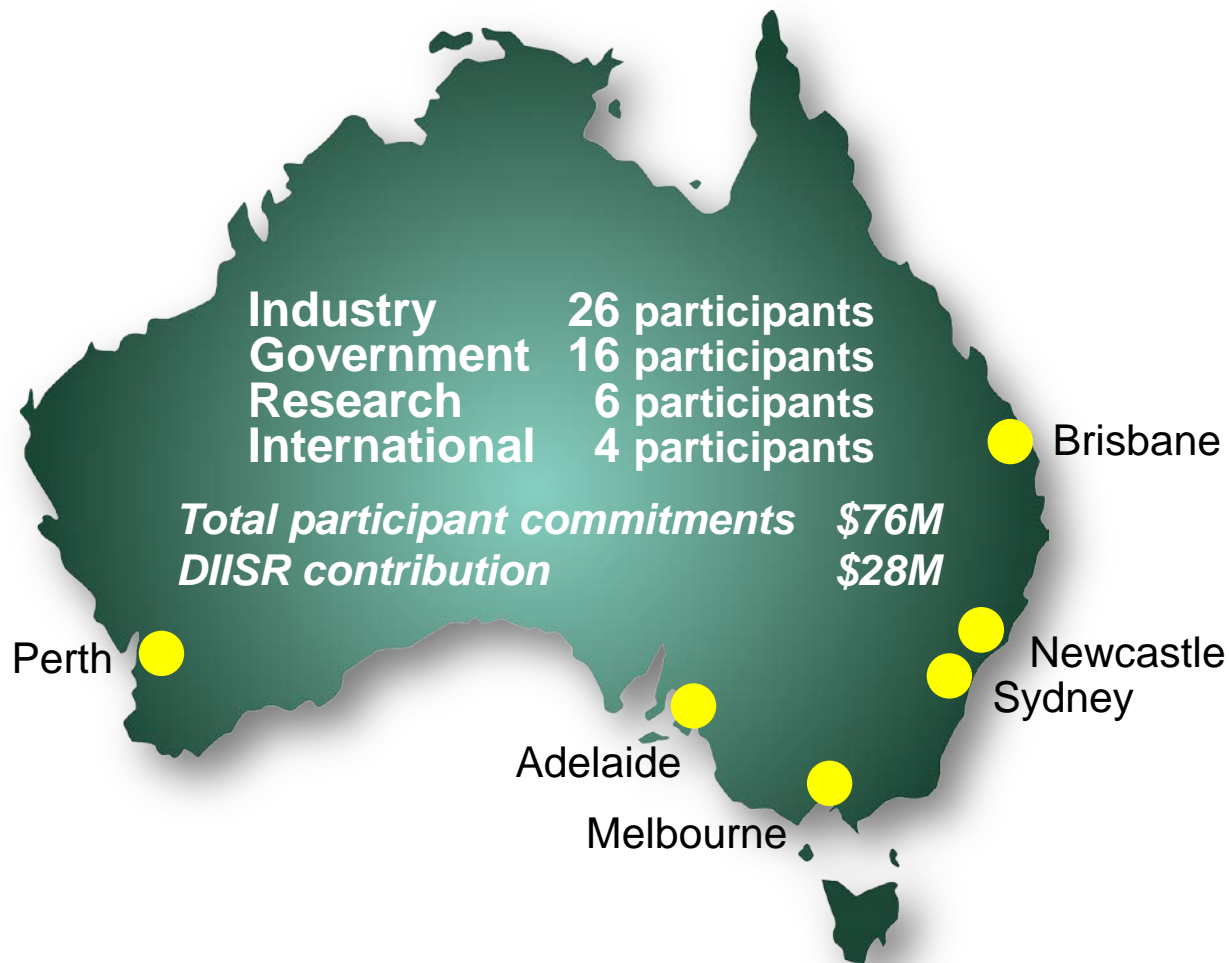
World Business Council for Sustainable Development (2007)

Exacerbated by gaps, discontinuities and poor collaboration



World Business Council for Sustainable Development (2007)

