Design, Designers & Innovation

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Imperial College and
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So many questions ...

What is Design?

Who are Designers?

Does it Matter?

(When) Is Design Effective?

Are there "Market Failures"?

or are "Systems Failures" more important?

What is Design?

"No one is quite sure how to define design"
   Jeffrey L. Miekle

"Design is to design a design to produce a design"

    i.e., design is a process used to create an intermediate output (in the form of a sketch, plan, etc) that is then used to produce a final output (sign, product, system, etc)

   John Heskett

Note, design is very poorly represented in the Frascati Manual

A Little Game ...

Who is Your Design Hero?
(or Design Villain)

Philippe Starck

(Dame) Vivienne Westwood

(Sir) James Dyson

Jonathan Ive (and friend)

Malcolm McLean

A strategic design thinker,
who changed the world

"McLean's fundamental insight, ... was that the shipping industry's business was moving cargo, not sailing ships. That insight led him to a concept of containerisation quite different from anything that had come before. McLean understood that reducing the cost of shipping goods required not just a metal box but an entire new way of handling freight. Every part of the system – ports, ships, cranes, storage facilities, trucks, trains and the operations of the shippers themselves – would have to change." Marc Levinson: The Box

한진 보스톤
HANJIN BOSTON
MAJURO

What is Design & Who are Designers?

"design, stripped to its essence, can be defined as **the human capacity to shape and make our environment** in ways without precedent in nature, to serve our needs and give meaning to our lives" John Heskett
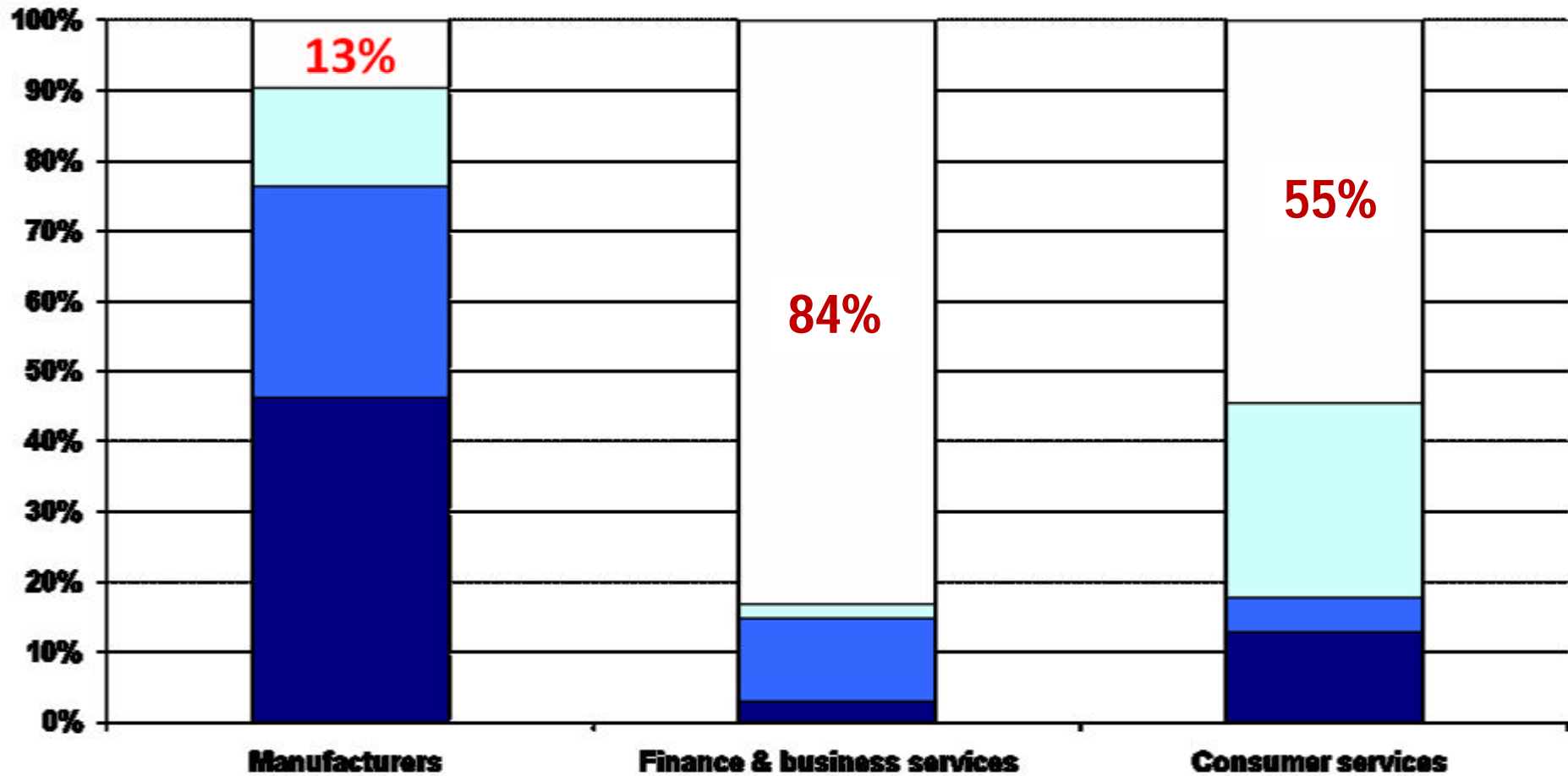
"Engineers ensure things work, marketers position goods appropriately, but **designers specialise in the detailed interaction between what a company produces and the lives of its users**." John Heskett (again!)

