Digital Built Britain

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CitA BIM GATHERING

David Philp

Digital Built Britain (DBB)

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OVERVIEW: DIGITAL BUILT BRITAIN

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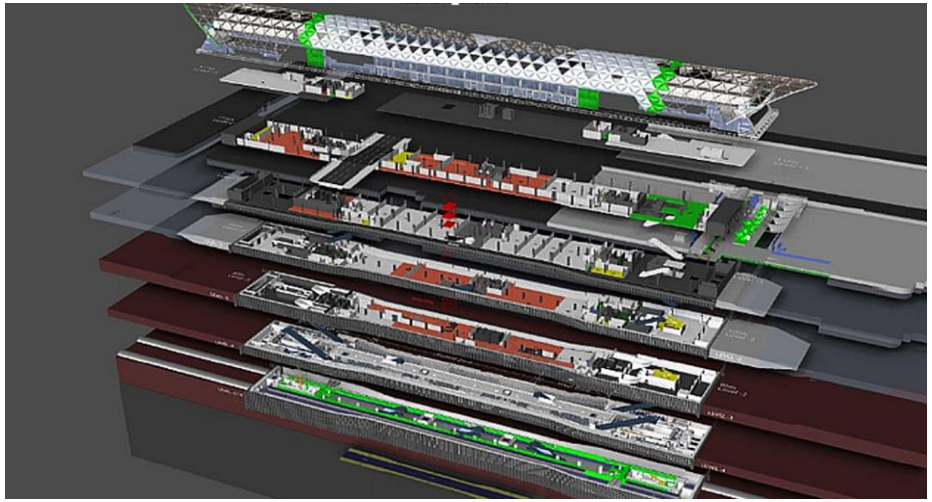
Welcome to "Digital Built Britain"

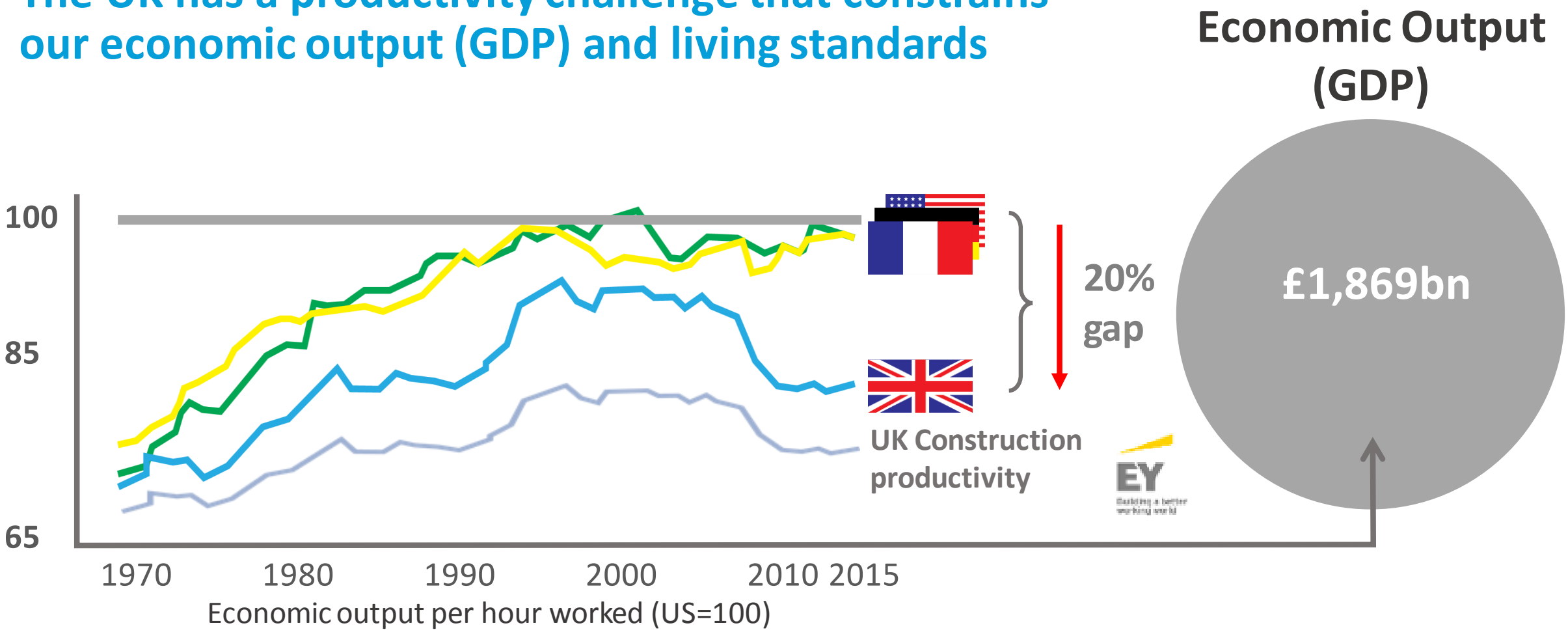
Digital technology is changing the way we plan, build, maintain and use our social and economic infrastructure.

