



## ***Keynote***

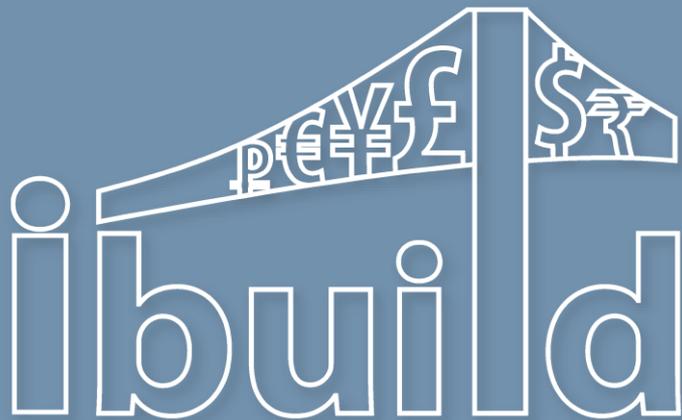
***The Seen University:  
How iBUILD and related projects have built  
academic–governance–industry  
partnerships to understand the value of  
infrastructure***

Phil Purnell, University of Leeds, on behalf iBUILD

Chair: Andy Brown, University of Leeds

# The Seen University

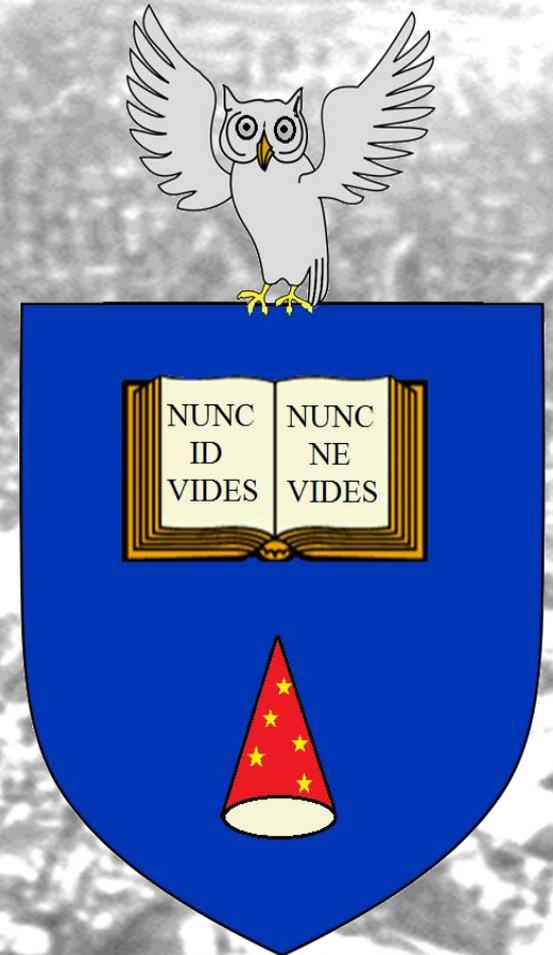
How iBUILD and related projects have built academic – governance  
– industry partnerships to understand the value of infrastructure



*Professor Phil Purnell on behalf of the  
iBuild Management Team.*

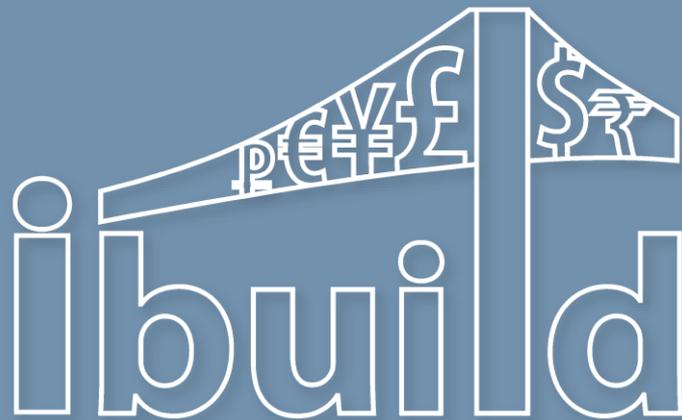
# The Unseen University

- “The relationship between the University and the Patrician, absolute ruler and nearly benevolent dictator of Ankh-Morpork, was a complex and subtle one.
- “The wizards held that, as servants of a higher truth, they were not subject to the mundane laws of the city.
- “The Patrician said that, indeed, this was the case, but they would bloody well pay their taxes like everyone else... It was two hundred dollars per capita; if per capita was a problem, decapita could be arranged.” – *Reaper Man*



