

**Making the health and wellbeing system work for Slough**

Prof Terry Young



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The Cumberland Initiative

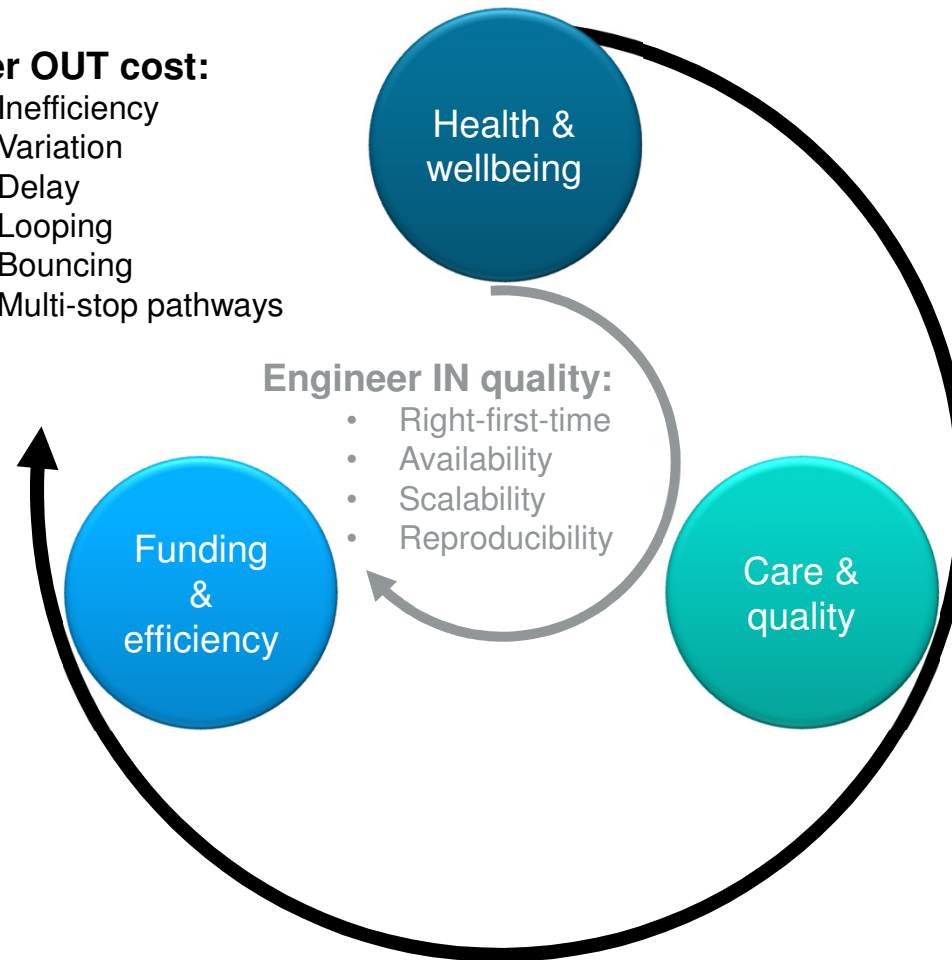
## The Five Year Forward View

- Needs to close critical gaps (p7)