Building Information Modelling (BIM) is already transforming the UK construction industry.

Over the next decade this technology will combine with the internet of things (providing sensors and other information), advanced data analytics and the digital economy to enable us to plan new infrastructure more effectively, build it at lower cost and operate and maintain it more efficiently. Above all, it will enable citizens to make better use of the infrastructure we already have. This is **Digital Built Britain (DBB).**



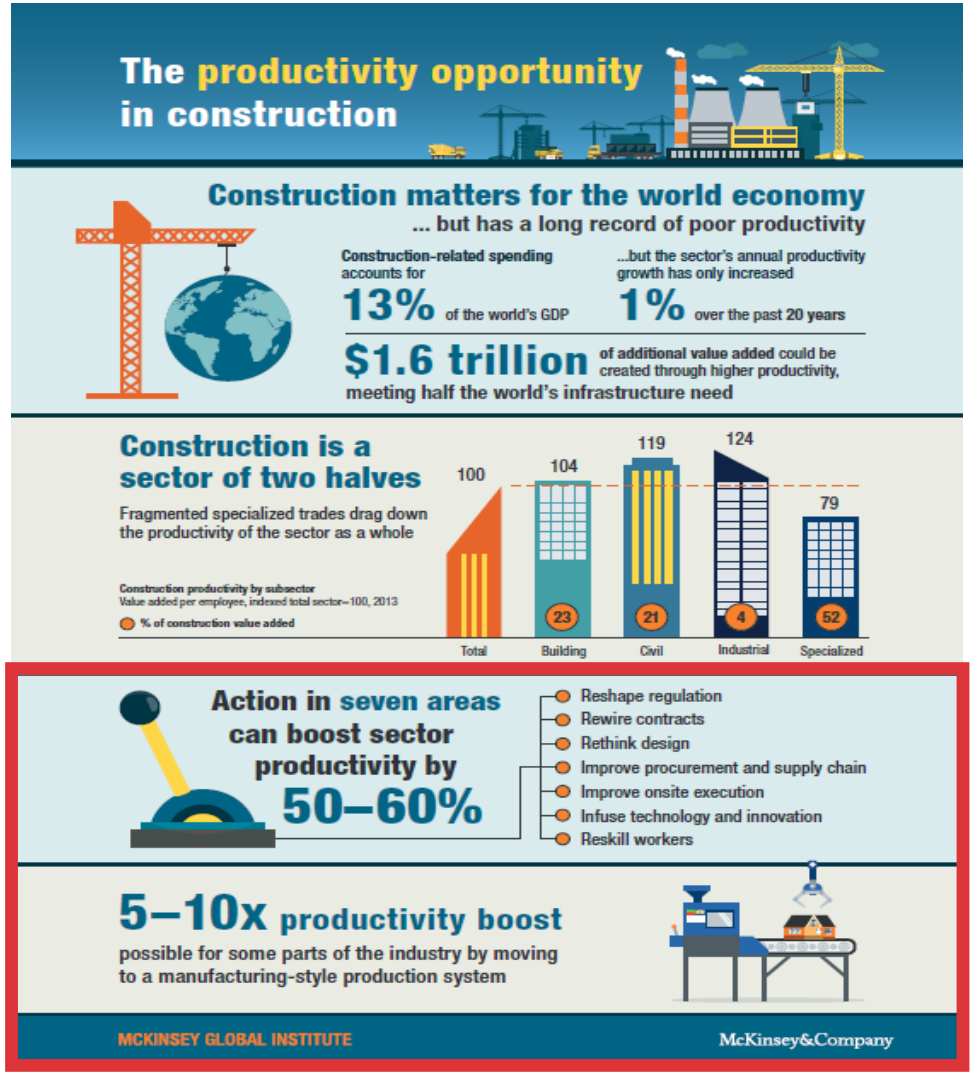
The UK has a productivity challenge that constrains our economic output (GDP) and living standards