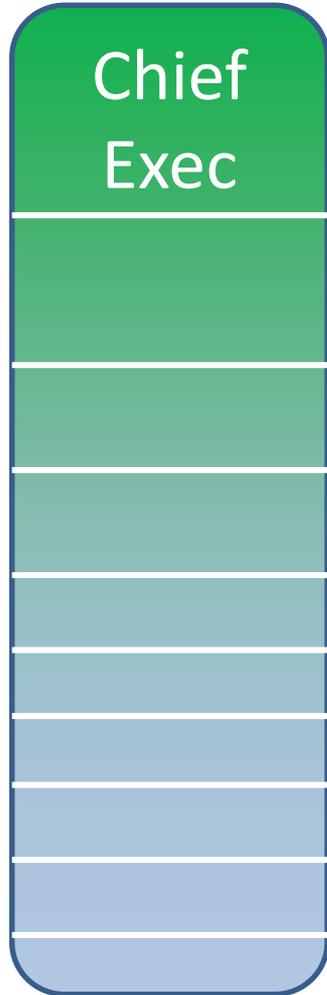
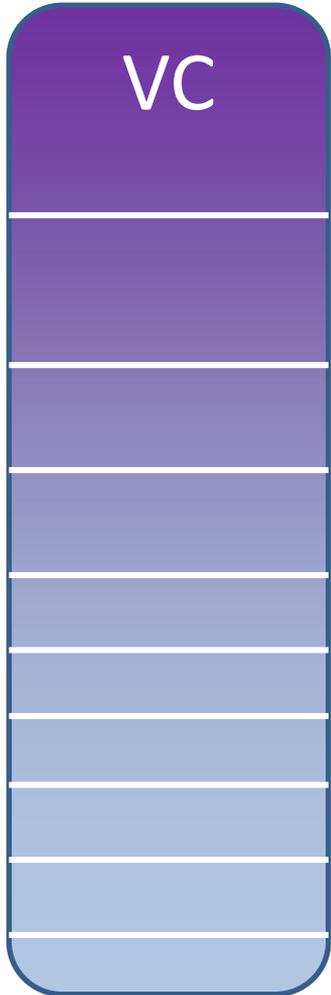
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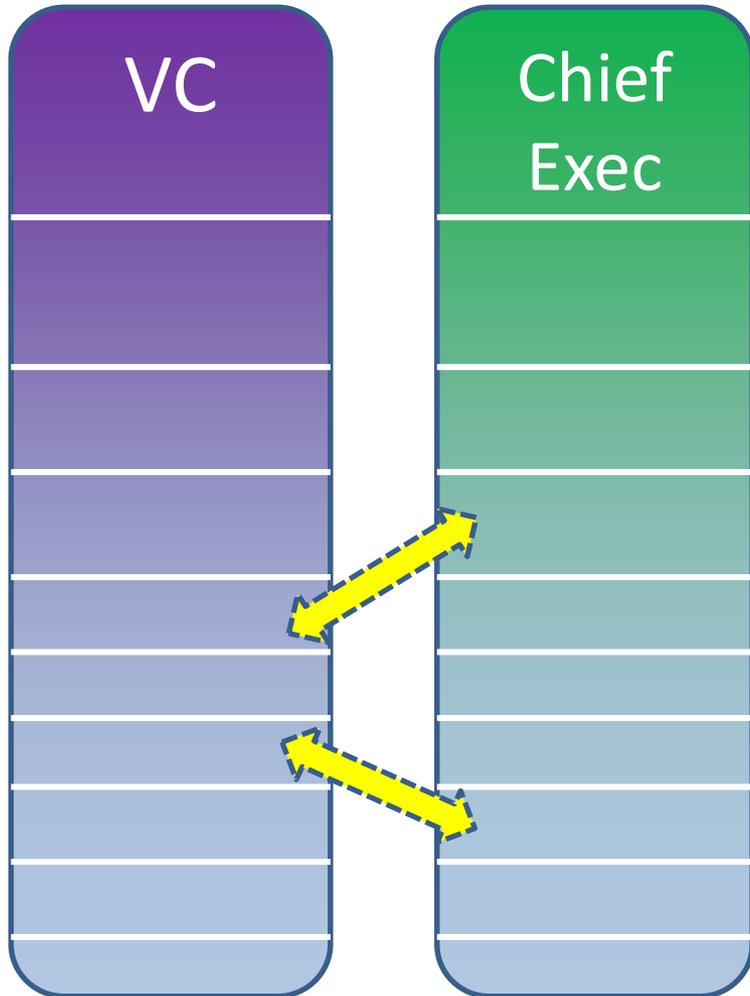


*Phil Purnell*  
*Professor for the Public*  
*Misunderstanding of Infrastructure*  
*on behalf of the iBuild Management*  
*Team.*

