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Infrastructure Business models, valuation and Innovation for Local Delivery

Richard Dawson

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**UNIVERSITY OF
BIRMINGHAM**



**Newcastle
University**



UNIVERSITY OF LEEDS

09.30 *Registration and Coffee*

10.00 The iBUILD approach
Richard Dawson (Newcastle University)

10.30 Breakout Session 1: 'Practitioner Burning Issues'

11.10 Energising Local Activity to Make Connections
Barry Forde (Broadband for Rural North)

11.30 Local Government perspective
Ian Jenkinson (Institution Civil Engineers, Municipal Expert Panel)

11.50 *Refreshments and priority issue voting*

12.20 Breakout Session 2: Parallel workshop sessions on 'Interdependencies';
'Value'; and 'Scale'.

Agenda - afternoon

13.00 Lunch

13.45 Infrastructure Business Models: Examples and Insights from Australia, Phillip O'Neill (University of Western Sydney)

14.10 Infrastructure Business Models: Examples and Insights from Chicago, Tom Theis (University of Illinois)

14.35 Plenary Discussion: Case Studies and Mechanisms for Interaction and Engagement

15.00 Refreshments

15.15 The Policy Context, David Penhallurick (Infrastructure UK)

15.30 The Funders' Context, Chris White (EPSRC)

15.40 Plenary Discussion and Feedback from Breakout Session 2
Summary of the Day, Richard Dawson (Newcastle University)

16.00 Close

National Importance of the local

“For too long, central government has hoarded and concentrated power. It leaves no room for adaptation to reflect local circumstances or innovation to deliver services more effectively and at lower cost.”



HM TREASURY

Greg Clark MP, Financial Secretary to the Treasury



Heseltine review for BIS & Treasury:

“Huge infrastructure demands and hungry institutional funds - link them.

Excellence in industry, commerce, academia – extend it.

England’s cities pulsing with energy – unleash it.”

Smart Growth America

Better Choices For Our Communities

“Job multipliers for local infrastructure investment are often much higher [than national capital expenditure]”

Review into Obama Stimulus programme



Unlocking Growth through partnership

“Central government is missing growth opportunities through an overly centralised and prescriptive mindset. Our work has highlighted that councils and developers can lead the way...”

28 NEW CIVIL ENGINEER 18.10.12 | www.nce

ICE NEWS



Viewpoint

John Laverty



Let’s hear it for infrastructure

Why local schemes are key to the economy

Infrastructure

- Ageing assets
- Changing demands
- Climate change
- New technologies
- Increased interdependence



Localism

Localism Act 2011

- Localism Act 2011
- Green Deal: Local low-carbon action
- Local Enterprise Partnerships
- City Deals
- Growth & Infrastructure Bill