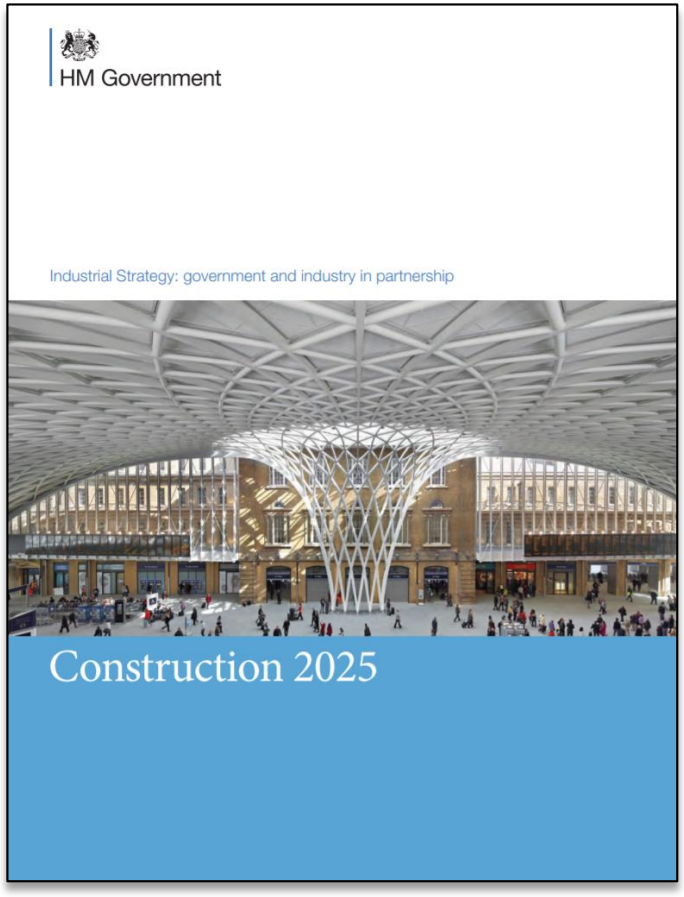
The vision for "Digital Built Britain"

is to provide a seamless transition from the achievements of Level 2 Building BIM and the Construction Strategy into an environment where technology as a system is second nature.

This will enable a thriving UK Digital Economy for the Built Environment to encourage growth and competitiveness and facilitate dramatically better use of current and future infrastructure assets.



Supporting Government Targets and Aspirations



Lower costs

33%

reduction in the initial cost of construction and the whole life cost of built assets

Faster delivery

50%

reduction in the overall time, from inception to completion, for newbuild and refurbished assets

Lower emissions

50%

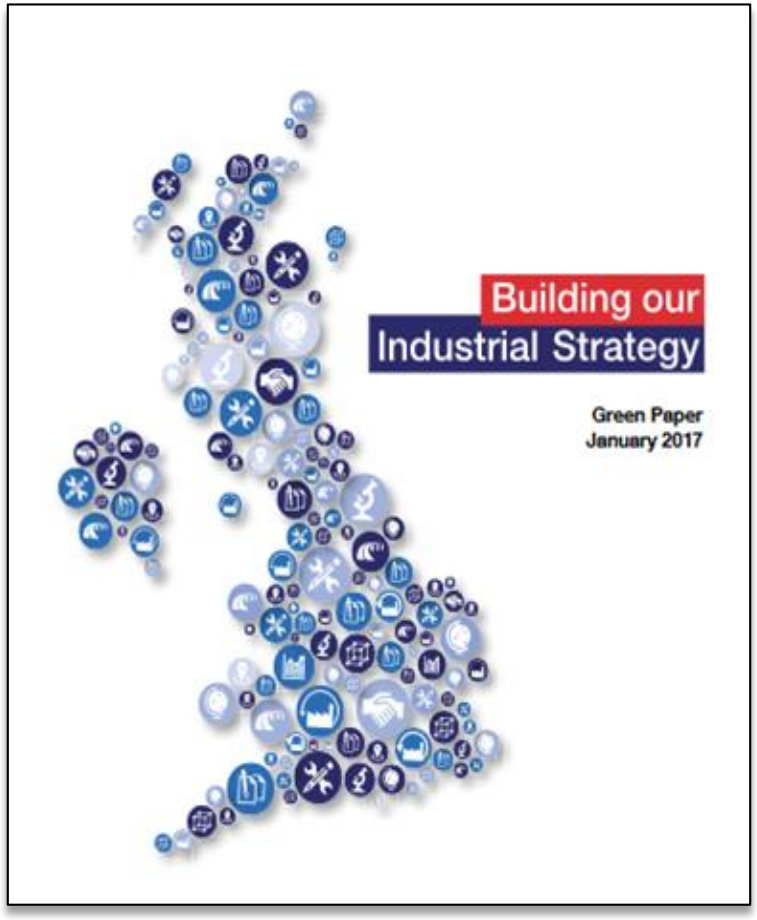
reduction in greenhouse gas emissions in the built environment