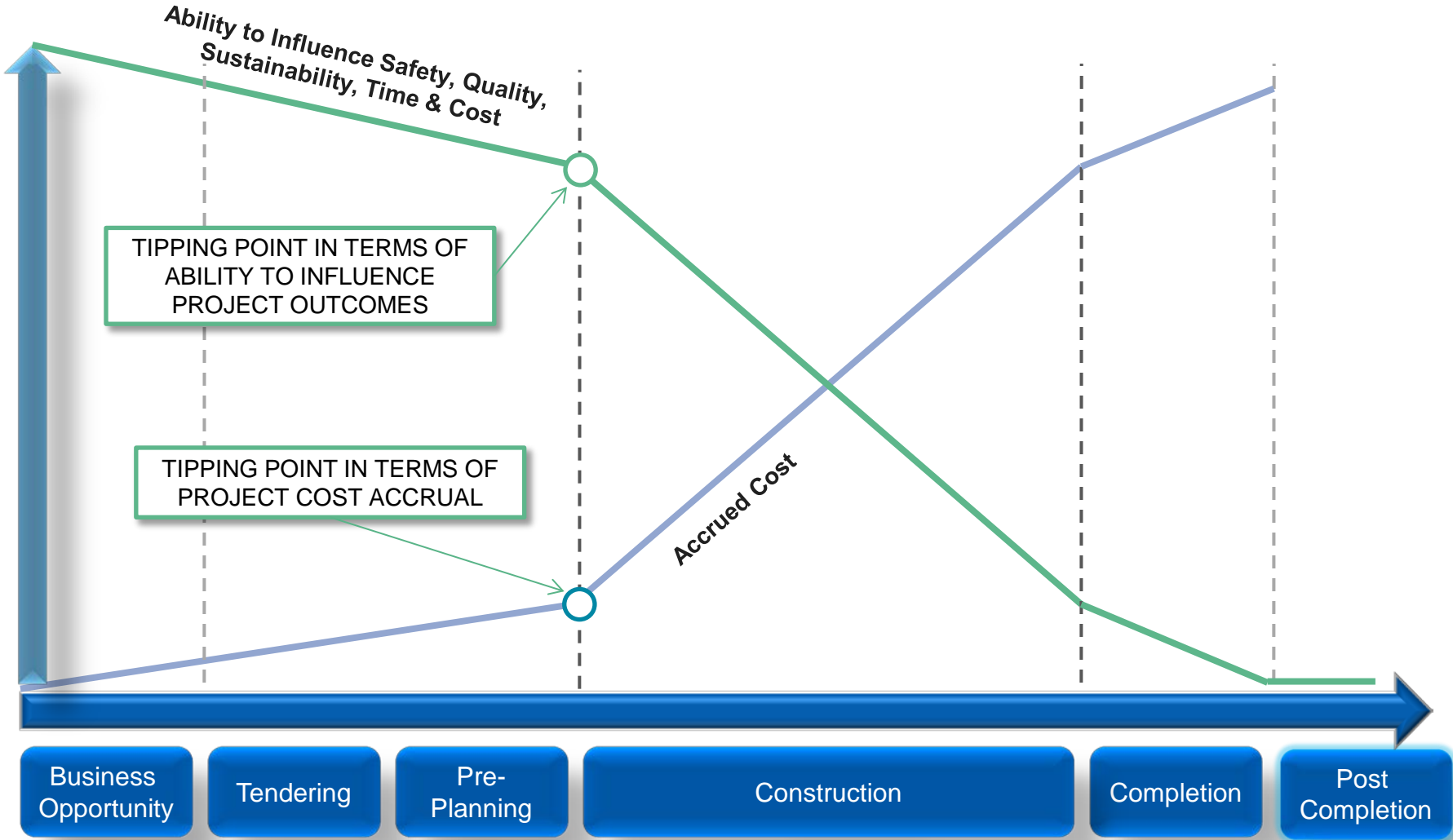
Legacy-Nodes of Collaborative Evidence-Based Built Environment Practice