New business
– hurriedly

models will emerge
or well designed

***iBUILD** aims to fill current
vacuum in our knowledge*



WS1: The business of interdependence



WS2: Re-thinking infrastructure value



WS3: Issues of scale in local delivery



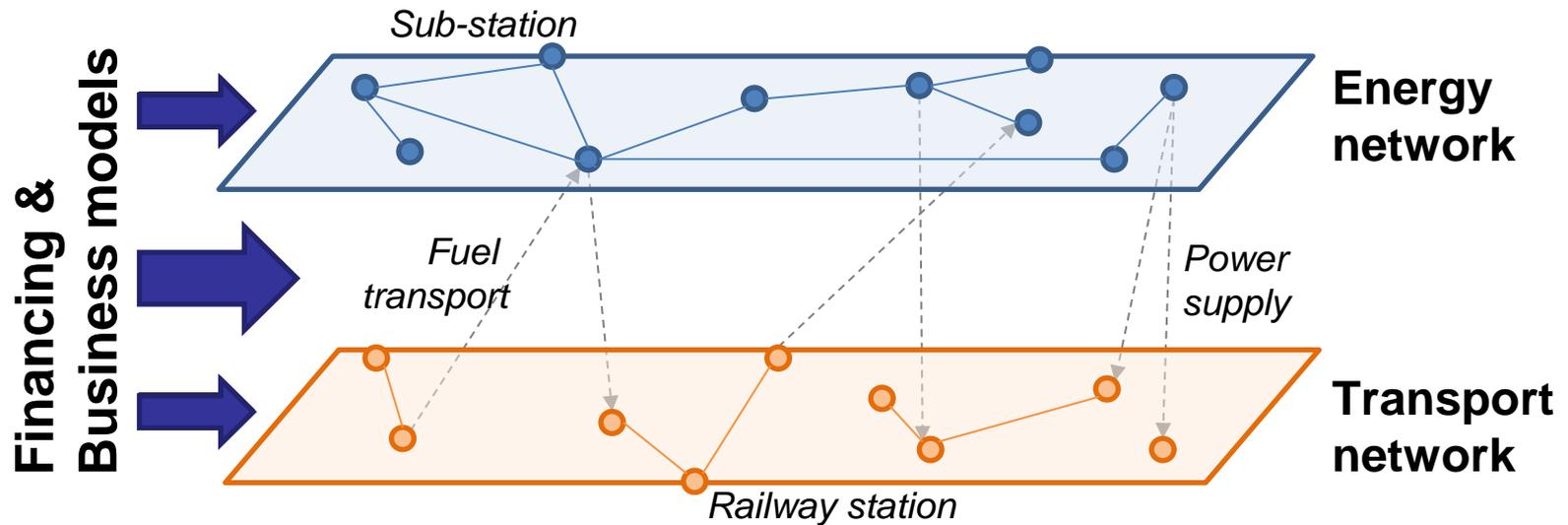
WS4: Integrative case studies



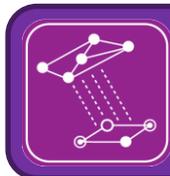
WS5: Co-creation
phases



WS1: The business of interdependence



- **Identify interdependencies – and related opportunities in ‘system of systems’**
e.g. co-location; multi-function; co-ordinated operation *etc.*
- **Propose and test new business models**
- **Appropriate governance and regulatory arrangements**



WS1: The business of interdependence



Public trust that supplies:

- natural gas,
 - water,
 - wastewater treatment,
 - heating and cooling
- to Indianapolis, Indiana and surrounding communities.



Local co-operative of 250 organisations
Facilitates new business & entrepreneurship



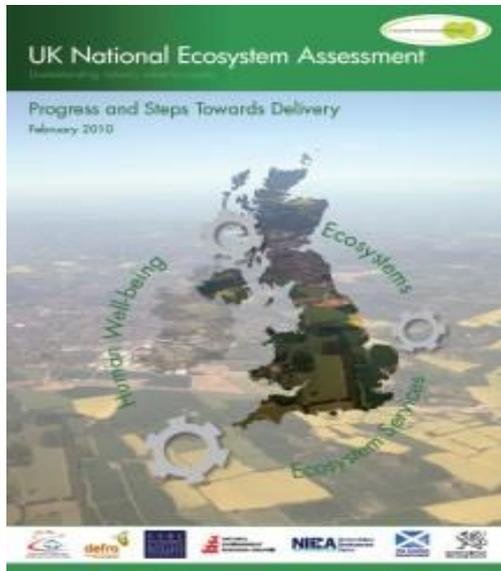
Vancouver City Credit Union:
Deposits invested in local projects.



The screenshot shows the BBC News Europe website interface. At the top, there is a navigation bar with 'BBC' on the left and 'News', 'Sport', 'Weather', and 'iPlayer' on the right. Below this is a large red banner with 'NEWS EUROPE' in white text. Underneath the banner is a secondary navigation bar with links for 'Home', 'World', 'UK', 'England', 'N. Ireland', 'Scotland', 'Wales', 'Business', 'Politics', 'Health', and 'Education'. A third navigation bar below that lists regional categories: 'Africa', 'Asia', 'Europe', 'Latin America', 'Middle East', and 'US & Canada'. The main content area displays the date '14 August 2012' and 'Last updated at 01:02' on the left, and social media sharing icons for 'Share', 'Facebook', and 'Twitter' on the right. The headline of the article is 'Basque co-operative Mondragon defies Spain slump', followed by the author 'By Tom Burridge' and the location 'BBC News, Arrasate, Spain'.



