

# Infrastructure and innovation

**Bill Hewlett**

Technical Director

Costain

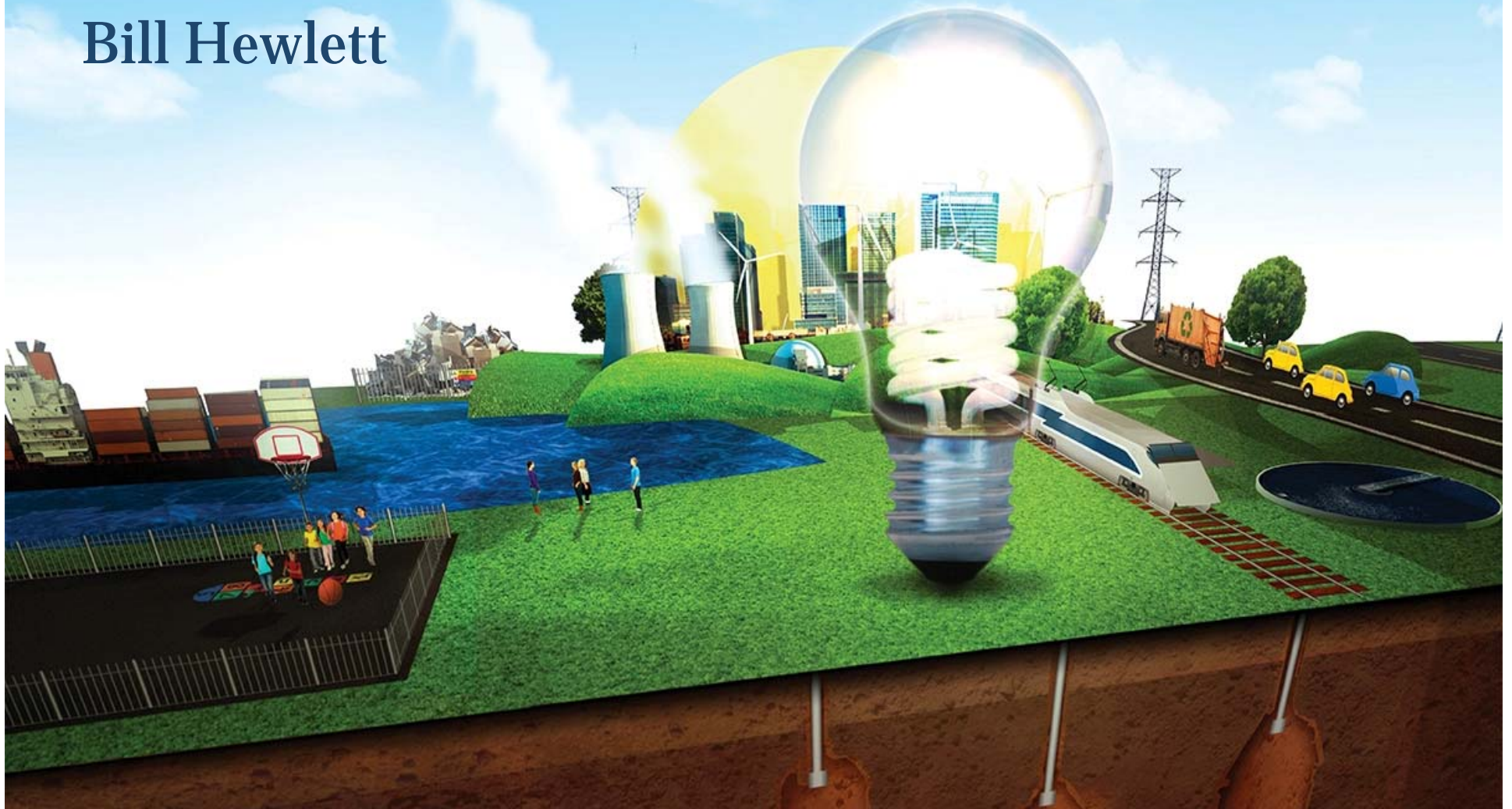


# Infrastructure & Innovation

## 11<sup>th</sup> January 2012

COSTAIN

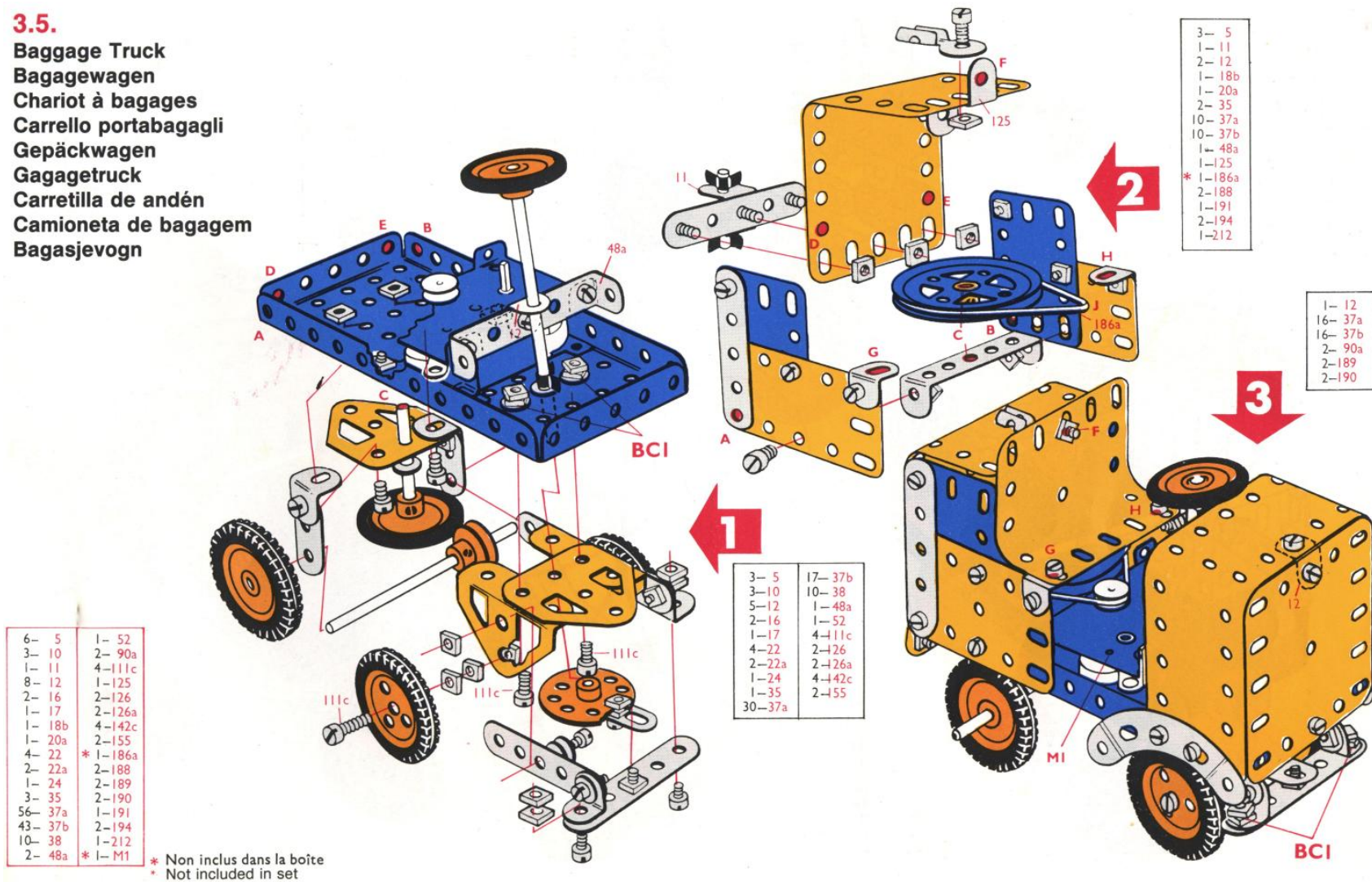
Bill Hewlett



# Procurement

### 3.5.

**Baggage Truck**  
**Bagagewagen**  
**Chariot à bagages**  
**Carrello portabagagli**  
**Gepäckwagen**  
**Gaggetruck**  
**Carretilla de andén**  
**Camioneta de bagagem**  
**Bagasjevogn**