Improvement in exports

50%

reduction in the trade gap between total exports and total imports for construction products and materials

- Investing in science, research and innovation
- Developing skills
- Upgrading infrastructure
- Supporting businesses to start and grow
- Improving procurement
- Encouraging trade and inward investment
- Delivering affordable energy and clean growth
- Cultivating world-leading sectors
- Driving growth across the whole country
- Creating the right institutions to bring together sectors and places



The Digital Built Britain programme summary

An information framework of the UK built environment to enable data sharing across the entire market

New commercial frameworks for projects and facilities management designed with information management in mind

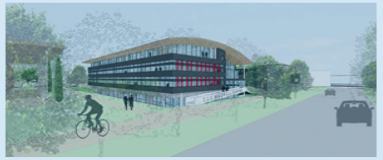
A co-operative cultural environment that seeks to learn, share and drive value

Training for the public sector in the use of data and data-driven decision making

Domestic and international growth and jobs in construction, design, technology and data sciences

Secure data sharing and transactions for built environment data

An open transparent certification and quality assurance “RegTech” market



A dedicated research, development and market exploitation Centre of Excellence

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DBB
Centre of Excellence

DBB CDA

DBB Core Team

DBB Work streams

Security

Public Sector BIM Level 2

- BWG
- IPA
- Other Public Sector Bodies
- BSI

City Convergence

L2C Programmes

- L2 Team
- Measurement
- Cities
- MTC
- DFMA
- BSI
- GEO

Level 3

L3 Programmes

- Technical
- Security
- Industrial Controls
- Commercial
- GEO
- Utilities
- Cultural
- Regtech

Level 4 Research

Bridgehead

- Methods
- RQ's
- Funding
- Contacts
- Papers

Market Engagement

Growth

International Programme

DBB Communication and Stakeholder Engagement

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Ministry of Defence

Education & Skills Funding Agency

Hampshire County Council

National Association Construction Frameworks
Serving the Public Sector

Tideway

DH Department of Health

The United Kingdom Parliament

Cabinet Office

Defence Infrastructure Organisation

highways england

[dstl]

Homes & Communities Agency

Environment Agency

Ministry of Justice

Home Office

CPS

hs2 engine for growth

OVERVIEW: LEVEL 2 BIM WORKING GROUP

"An on-going commitment to embedding Level 2 BIM in the public sector through a collaborative approach."

Level 2 BIM Working Group - Our Key Activities and Goals

- Alignment with emerging Level 3 by making BIM Level 2 'Business as Usual'
- Support a common approach to BIM Level 2 across departments and wider public sector procurement
- Encourage a whole life approach using BIM
- Develop a means of and then measuring BIM success
- Create inter-departmental BIM communities, which encourages help, support and share
- Creating and template common resources to provide consistency across government departments
- Meet the requirement for data verification to ensure BIM Level 2 is quality assured by the departments
- Champion / Drive improvements in organisational culture within departments
- Support the communication team in developing targeted communication material for sub-groups, departments and industry

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BACKGROUND: Where next? Beyond Level 2