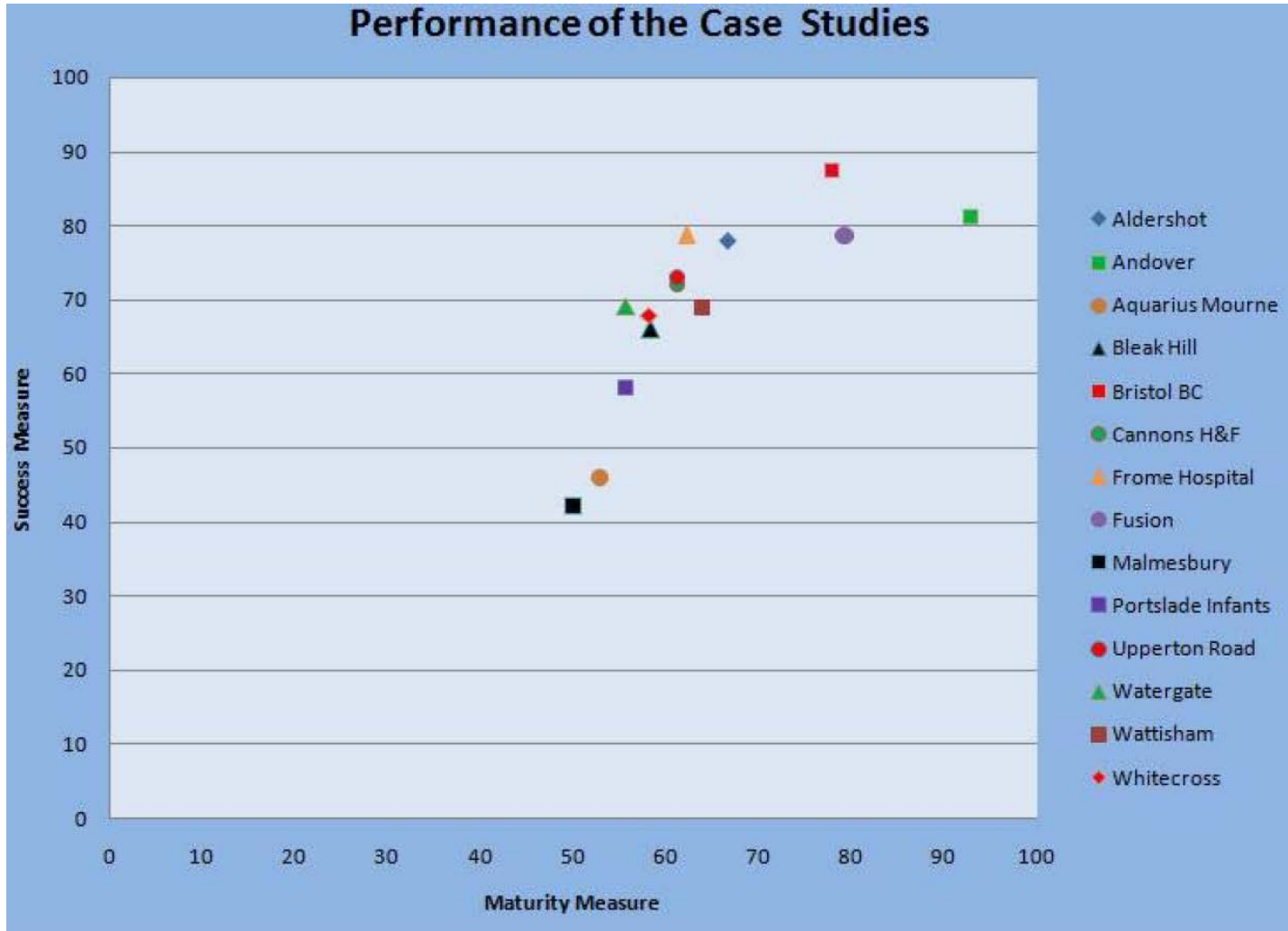
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Collaboration during research project development is vital



Mature Collaboration Delivers Higher Project Performance



UK Construction Industry Strategic Forum Task Force (2010)

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Themes-but wait...

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- **Monitoring our success partly by the maturity of the collaboration between our participants.**



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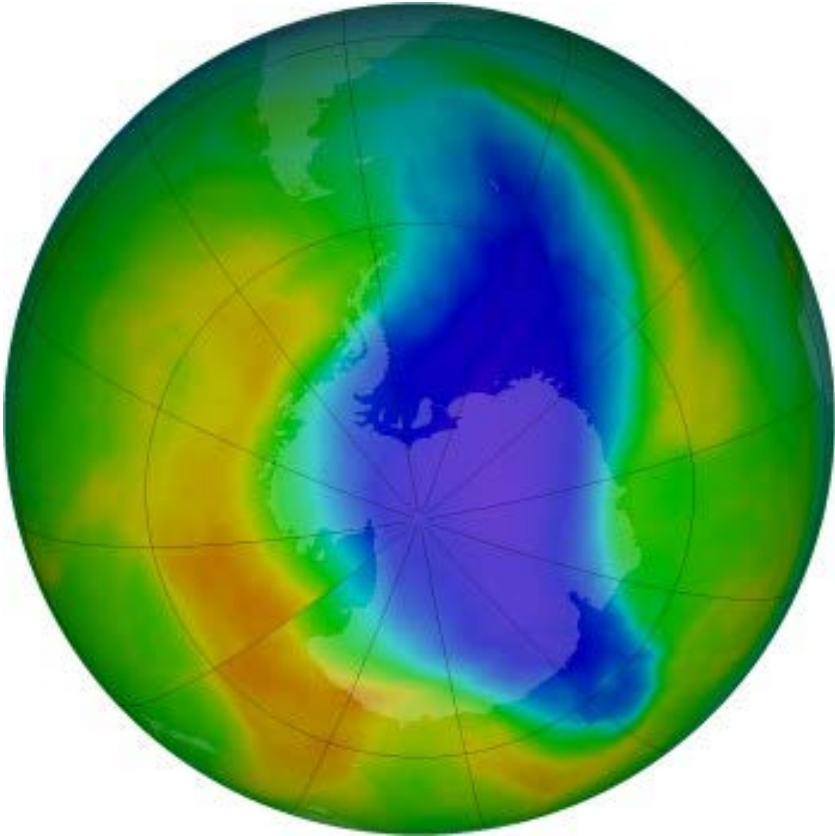




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