**Determinable**

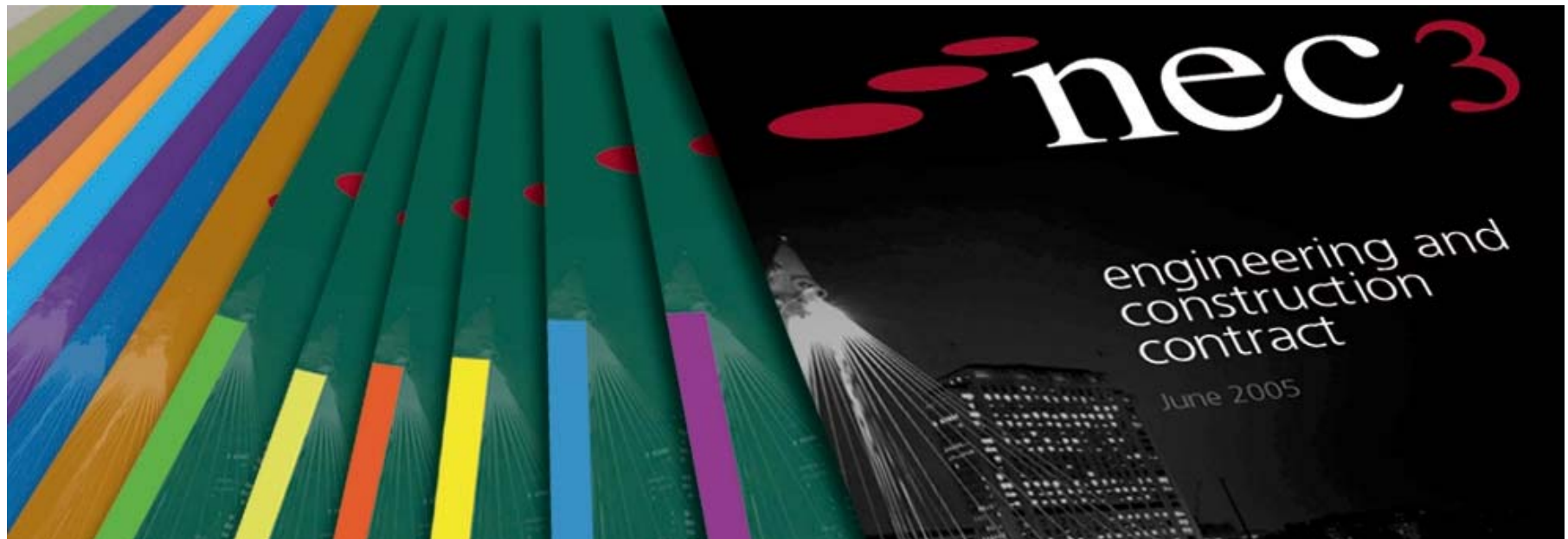


**Complex**



