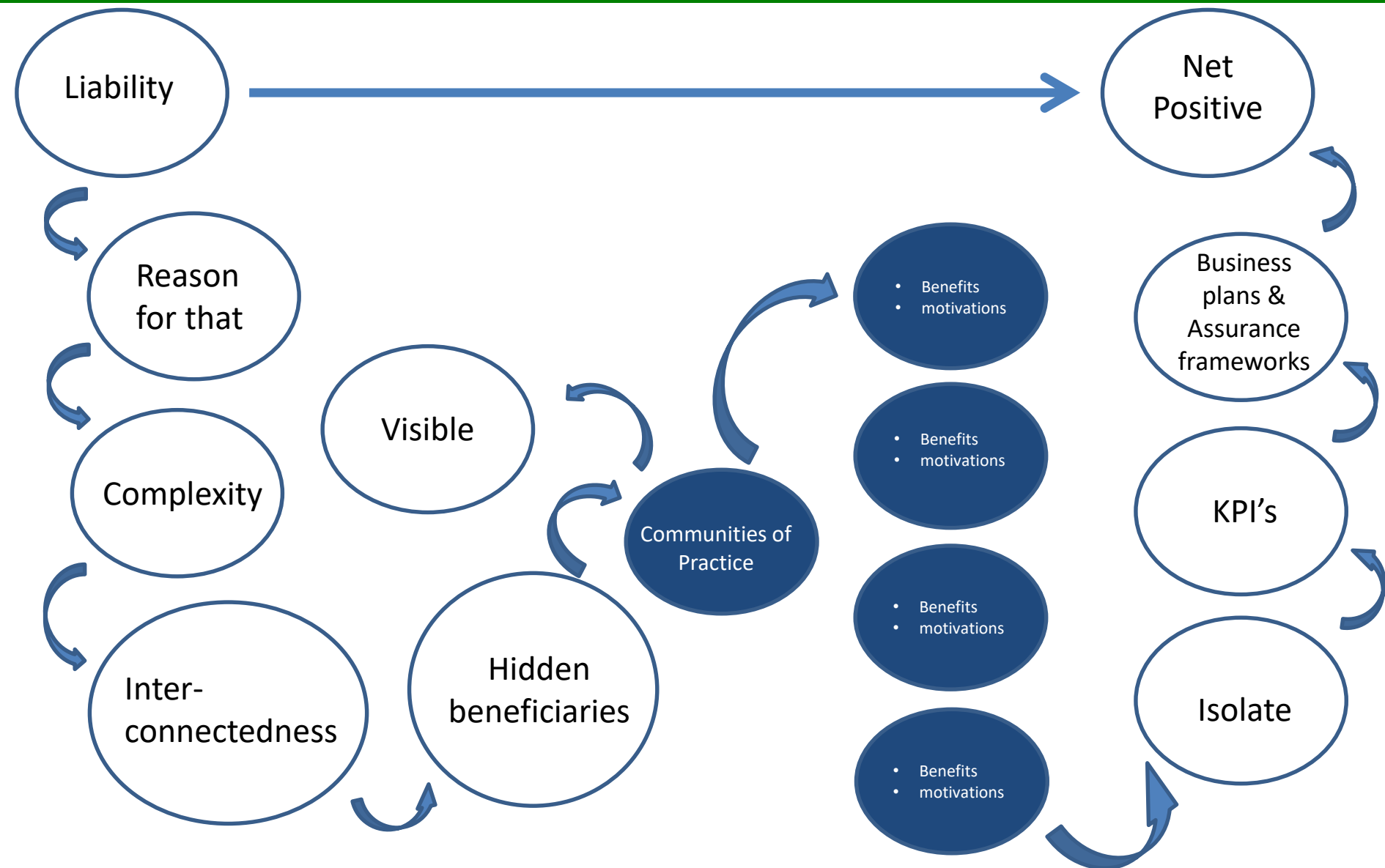


Nick Grayson

Climate Change and Sustainability Manager, Birmingham
City Council

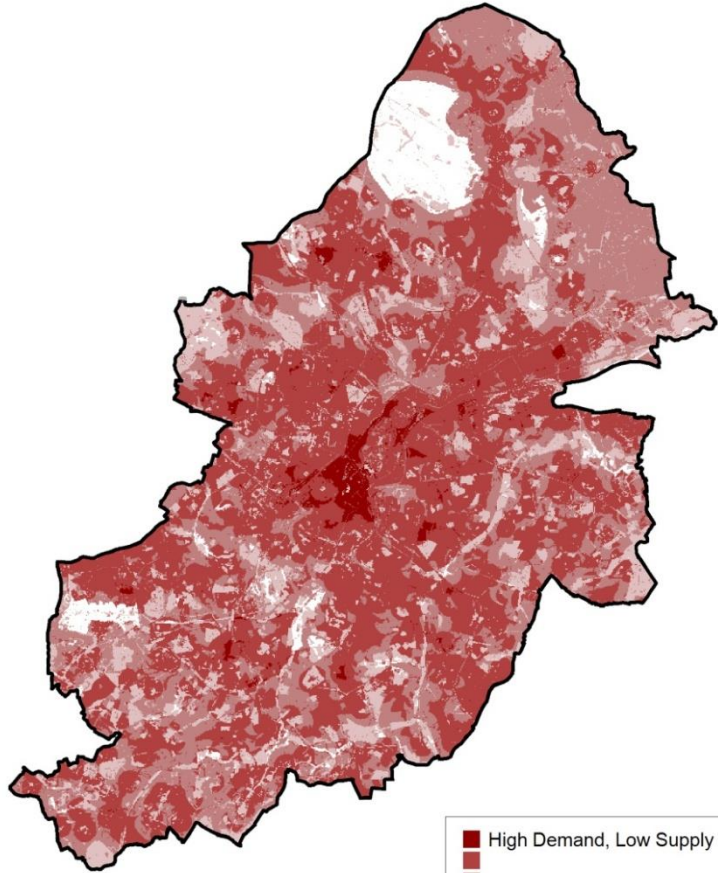
- City as a system of systems
- Natural capital in Planning
- Natural capital in Finance
- Natural capital in Governance
- Natural capital in Service re-design

City of Birmingham Case Study