- **Underinvestment springs from undervaluation**
 - More efficient use of assets and materials
 - Whole system economic value (e.g. Systems of provision)
 - Social & environmental accounting



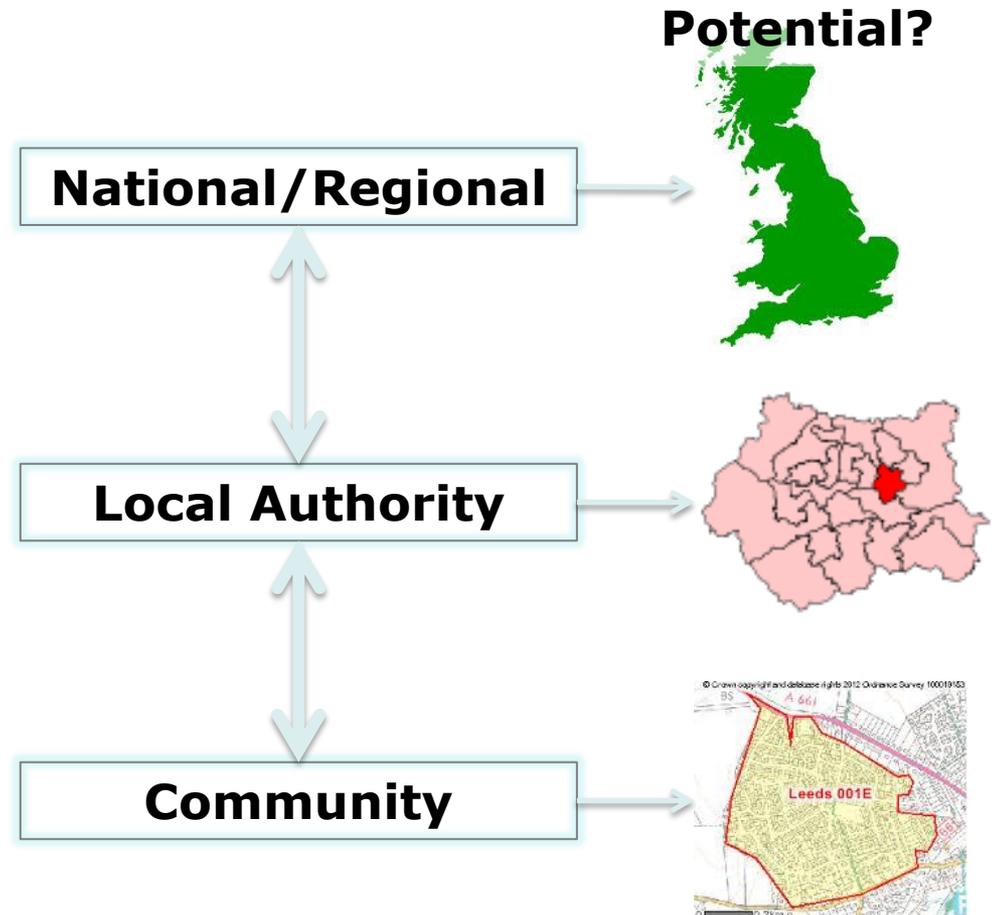


Broadband for Rural North: www.b4rn.org.uk





- Scalability of infrastructure business models
- Supply chain costs & regulation
- Infrastructure finance mechanisms





WS3: Issues of scale in local delivery

Local I-S ↔ Regional I-S ↔ National I-S

Financing

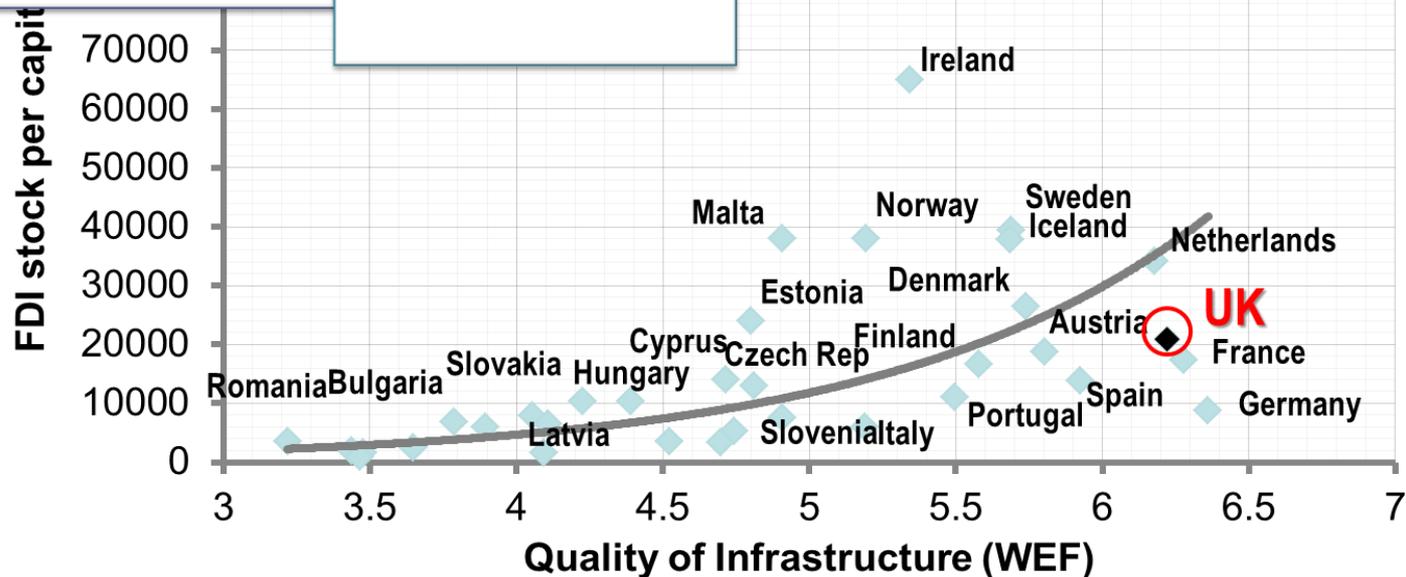
Review mechanisms from micro-finance to FDI: assess appropriateness to scale & range of I-S investment issues