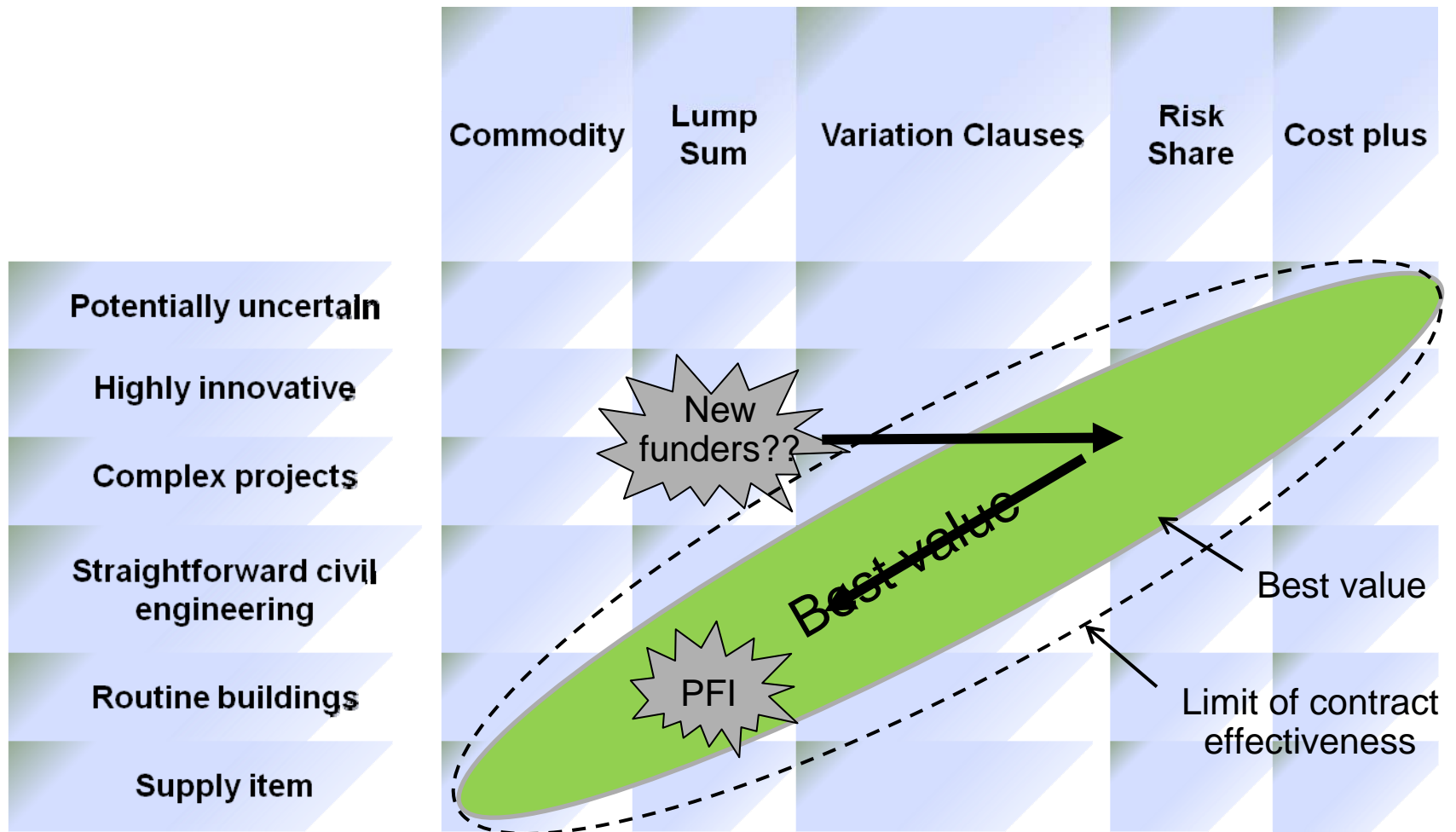
# How to allocate risks in construction contracts