# The Old Relationship

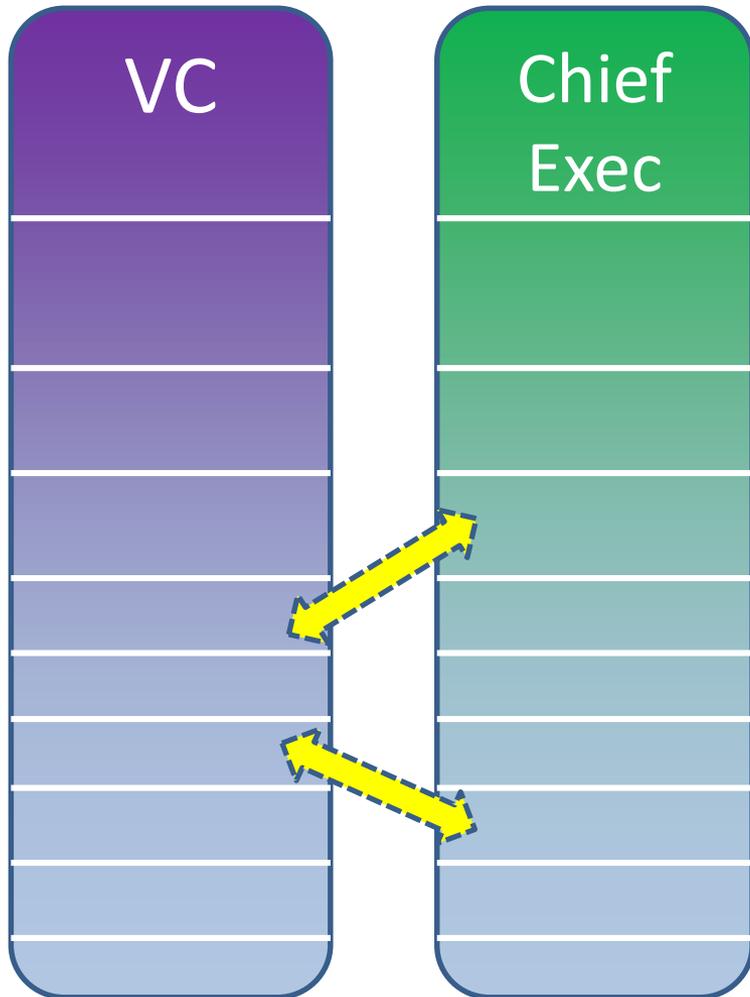


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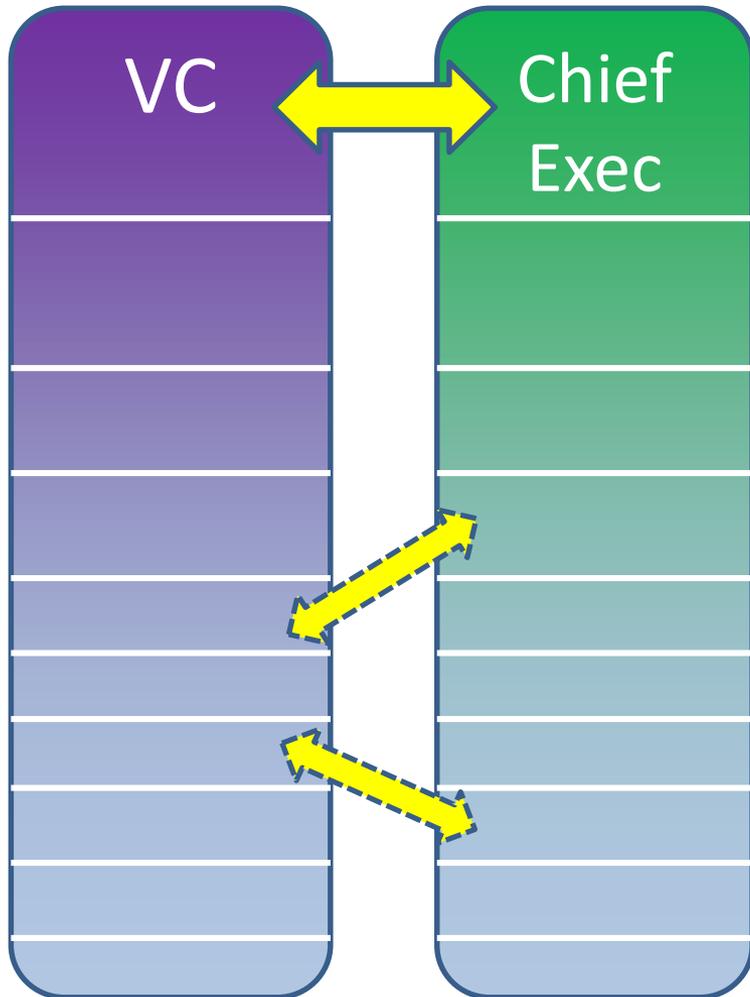