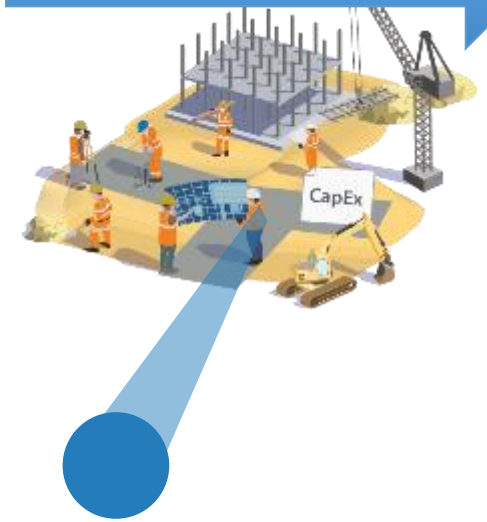
L2C(Convergence) and Level 3

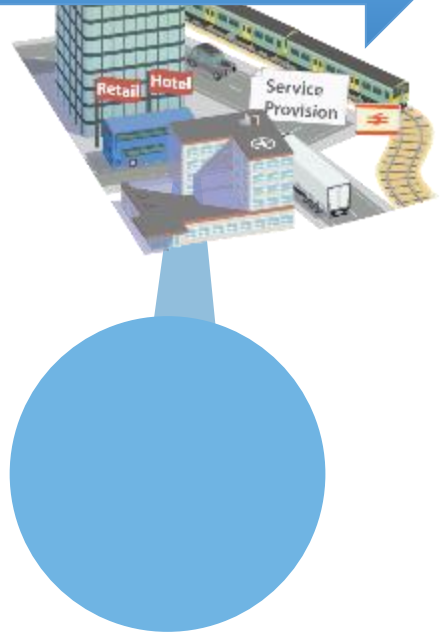
CapEx

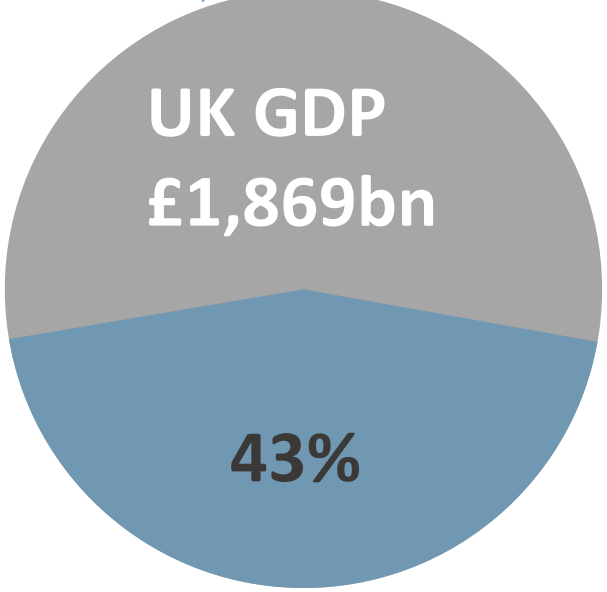
OpEx

Service Provision

Level 2 → Level 2 (C) → Level 3 → Level 4







£89bn

£122bn

£597bn

£808bn

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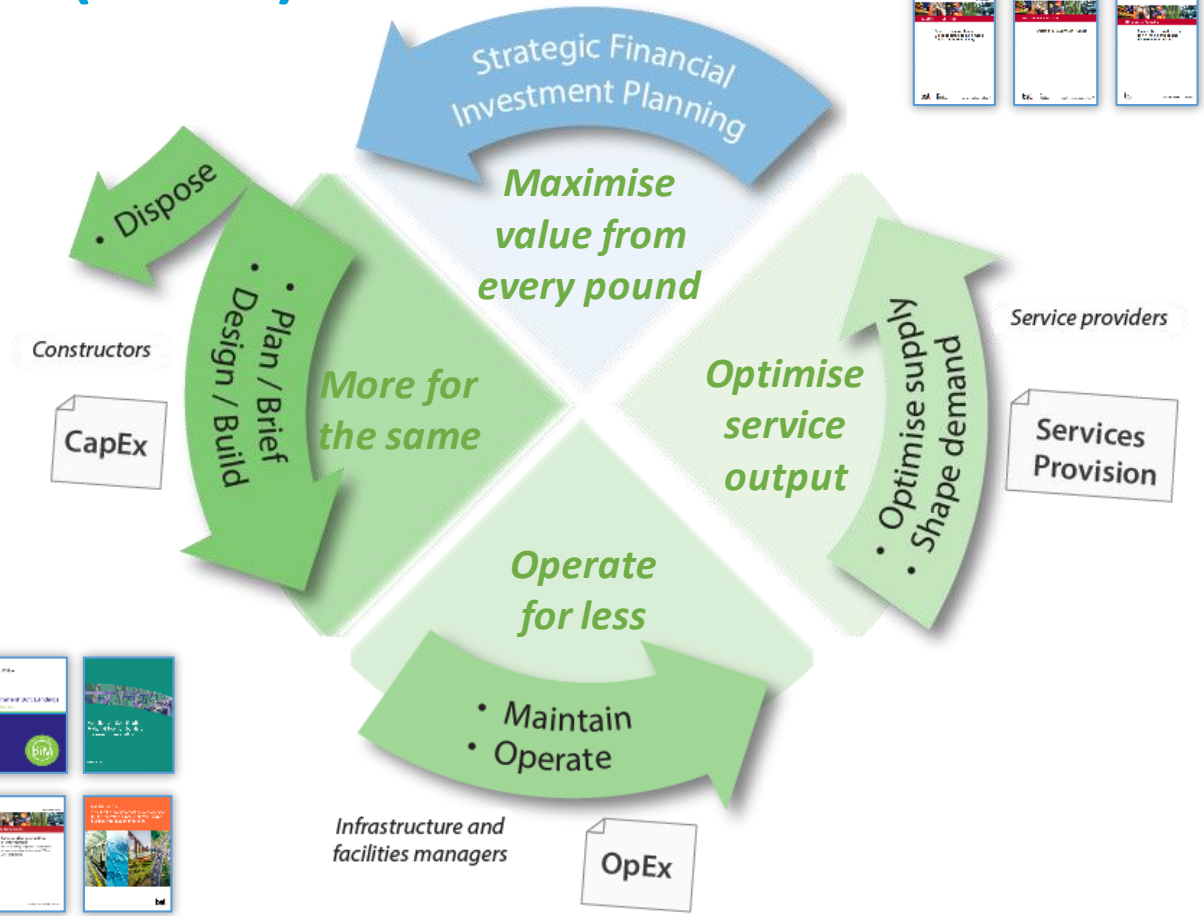
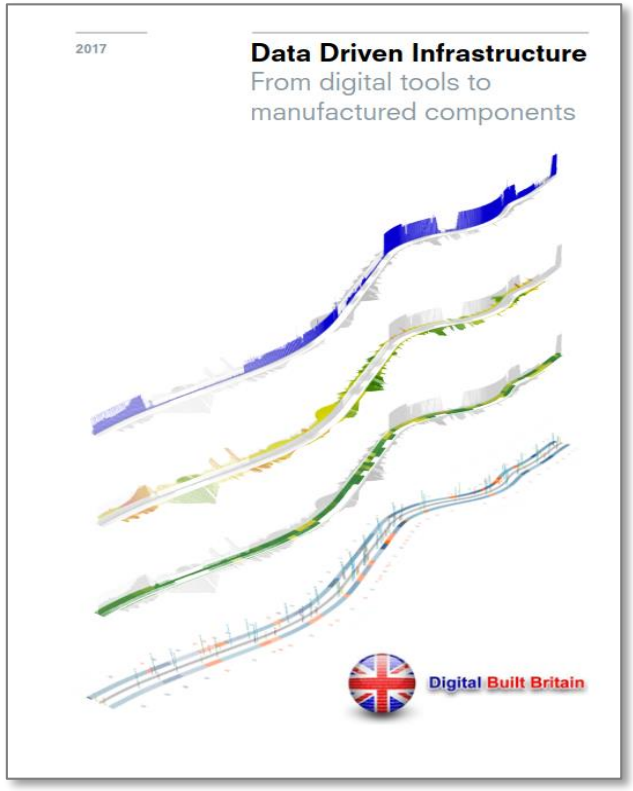