## The Five Year Forward View: 3 gaps (p7)

### Engineer OUT cost:

- Inefficiency
- Variation
- Delay
- Looping
- Bouncing
- Multi-stop pathways



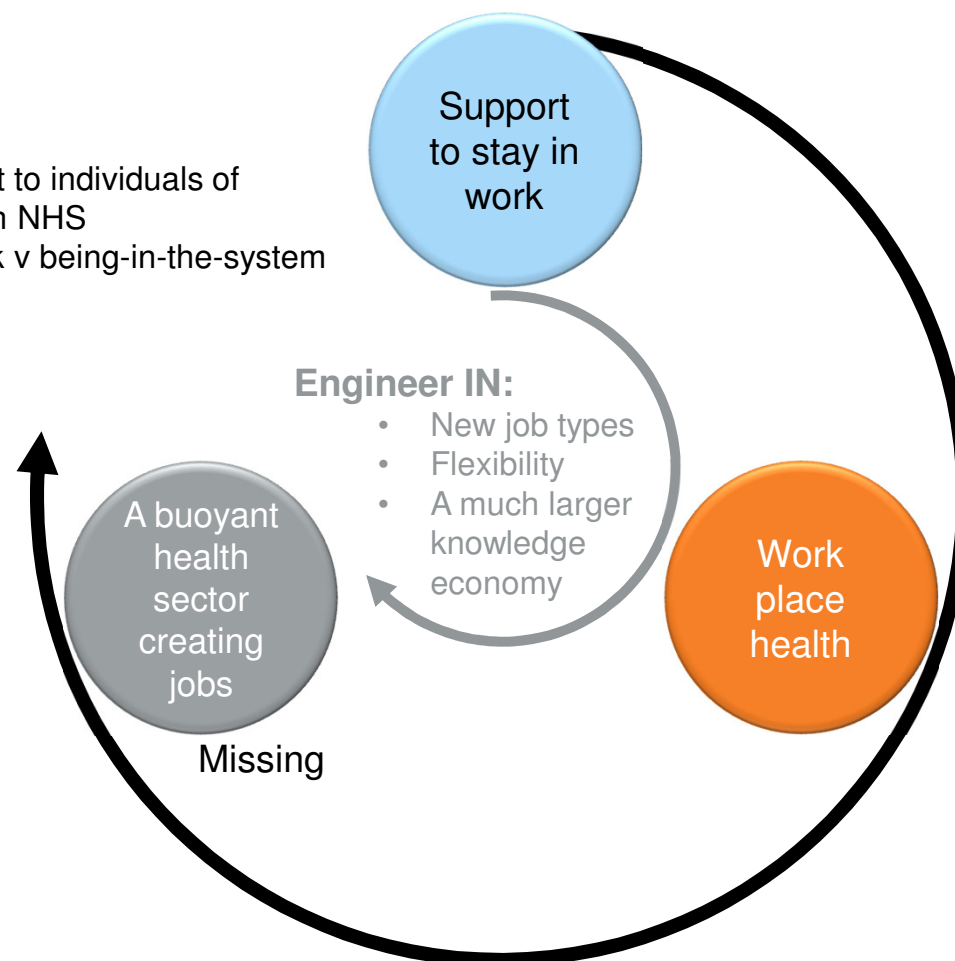
## **The Five Year Forward View**

- Needs to close critical gaps (p7)
- Needs to connect health and wealth in a new way [p 11]

## Health and Employment (p 11)

### Engineer OUT:

- Crippling cost to individuals of engaging with NHS
- Being-in work v being-in-the-system



## The Five Year Forward View

- Needs to close critical gaps (p7)
- Needs to connect health and wealth in a new way [p 11]
- Needs to be able to design and deploy new models of care with confidence [Chapter 3]

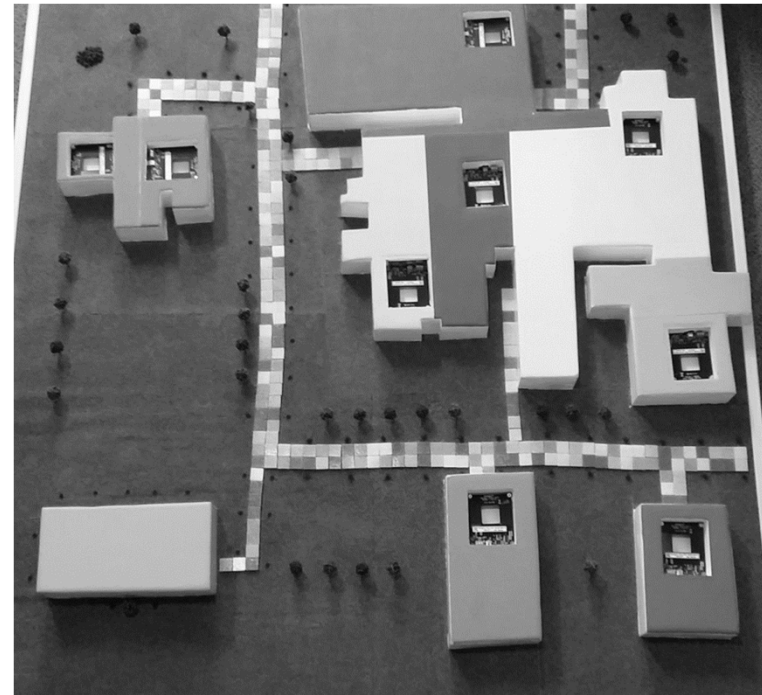
# What is a model?