# The Old Relationship

- Ad-hoc interactions, informal personal relationships

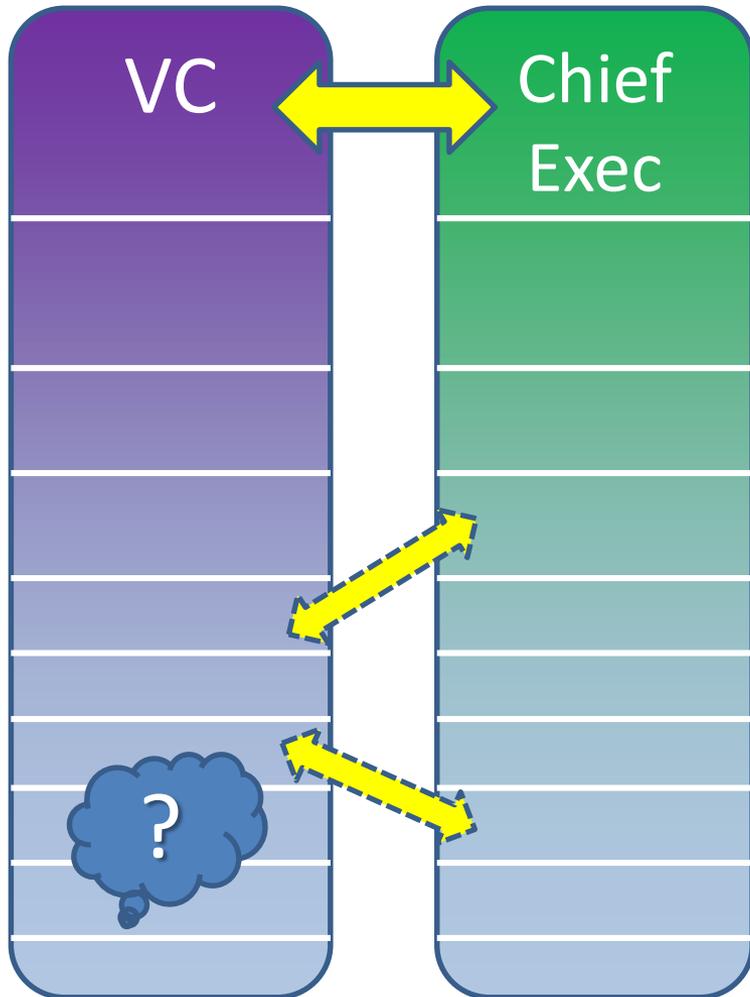


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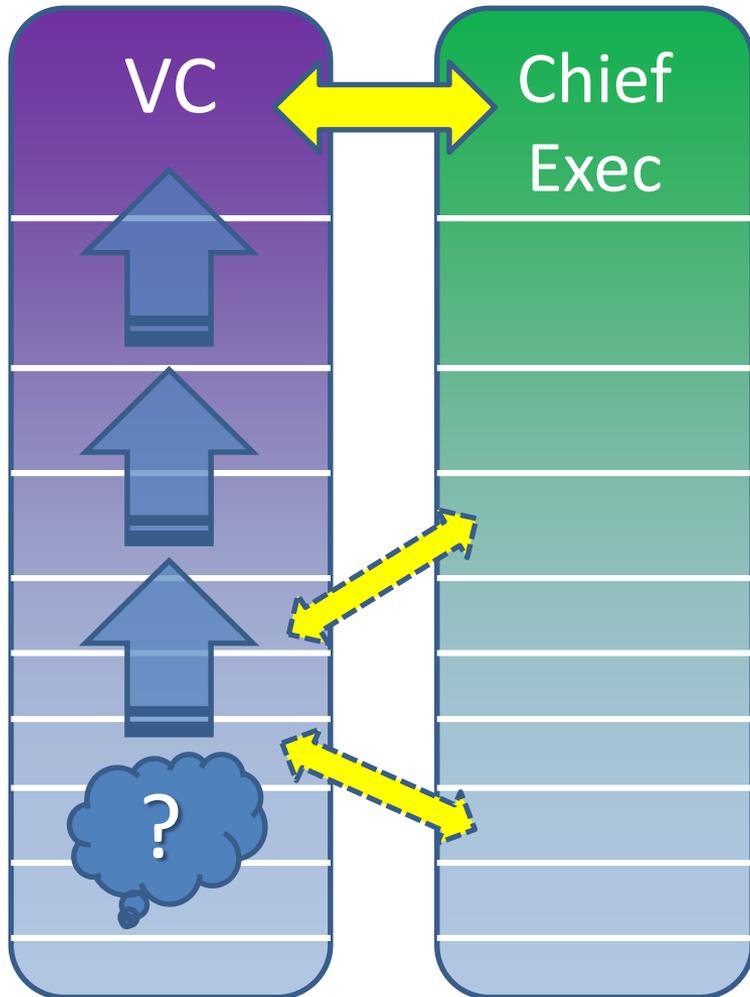
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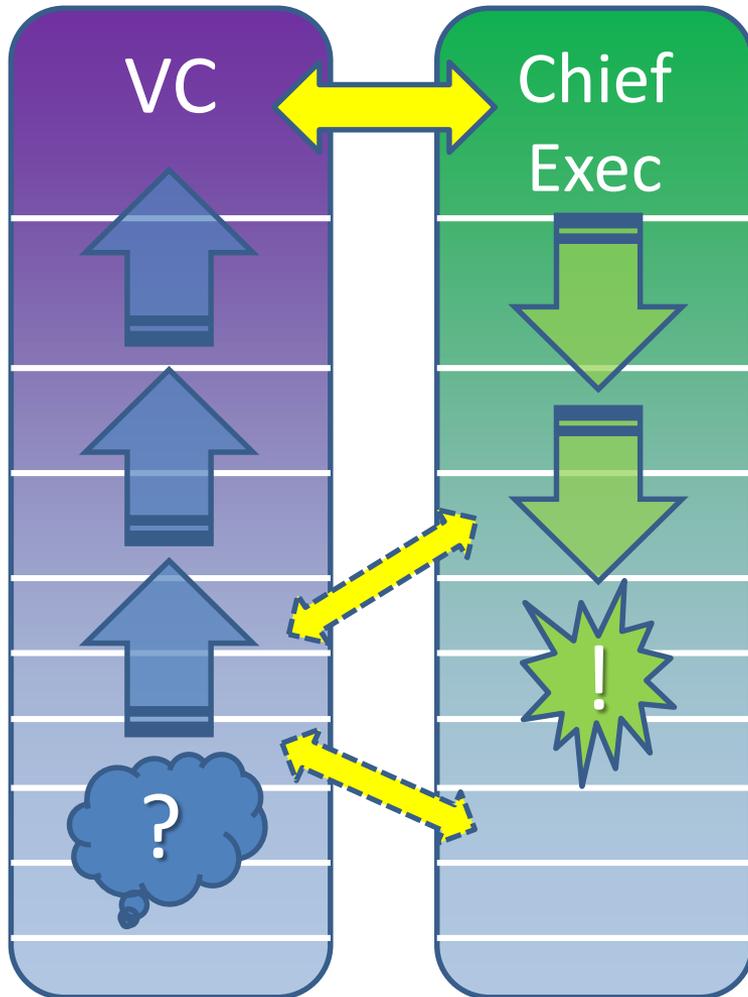