L2Convergence: BIM & (Smart) Cities

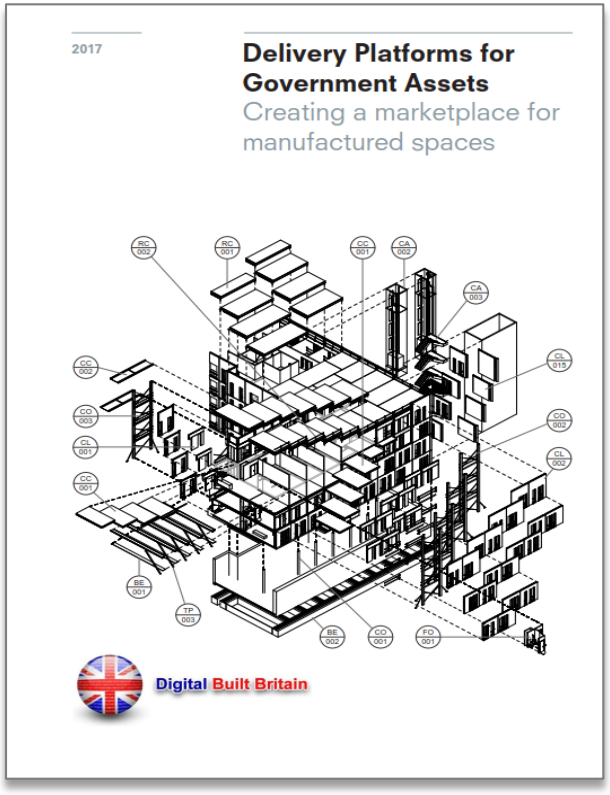


Level 2 convergence: Outcomes

- End-to-end asset life cycle data management process.
- Fusing of BIM, Sensors and City Services in a single set of Level 2 standards
- A key step for both construction and city services providers to work much closer in the delivery of assets and services