Martin Barnes



# Form of procurement

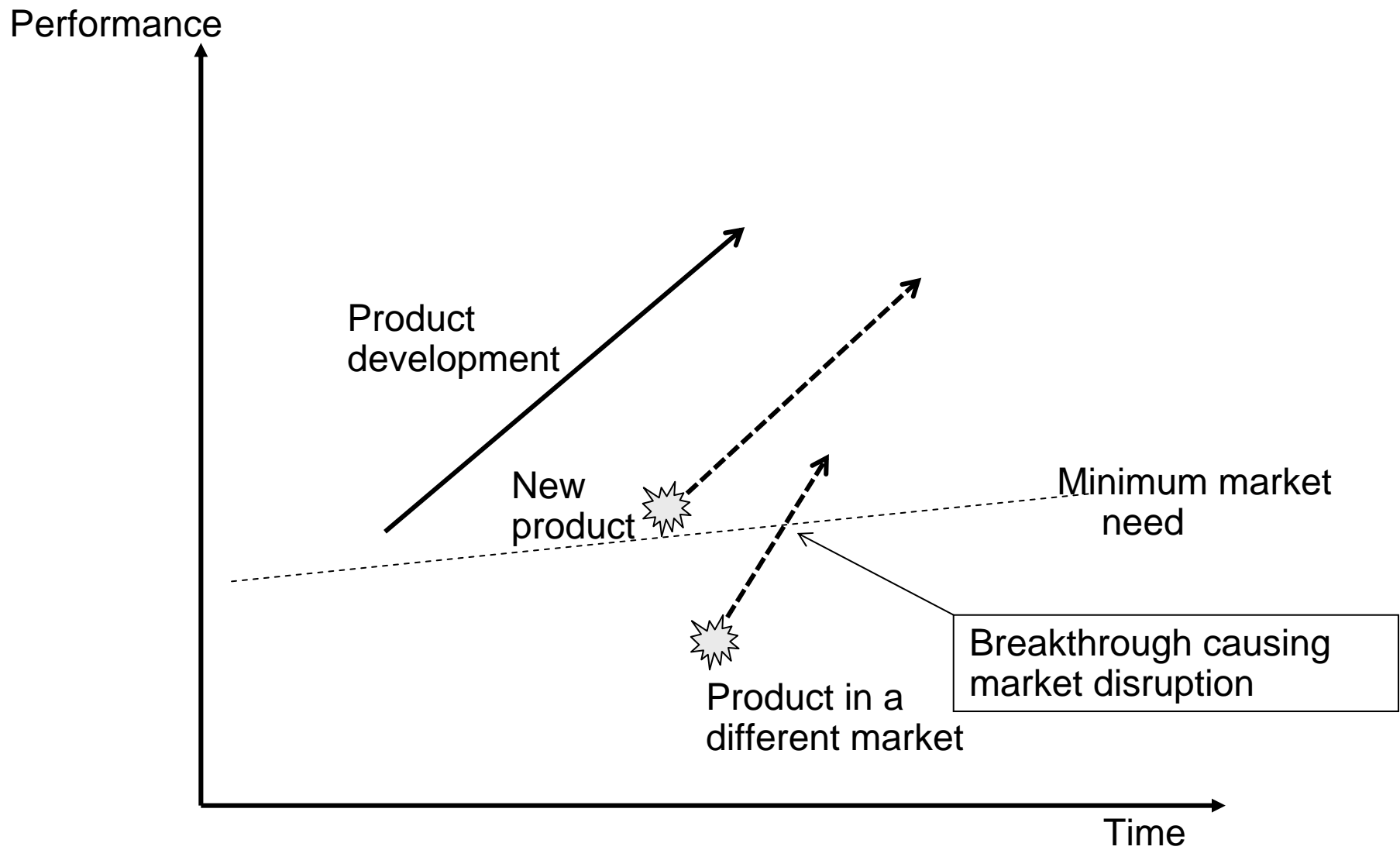
## Project certainty



Adapted from Gosling, J, Hewlett, B, Naim, M (2011) A framework for categorising engineer-to-order construction projects. *Association of Researchers in Construction Management (ARCOM)*, 5th-7th September 2011, University of West England.