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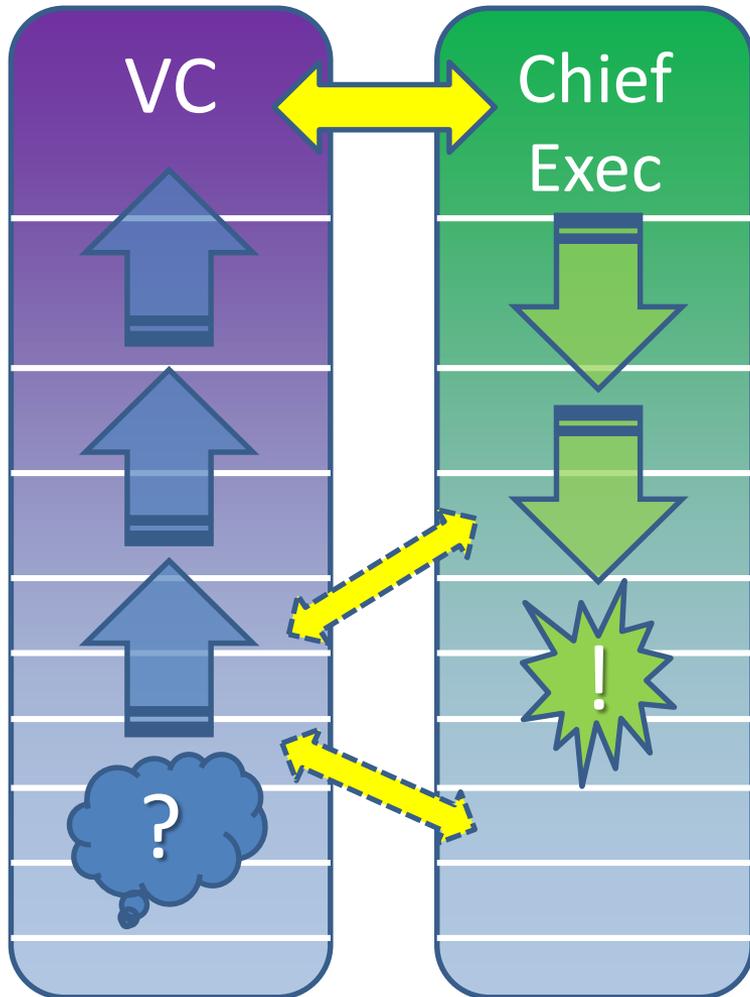
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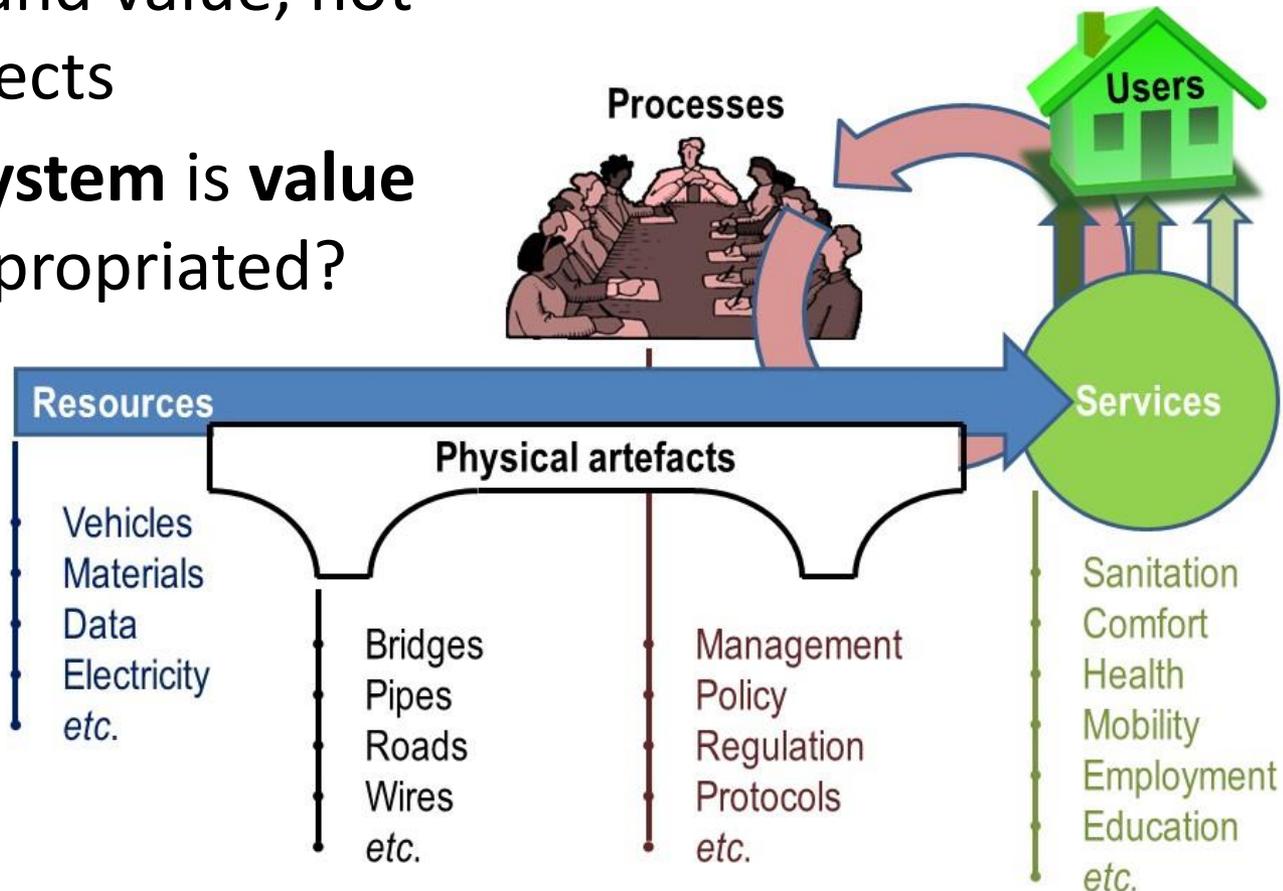
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- **iBUILD and related projects changing the game.**