## Lots of options:

- A shared mental construct
- Something small and physical
- Something large enough to walk through
- Something mathematical
- A computer representation

Physical, maths-based & computer models can PROVE out services.

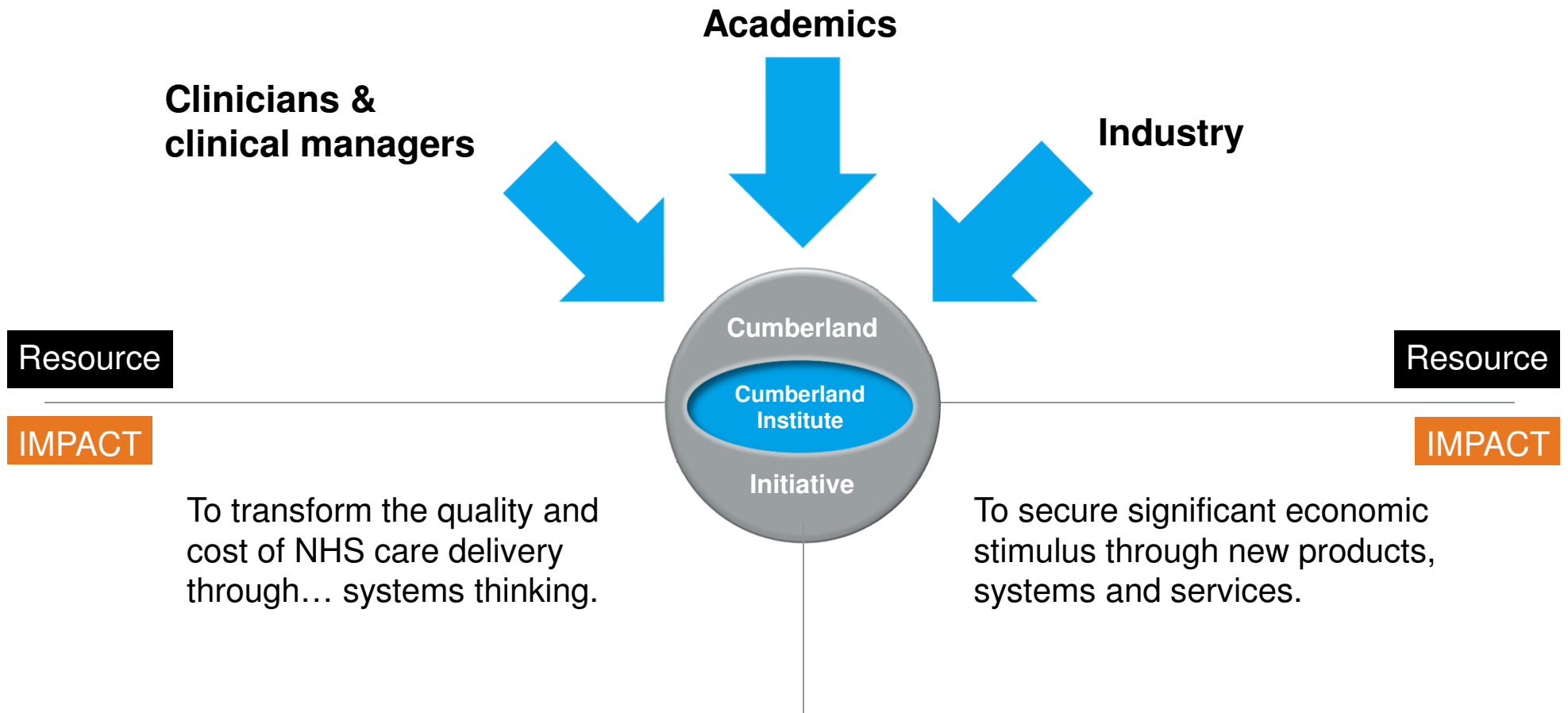
They are simpler versions of reality that TEST the critical performance & unintended consequences.