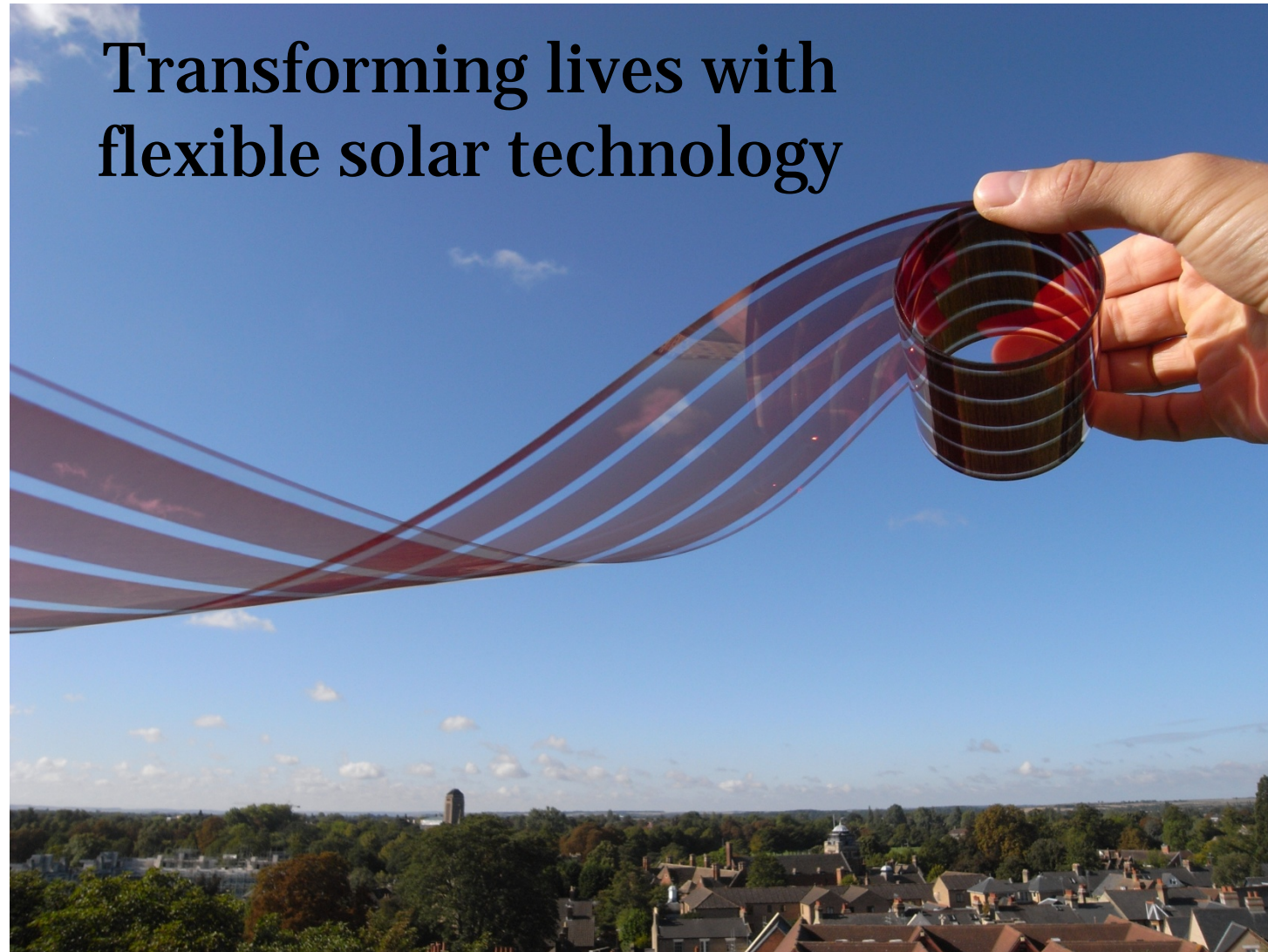
# Disruptive Innovation





Adapted from Clayton M Christensen: *The Innovators Dilemma: When New Technologies Cause Great Firms to Fail* Harvard Business School Press, 1997