# iBUILD – value of infrastructure

- Broad, integrated appreciation of infrastructure
- Think services and value, not assets and projects
- Where in the **system** is **value** created and appropriated?

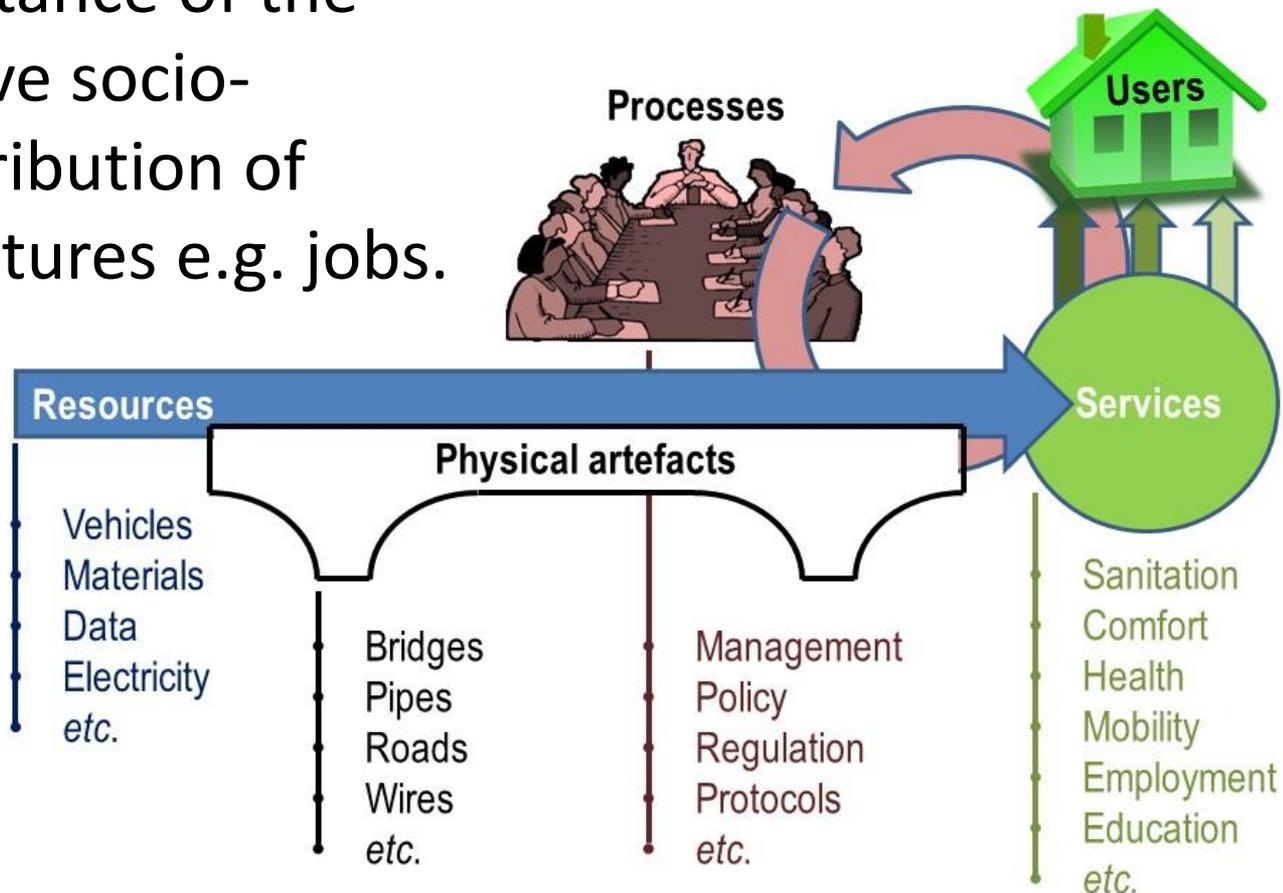
## Multidimensional Value

- *Economic (+/-)*
- *Social (+/-)*
- *Technical (+/-)*
- *Financial (+/-)*
- *Environmental (+/-)*
- *Political (+/-)*



# iBUILD – value of infrastructure

- **Value** over life-cycle: service is immortal...
- National importance of the **local**: cumulative socio-economic contribution of small infrastructures e.g. jobs.