Final Year Project model of Mt Vernon Cancer Centre with proximity sensors to explore staff and patient flows. Laxman Kerai at Brunel 2014/15. Supervisors D Bell & T Young



# What is our vision?

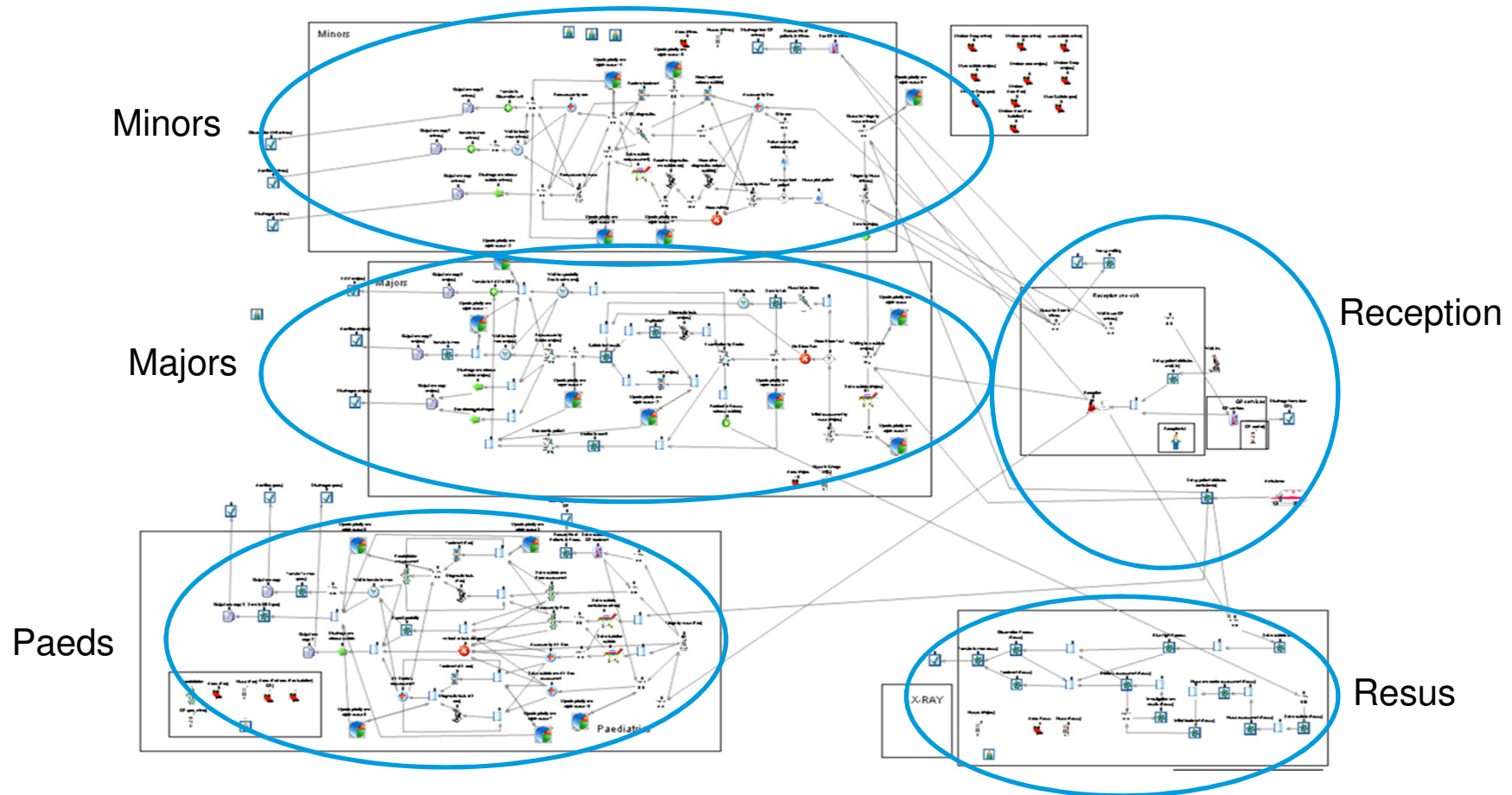


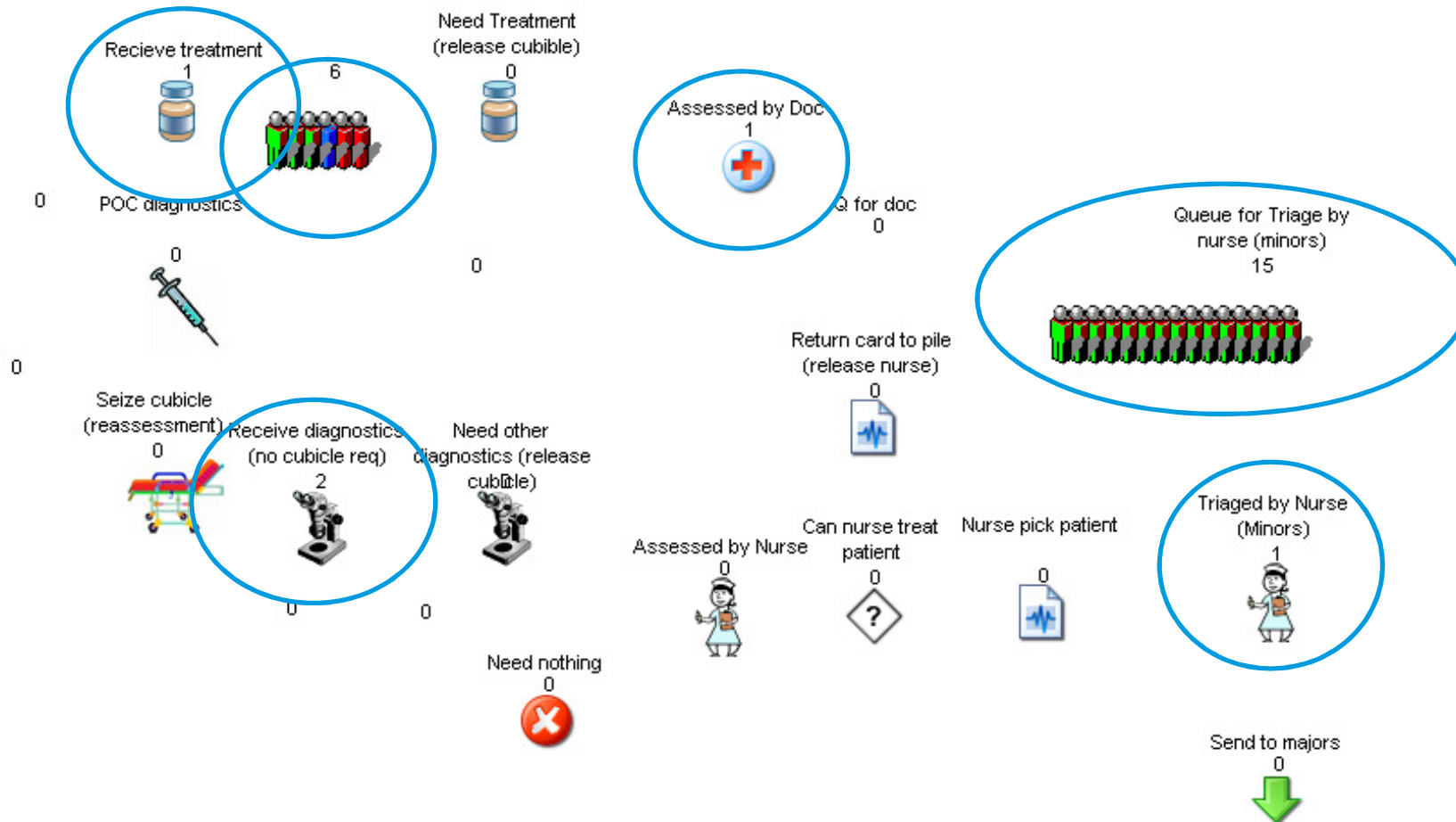
## Example – an Emergency Dept.