City of Birmingham Case Study

The Multi-layered Challenge map for Birmingham



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March 2013



- Biodiversity
- Education
- Recreation
- Local Climate
- Flood Risk
- Aesthetic & mobility

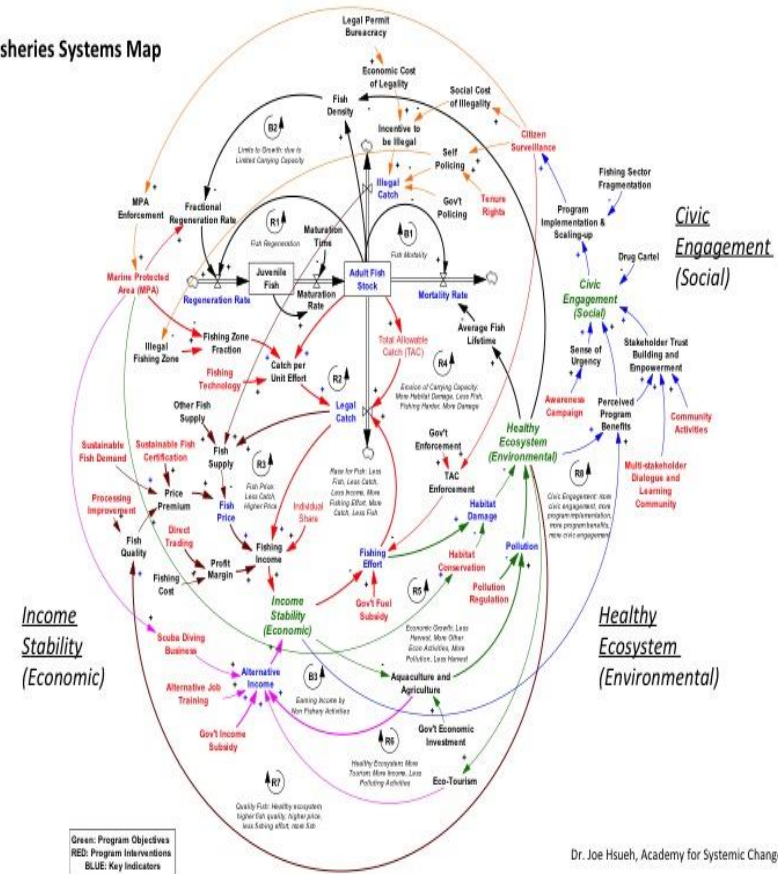
Systems approach-

Who are the main beneficiaries?