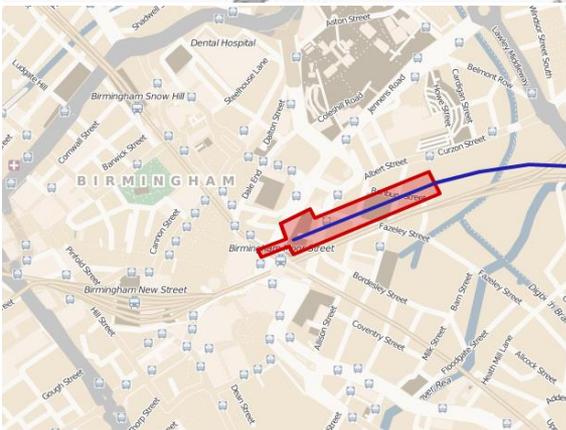
Value creation

Factors influencing the effectiveness of UK infrastructure in generating growth, competitiveness & value

Value appropriation

Factors and conditions that determine who benefits, and how?





- Bench-test new approaches
- Compare across cities/sectors
- Integrate across WS1-3
- Co-created with our extensive team of partners

E.g. High speed rail in Spain

“...has helped to boost the phenomenal growth rates in Madrid but has left many of the regions, whose economic prospects rail-links were supposed to increase, struggling to catch-up.”

Source: A Rodríguez-Pose and U Fratesi Between development and social policies: the impact of European Structural Funds in Objective 1 regions, *Regional Studies*, 38 (1): 97-113



Review of 28 'city deals'

“Today Birmingham signs a deal to hand chunks of power over from Whitehall control...

top priority to rebalance our economy so that Birmingham and other major cities get a fair crack of the whip.

... 10,000 jobs will be created by making Birmingham the City of Life Sciences and expanding the Green Deal scheme to make homes more environmentally friendly.

Birmingham will be free of the ties that once bound you to decisions made by politicians in Whitehall”

(Nick Clegg, Deputy Prime Minister, 18 September 2012)

UNCLASSIFIED



Press Notice

PN 84/12 – Birmingham

18/09/12

Government formalises Greater Birmingham and Solihull city deal

The Government's plans to transform the powers and levers available to local leaders to deliver growth and jobs in their communities were confirmed today with the signature of agreements between the Deputy Prime Minister, Rt Hon Nick Clegg MP, the Financial Secretary to the Treasury, Rt Hon Greg Clark MP, and the leaders of Greater Birmingham and Solihull.

The deal will lead to 10,000 additional new jobs for local people through investment in the life sciences sector and expansion of the Green Deal programme in addition to the creation of up to 3,560 apprenticeships.

The Deputy Prime Minister, Nick Clegg, said:

“Today Birmingham signs a deal to hand chunks of power over from Whitehall control - a dramatic power shift that will mean everyone in Birmingham will feel the benefits.

“It is my top priority to rebalance our economy so that Birmingham and other major cities get a fair crack of the whip.

“The deal Birmingham has struck will set the city free to be innovative and unique. 10,000 jobs will be created by making Birmingham the City of Life Sciences and expanding the Green Deal scheme to make homes more environmentally friendly.