This example has resulted in several publications, including:

- J Coughlan, J Eatock & N Patel (2010) Simulating the use of re-prioritisation as a wait-reduction strategy in an emergency department *Emergency Medicine Journal* doi:10.1136/emj.2010.100255
- Eatock J, Clarke M, Picton C and Young T (2011) Meeting the four-hour deadline in an A&E Department *Journal of Health Organization and Management* **25**(6):606-624

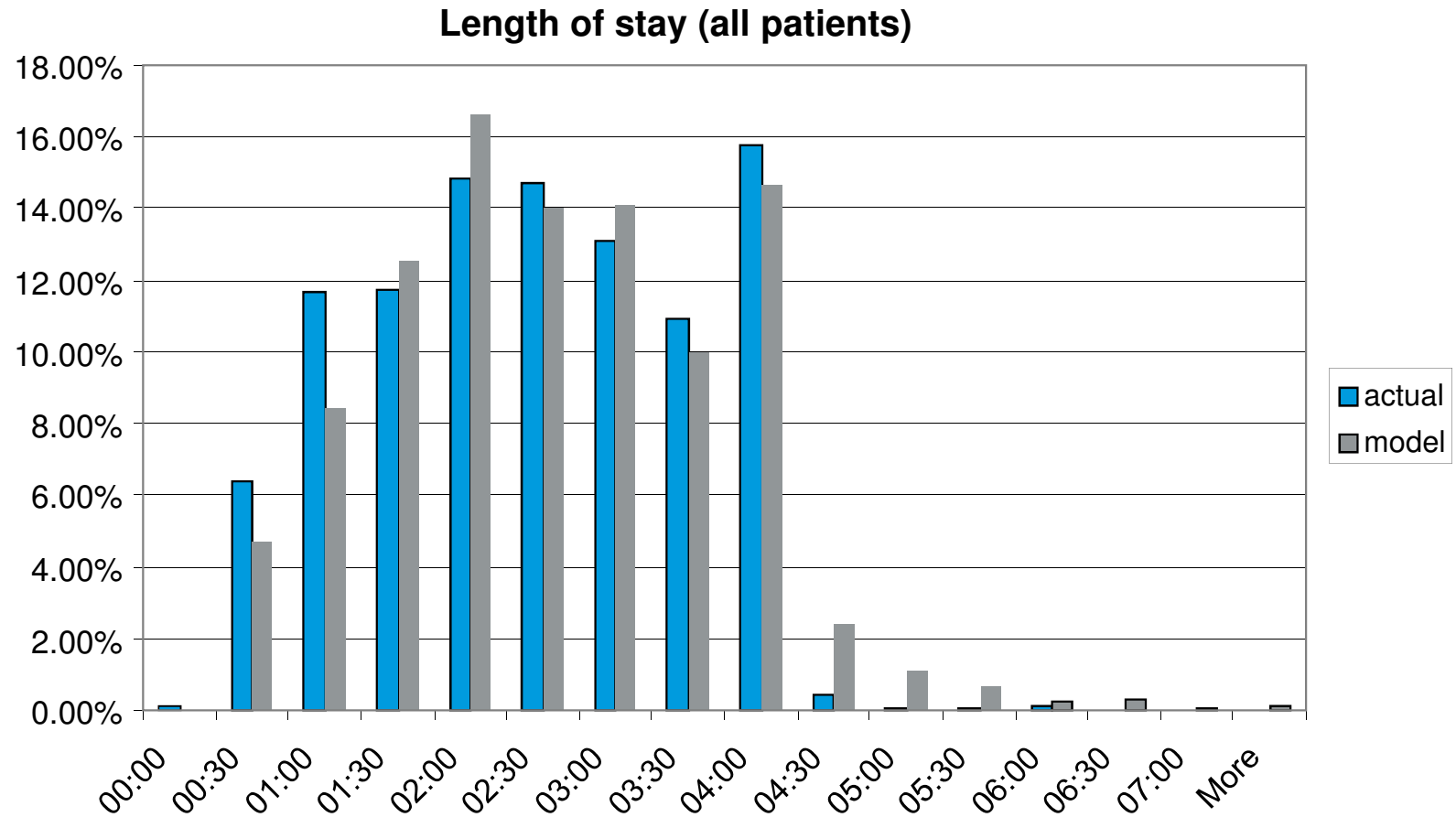
The simulation model was developed and run by Dr Julie Eatock