Their motives?

A new map of engagement

Fisheries Systems Map



Dr. Joe Hsueh, Academy for Systemic Change

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Development Impact Score

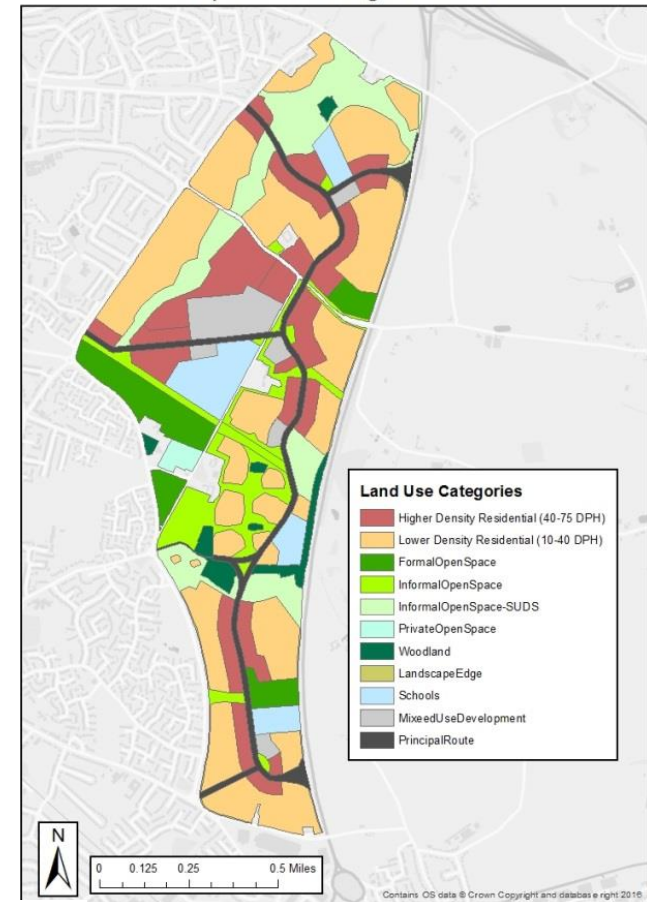
Total for 71.5 Ha of Assessed Land-use Changes

Ecosystem Service	Adjusted Scores	Unadj. Scores
1. Harvested Products	-359.1	-359.1
2. Biodiversity	+55.7	+55.7
3. Aesthetic Values	-7.7	-7.7
4. Recreation	+72.3	+72.3
5. Water Quality Regulation	+1.9	+1.9
6. Flood Risk Regulation	+1.1	-0.7
7. Air Quality Regulation	+22.6	+22.6
8. Local Climate Regulation	-1.6	-1.6
9. Global Climate Regulation	-57.8	-57.8
10. Soil Contamination	+0.0	+0.0
Development Impact Score	-27.3	-27.4

Net Positive for Natural Capital over a 25 year period, 273 ha Circa 6,000 homes

Not demanding more space – But better quality space

Simplified Housing Densities



- Who are the beneficiaries?
- What is the motivation?