“Birmingham will be free of the ties that once bound you to decisions made by politicians in Whitehall.”

Greg Clark said:

UNCLASSIFIED



Water sensitive urban design on Northumberland Street, Newcastle upon Tyne



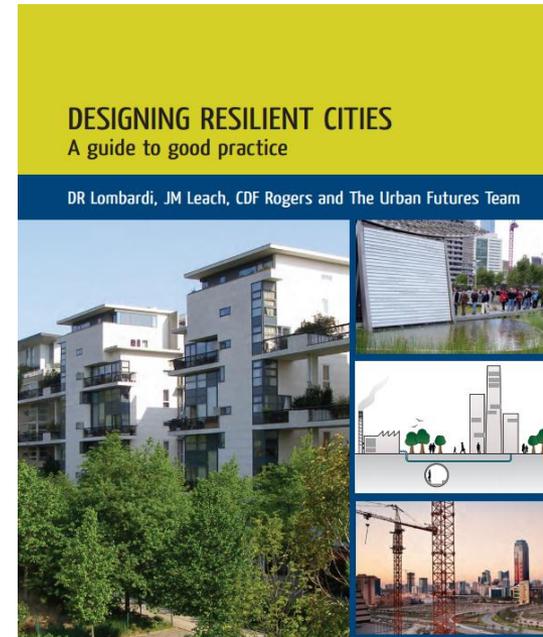


Water sensitive urban design on Northumberland Street, Newcastle upon Tyne





- **Interdisciplinary learning**
 - EPS & ES teams at each university
 - Joint events with partners
- **Partnership**
 - Co-creation of case studies
 - Testing of methods and approaches
- **Decision Theatre**
 - Visualising research outputs
 - Multi-sector collaborative environment
 - Supports public engagement



Summary

- i-BUILD is applying systems approaches to develop a portfolio of business models – suited to different decisions and intended outcomes
- Aim to change Benefit – Cost proposition by
 - Identifying and exploiting technical, social and market opportunities that emerge from interdependence
 - Capturing social, environmental and full economic value of infrastructure services
 - Reconciling national (e.g. regulation) and broader (e.g. climate) drivers with local infrastructure decisions
- Focus at the scale of neighbourhoods, towns and cities where:
 - Opens up new options for funding and ‘ownership’
 - Infrastructure is most dense and interdependencies most profound
 - Devolution of spending and powers to cities, local authorities, LEPS
 - And there is a recognised need to:
unleash potential of local economies to the benefit of the UK economy
[Heseltine review: No Stone Unturned - In Pursuit of Growth]
- Aspire to influence and change policy and practise by working in collaboration the range of local and national partners interested in infrastructure delivery – many represented here today



UNIVERSITY OF
BIRMINGHAM



UNIVERSITY OF LEEDS

Director:
Richard Dawson



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Andrew Brown

Co-Investigators



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Miles Tight



Ian Jefferson



Sean Wilkinson



Guy Garrod



Phil Blythe



Denise Bower



David Spencer



Naomi Brookes



Tim Foxon



Chris Baker



Nicole Metje



Jon Coaffee (now Warwick)



Dave Campbell



Neil Thorpe



Jane Gibbon



John Tomaney (now UCL)



Mario Kafouros



Andy Gouldson



Julia Steinberger

Breakout Session 1: 'Practitioner Burning Issues'

- **Yellow dots – Member's lounge (here)**
- **Chair: Chris Rogers**

- **Green dots – Executive Box 2 (Floor 3)**
- **Chair: Julia Steinberger**

- **Blue dots – Executive Box 3 (Floor 3)**
- **Chair: Oliver Heidrich**

Discuss 'burning issues' related to infrastructure business models, the iBUILD research, approach *etc.*

Each group has a chair and rapporteurs who will prepare a list of issues.

During the first break you can use the dots on the back of your badge to vote on those you consider to be most important

Breakout Session 2: Interdependencies, Value, Scale

- **Yellow dots – Member's lounge (here)**
- **Chair: Richard Dawson**

- **Green dots – Executive Box 2 (Floor 3)**
- **Chair: Stephanie Glendinning**

- **Blue dots – Executive Box 3 (Floor 3)**
- **Chair: Phil Purnell**

- **What are the key dimensions and issues related to interdependencies/value/scale?**
- **Identify examples of good/best/different practice.**
- **How do the example relate to different/new business models?**

Each group has a chair and rapporteurs who will prepare a summary.

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