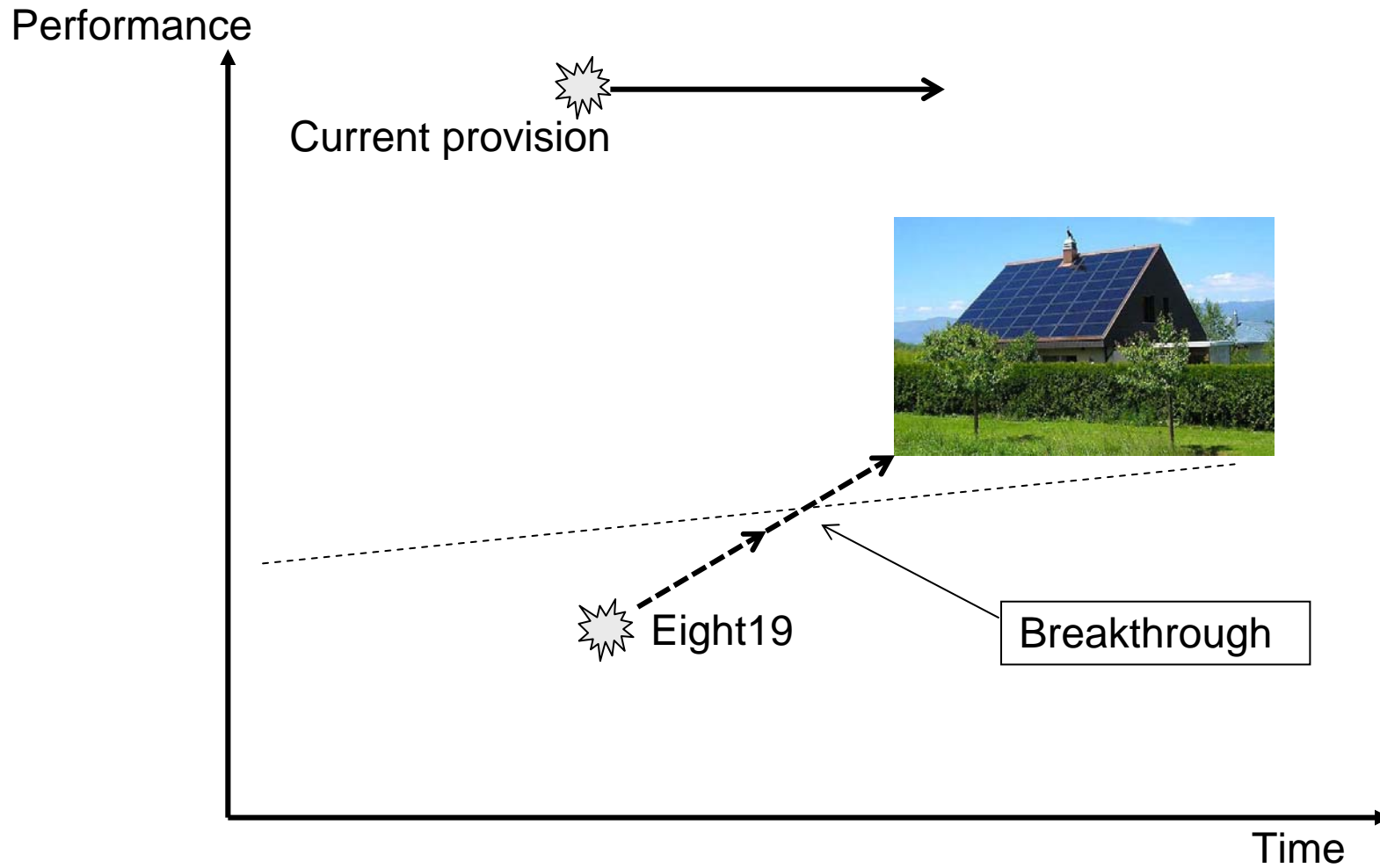
# Eight19



# Eight19



# UK domestic electricity supply



Adapted from Clayton M Christensen: *The Innovators Dilemma: When New Technologies Cause Great Firms to Fail* Harvard Business School Press, 1997

- **Social Interaction** can we  
replace  
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# PROGRAMME

**Soundtracks**

JOE BUTLER KISMET  
VOICES UNLIMITED LTD  
ST EGWINS SCHOOL  
CHARLBURY SCHOOL CHOIR  
CHARLBURY MORRIS

Friday 21st Oct Evesham Arts Centre  
Sat 22nd Oct St Mary's Church, Charlbury

# Conclusions

- Core purpose, first principles
- Higher level of scientific understanding
- Social sciences as well as technical
- Understanding complex systems is a prerequisite
- We need stability overall, but also disruptive change
- Industry & academia to be closer
- Projects can be ‘living laboratories’



Thank you