## Multidimensional Value

- *Economic (+/-)*
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- *Environmental (+/-)*
- *Political (+/-)*

# Infrastructure business models

## Value creation

- Revolving loan fund
- Ad revenue
- User charge
- Public subsidy
- Time banking
- ...

## Organisational structure

- PPP
- Public
- Private
- Community
- 3<sup>rd</sup> Sector
- Trusts
- Mutual
- ...

## Funding

- Taxation
- National debt
- Municipal bonds
- TIF
- SPV
- ESCo
- ...

## Financing

- User charges
- Taxation
- Pay-as-you-save
- Performance based
- Land value capture
- ...

- Typology: 100+ case studies:  
<http://ceg-research.ncl.ac.uk/ibuilddemo/>

- **Financialisation of infrastructure & City Deals**
  - Different manifestations and impacts in different geographical contexts
  - Role of the state reinforced rather than reduced: wider and deeper relationship with private sector
  - City Deals do not represent radical devolution: strict HMG rules on e.g. TIF
- **Economic evaluation of systems of infrastructure provision**
  - Moving beyond CBA
  - economics of infrastructure, transport resilience, passive provision for energy investments and critical materials
  - used to inform HMG Treasury's update of *Valuing Infrastructure Spend*

# Projects feeding in...

How finance can better serve economic, social and environmental needs

Using complexity science to enable effective heat demand decision-making

**Heat Networks**

**FESSUD**

Critical materials for low-carbon infrastructure

**UI**

Risk of infrastructure failure & long term benefits of investments to improve infrastructure systems.