ceep
Consultancy for Environmental Economics & Policy



NERC SCIENCE OF THE ENVIRONMENT



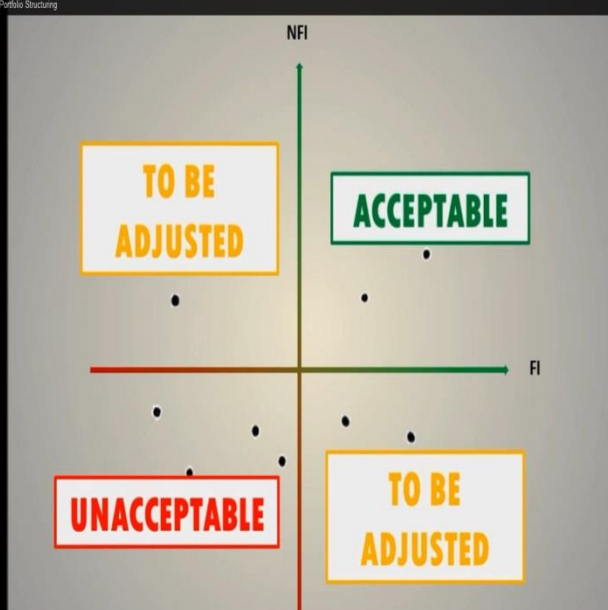
Business Council for Sustainable Development
United Kingdom