L2C: Advanced Manufacturing





"GOVERNMENT SPENDS BILLIONS ON BUILT ASSETS. STRUCTURALLY A LOT OF THESE BUILDINGS ARE NOT THAT DIFFERENT. TO BECOME MORE EFFICIENT AND TO MAKE DESIGN FOR MANUFACTURE PROCESSES COST EFFECTIVE WE NEED TO ADOPT A COMMON APPROACH. THAT WAY WE CAN PROVIDE VOLUME"

Applying off-site thinking to find smarter ways to standardise and optimise

Digital Built Britain enables the information feed-forward and feed-back loops…

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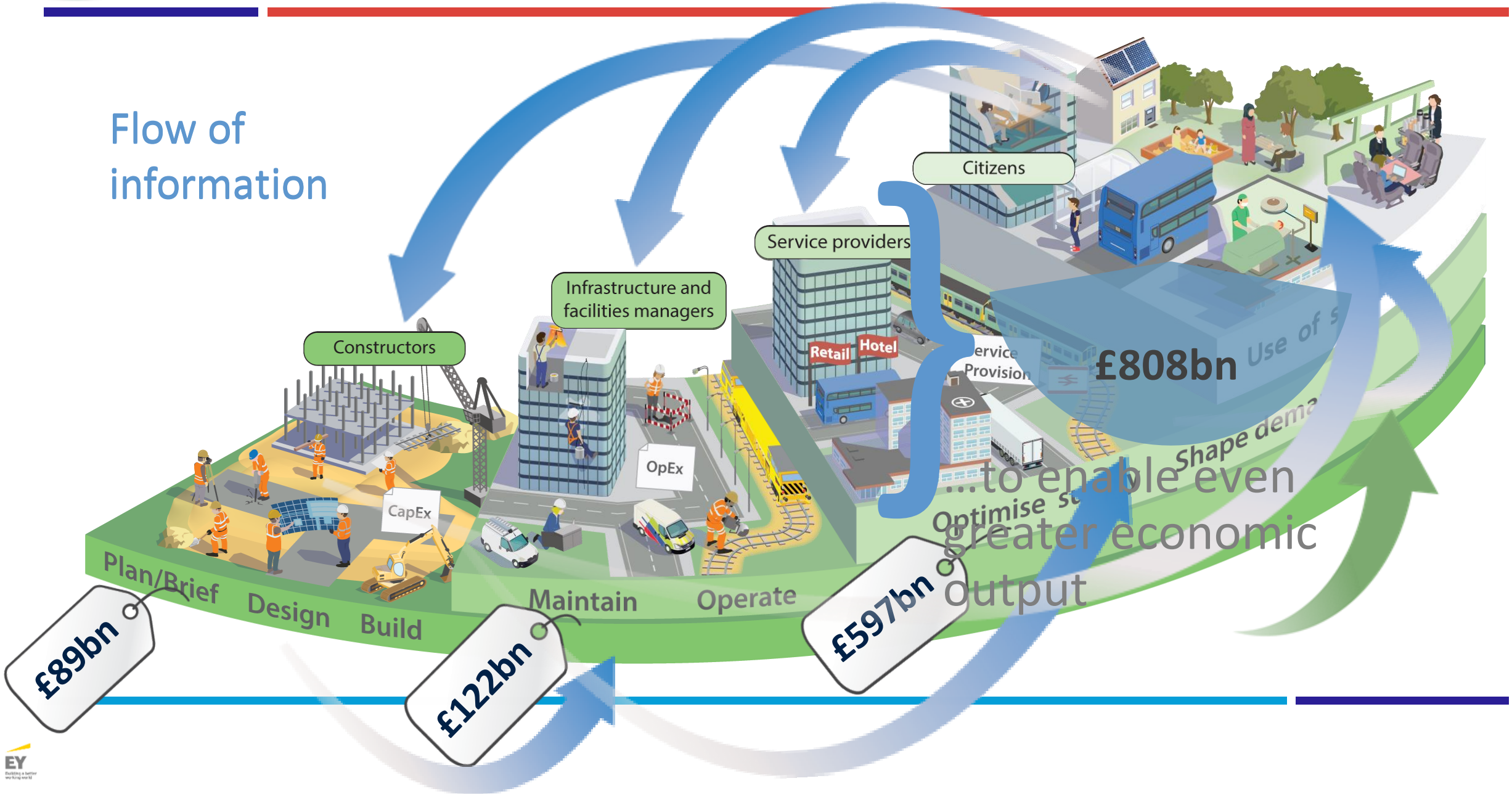
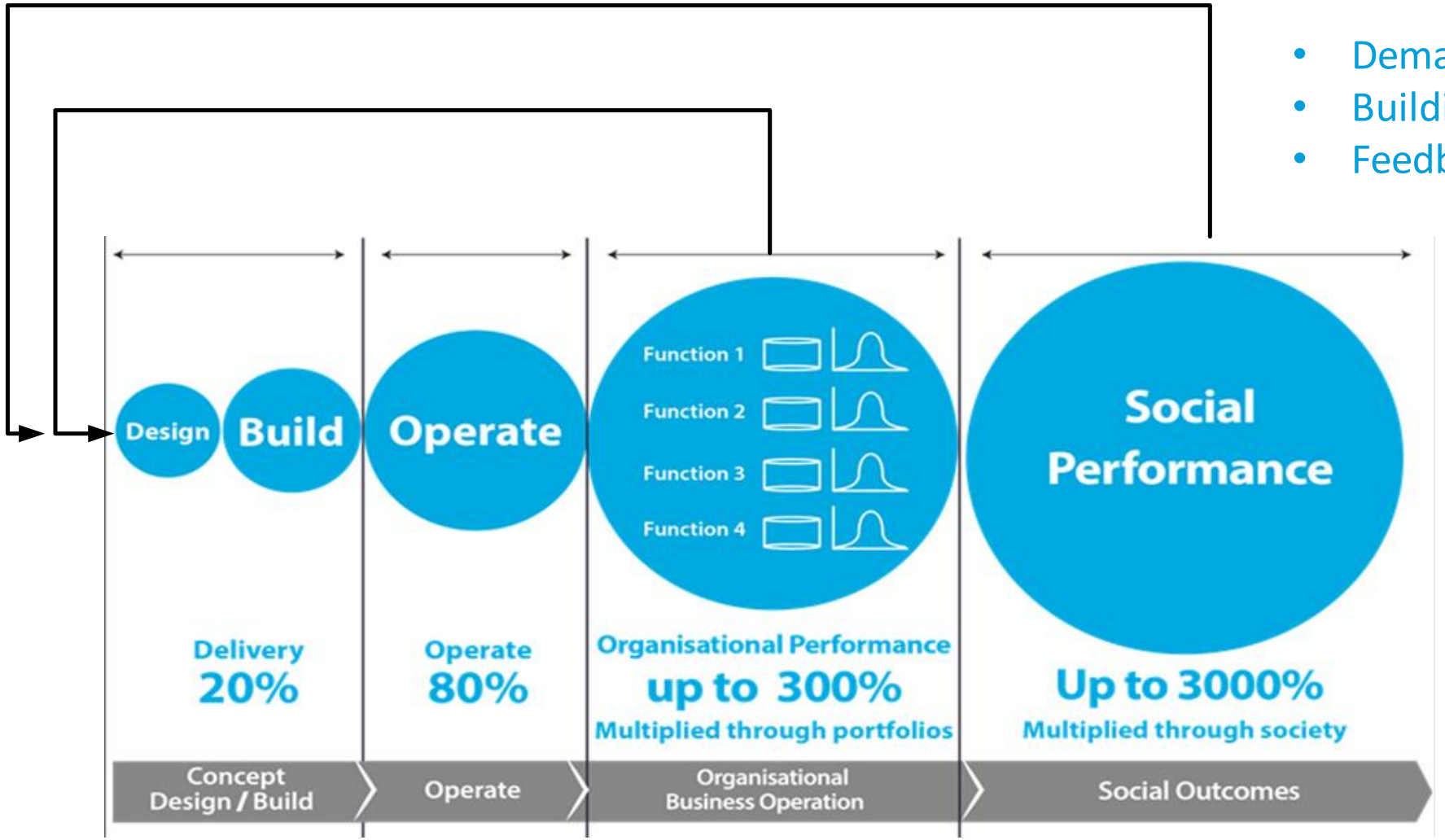
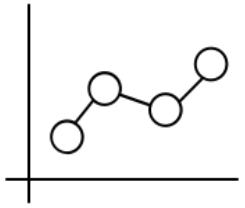


Level 3 – Functional Improvement

- Demands of Customers
- Buildings and Communities
- Feedback & Systematic Learning



IoT



Analytics