**ITRC - Mistral**

**iBUILD**

**MUSCOs**

Radical changes to utility supply contracts

Sister project to iBUILD – international focus

**ICIF**

**Livable Cities**

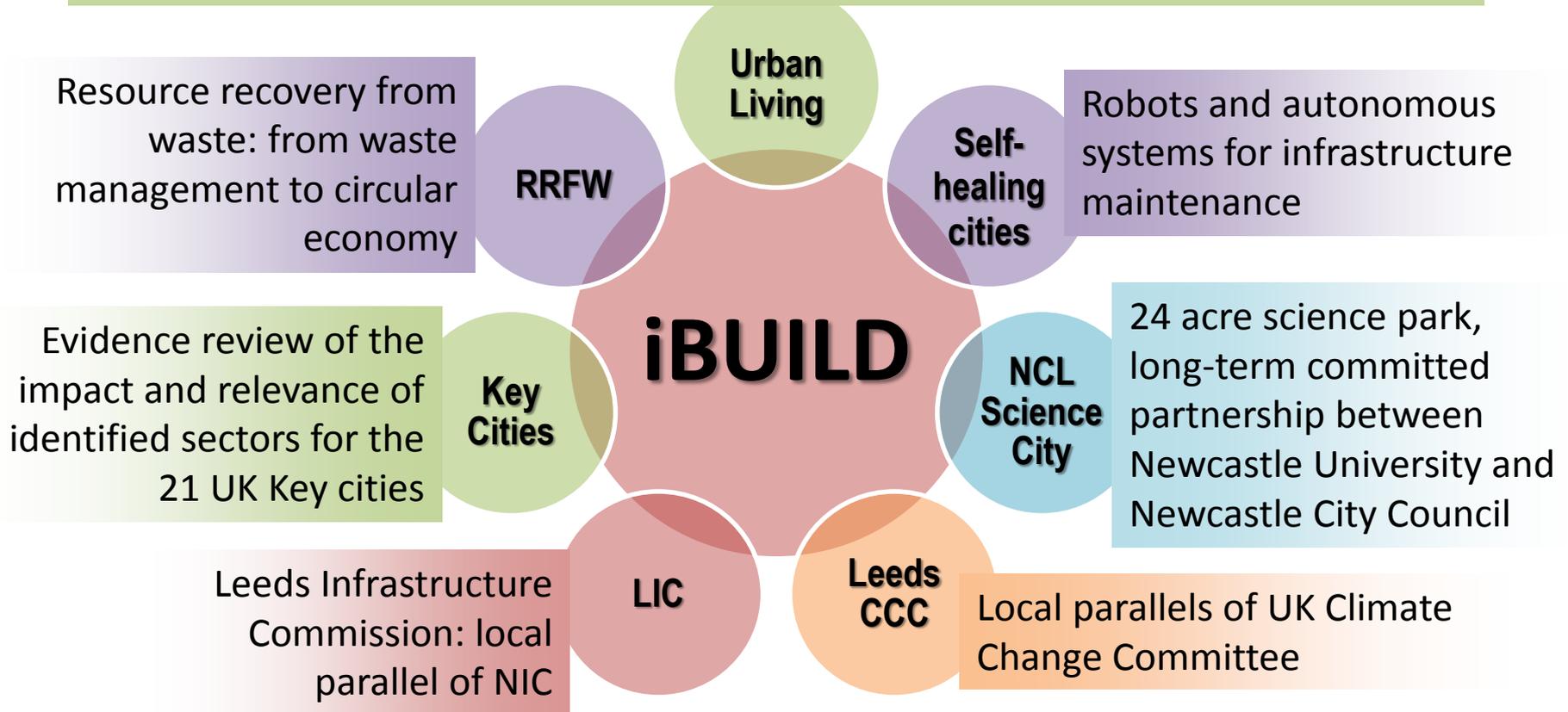
**Mini Stern**

How to economically decarbonise city regions

Integrating wellbeing indicators into evidence base for radical engineering of cities

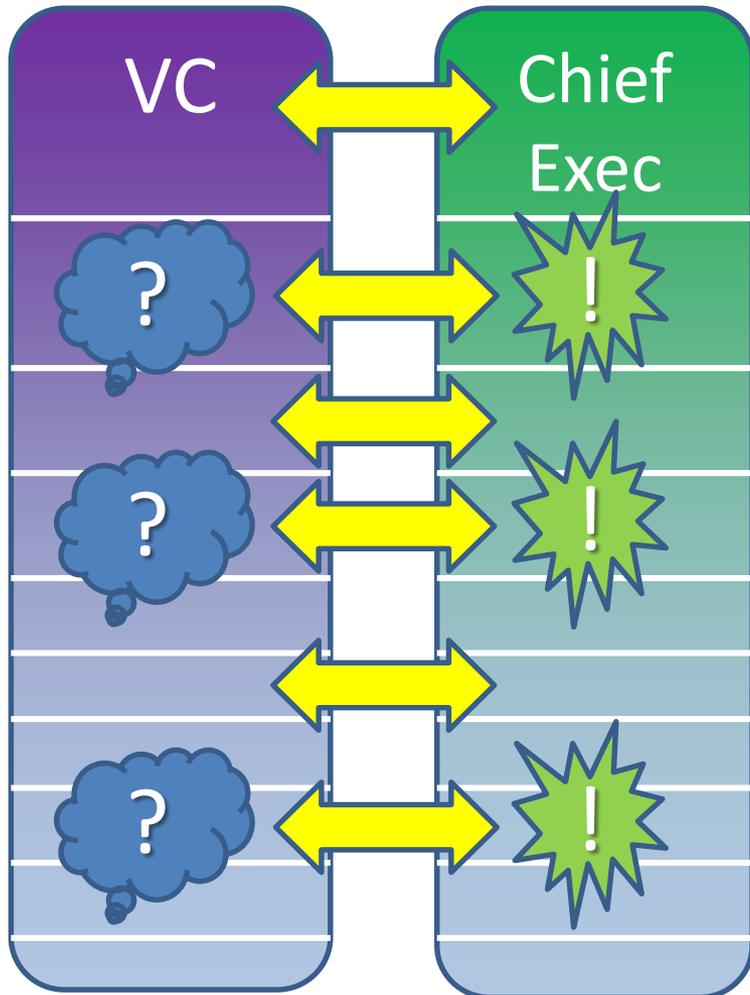
# ...and new projects

5 projects co-created by Citizens, Uni's, LA's, Biz & 3<sup>rd</sup> Sector: rewriting the the evolution of city living (Leeds, Newcastle, B'ham, UCL, York)



***All spanning multiple disciplines, sectors and organisations***

# New relationship



- From ad-hoc to strategic
- Project focussed, not ceremonial
  - Co-creation
  - Secondments
  - Commissioning strategic research
  - Place-based

# Catalysis: aligned incentives

## University

- The Impact agenda: demonstrating the social benefit of our research

## LA's

- Neutral, credible analysis
- Academic kudos
  - Omni-disciplinary: one stop shop



£\$  
€¥

*Access to strategic R&D funding  
unavailable to either partner individually*

# Moving forward

- Building coalitions with capital
  - Matching funders and sustainable business models to the medium- and long-term interests of LA's and their stakeholders
- Accounting for all dimensions of value
  - Understand who can create each type of value (social, economic, financial, environmental...)
  - Regulation as 'value conversion'
  - Preserve, reinvest and recycle value locally
- Soft infrastructure

# The Manifesto

## Are you being served?

Alternative infrastructure business models to improve  
economic growth and well-being



1. Have a broader, integrated appreciation of infrastructure
2. Enable action at the local scale that connects with the national
3. Capture long-term value of every kind
4. Deliver more efficient planning, procurement and delivery
5. **Accelerate the uptake of innovations through practical action and demonstration**

# Co-Creation Events & Outputs

- July – workshop for local authorities on funding and finance
- *A Manual for Infrastructure Business Models*  
– *Manifesto the Sequel*
- Final iBUILD event February 2018
- More local and national events to be announced for iBUILD and related projects
- **Keep in touch.**