City of Birmingham Case Study

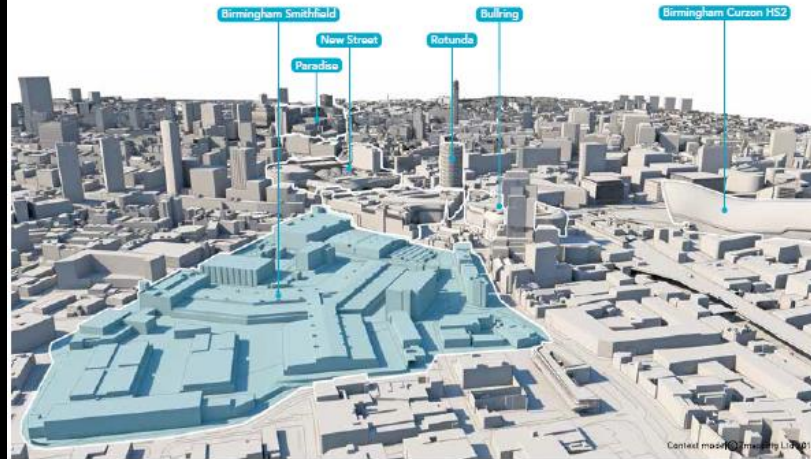
Urban Investment Portfolio-

UCL- Professor Francesca Medda- QASER

Qaser Lab: Urban Investment Portfolio Structuring



Smithfield and High Speed 2



context / birmingham smithfield

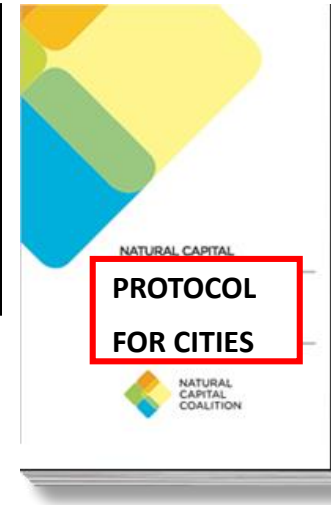
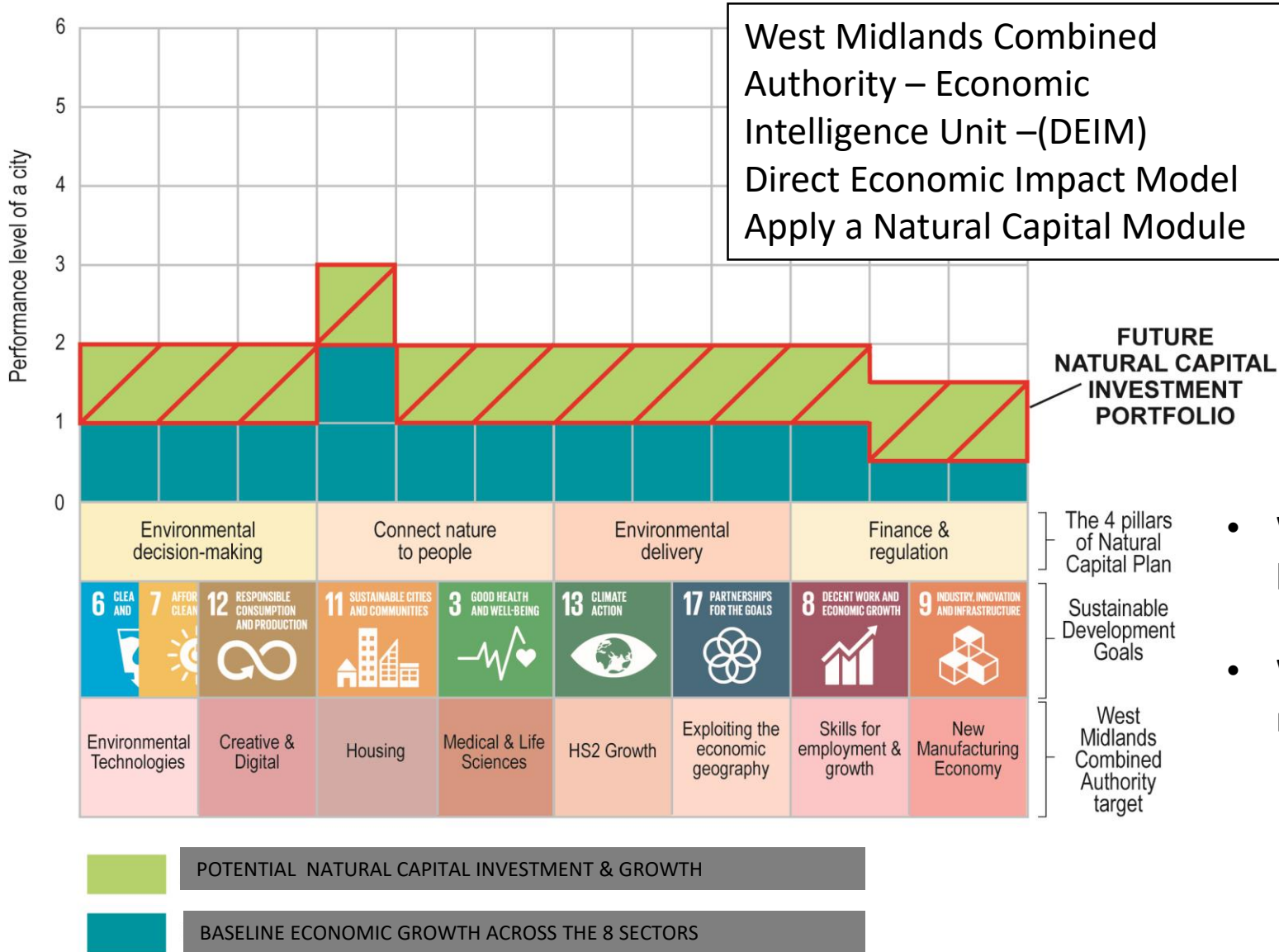
- Who are the beneficiaries?
- What is the motivation?



WBCSD – Business Solutions for a Sustainable World Zero Emissions Cities ZEC

Birmingham Smithfield 1 of 3 global pilots
Led to the introduction of Natural Capital to ZEC Framework