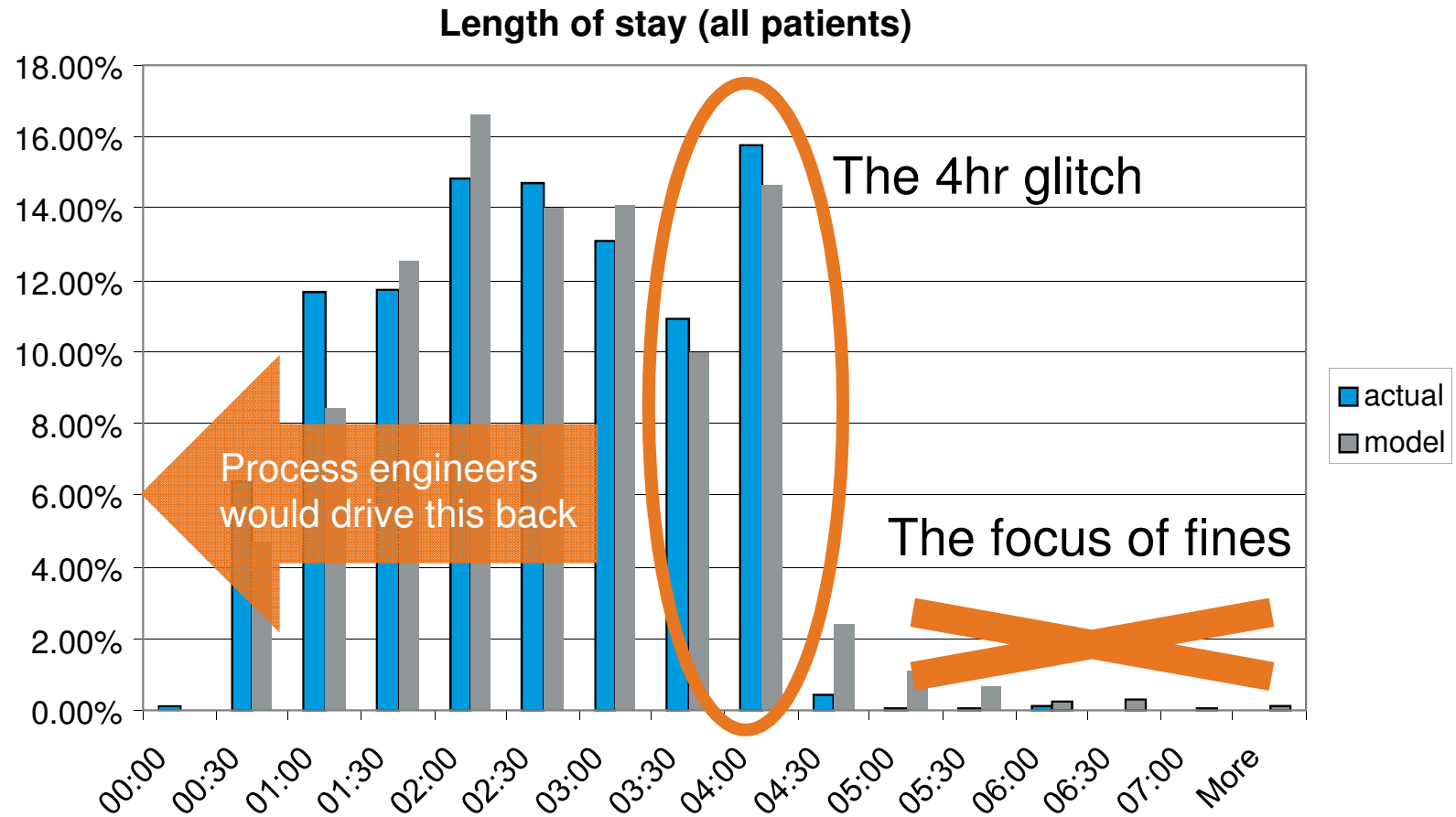




# Results



# Results





Walk-through & mock-up



Training



Computer modelling at scale



Serious Games  
(e.g. trading-floors with  
commissioners and providers)