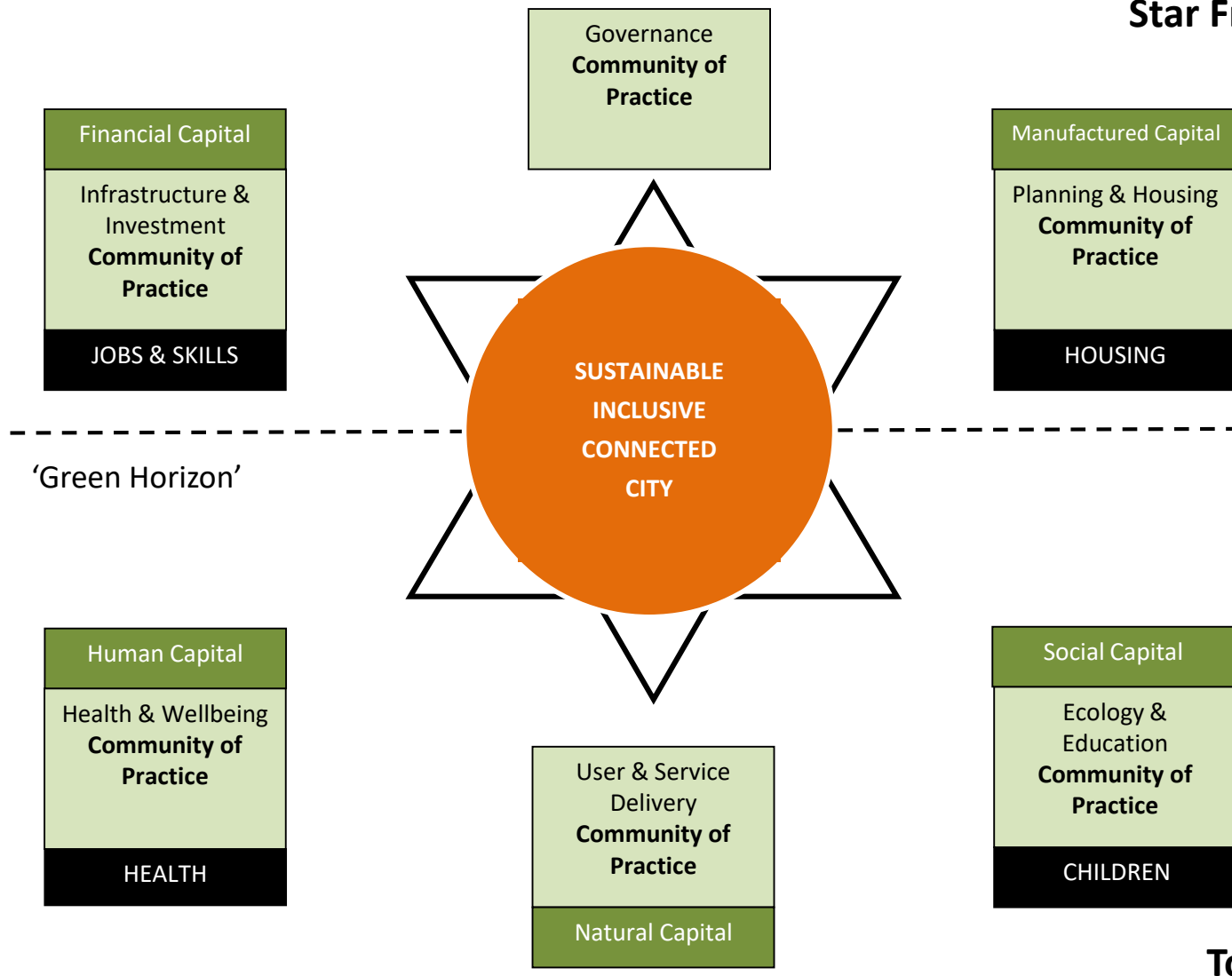
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- Who are the beneficiaries?
- What is the motivation?

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Star Framework

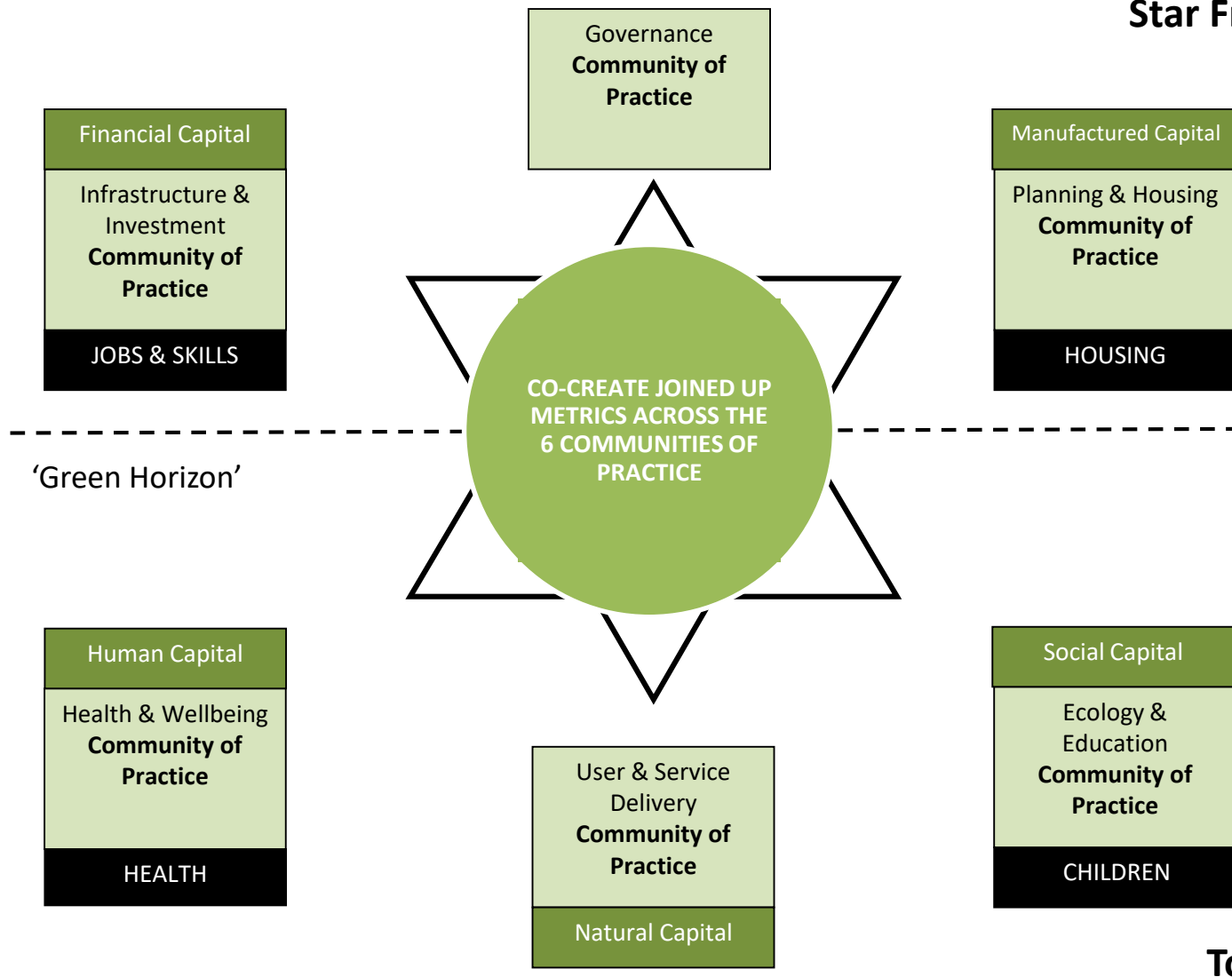


Growth Agenda

Quality of Life Agenda

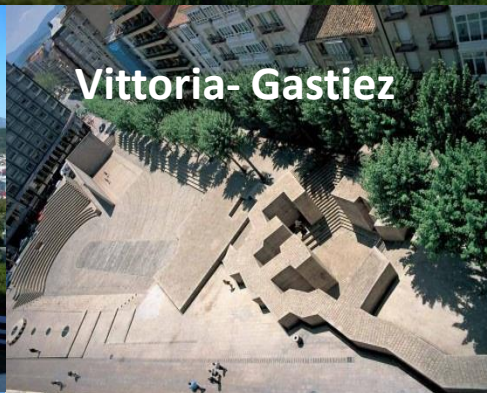
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Star Framework



Birmingham: The UK's First Biophilic City

BiophilicCities - Cities that achieve a deep affinity with nature



City of Birmingham Case Study

Questions & Answers?

Nick Grayson, Climate Change & Sustainability Manager,
nick_grayson@birmingham.gov.uk

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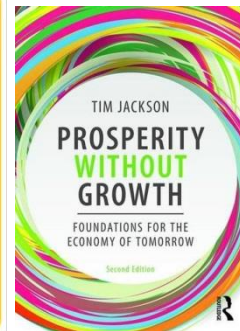
http://www.mckinsey.com/insights/urbanization/urban_world

<http://liveablecities.org.uk/>

<http://biophiliccities.org/>

<http://www.farrellreview.co.uk/>

<http://www.un.org/apps/news/story.asp?NewsID=48773#.VrnAcVLctjo>



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