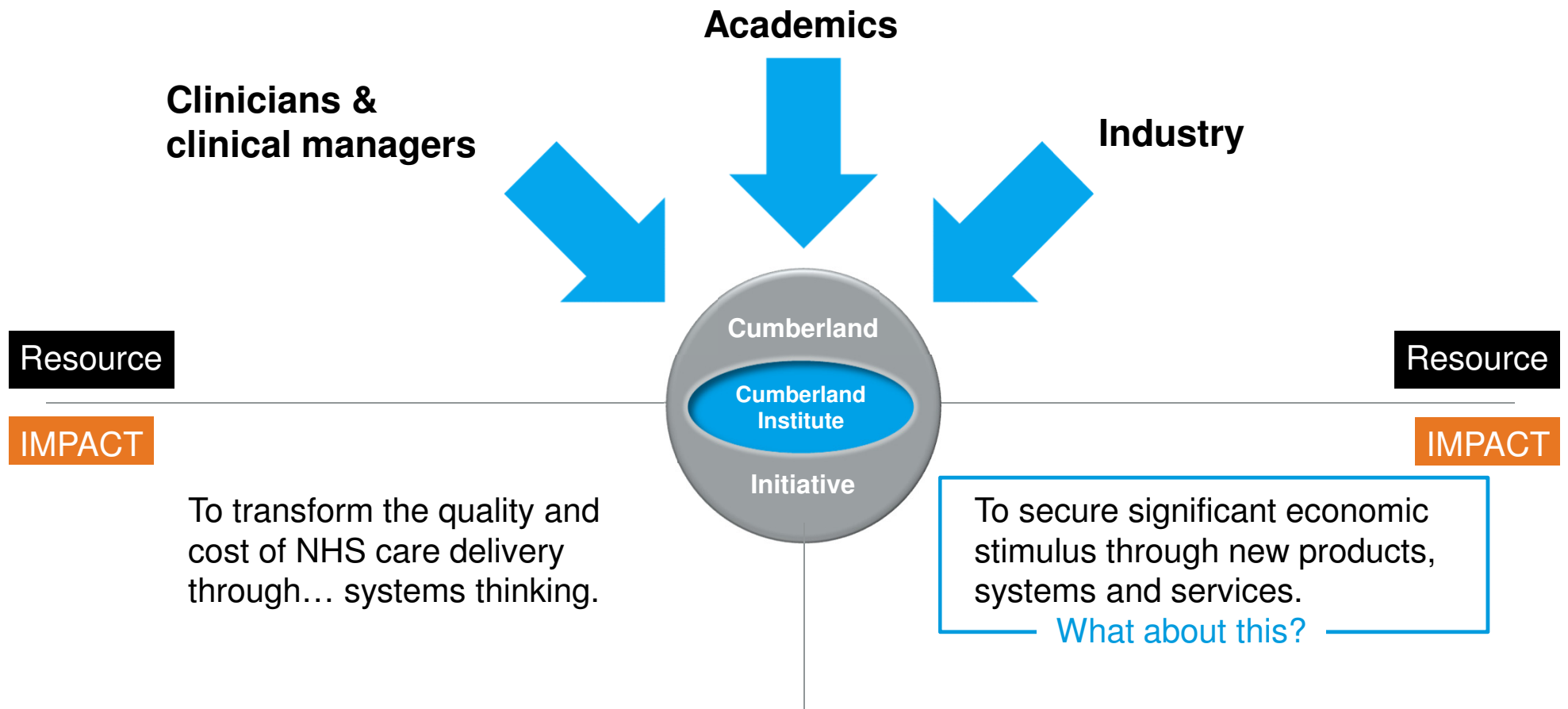
Artwork by D4B Studio



## Public Health

- Data hub for exercise games
- Data aggregation exercises
- Top-100 research (how are the best centenarians doing)

# What is our vision?



# Cumberlab – the health & wellbeing agenda

Artwork by D4B Studio



## Public Health

- Data hub for exercise games
- Data aggregation exercises
- Top-100 research (how are the best centenarians doing)

## Wealth creation

- Interactive planning of new types of job

## Health industry hub

- A place where commerce, clinicians and academics meet

## What can we offer?

- Around 100 of the best brains and experience in healthcare operational research and engineering design in the UK (and spreading across the world).
- A significant academic, clinical and commercial footprint in healthcare, in Slough, but with a national reach
- Clinical, industrial and academic communities that have collaborated closely for the past 5 years.
- A central creative, neutral space – the CumberLab

**“There is no path; the path is made by walking”**

With thanks to Dr Chris Manning