It follows that: **Design > the domain of Designers**

Spaces of Design(ers) & Innovation

Clive Grinyer

Product
Systems

"Lipstick on a Pig"

Stand alone
products

A Subservient
Afterthought
(if that!)

Role of Designers in NPD/NSD

Manufacturers: 13%
Finance & business services: 84%
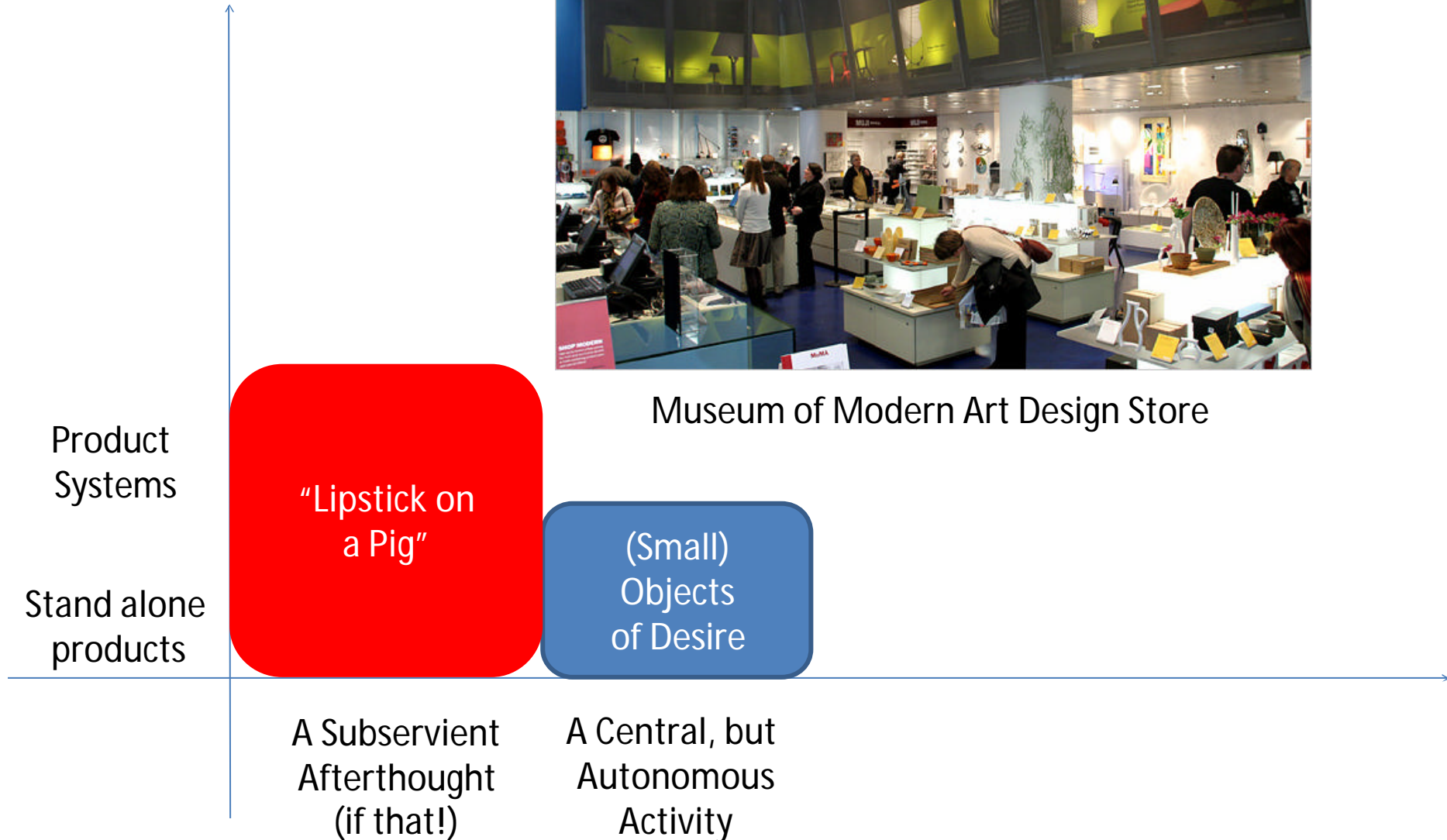Consumer services: 55%

Legend:
- Design Manger / design team leads and guides whole process
- Designers are used in all stages
- Designers are used in some specific stages
- Designers are not included in the process

Source:
Design Council, 2005

Spaces of Design(ers) & Innovation

Museum of Modern Art Design Store

Product Systems

"Lipstick on a Pig"

(Small) Objects of Desire

Stand alone products

A Subservient Afterthought (if that!)

A Central, but Autonomous Activity

Spaces of Design(ers) & Innovation

Lifestyles

Product
Systems

Stand alone
products

"Lipstick on
a Pig"

(Small)
Objects
of Desire

Brands,
Identities
etc.

Networked
technologies
(iPod + iTunes))
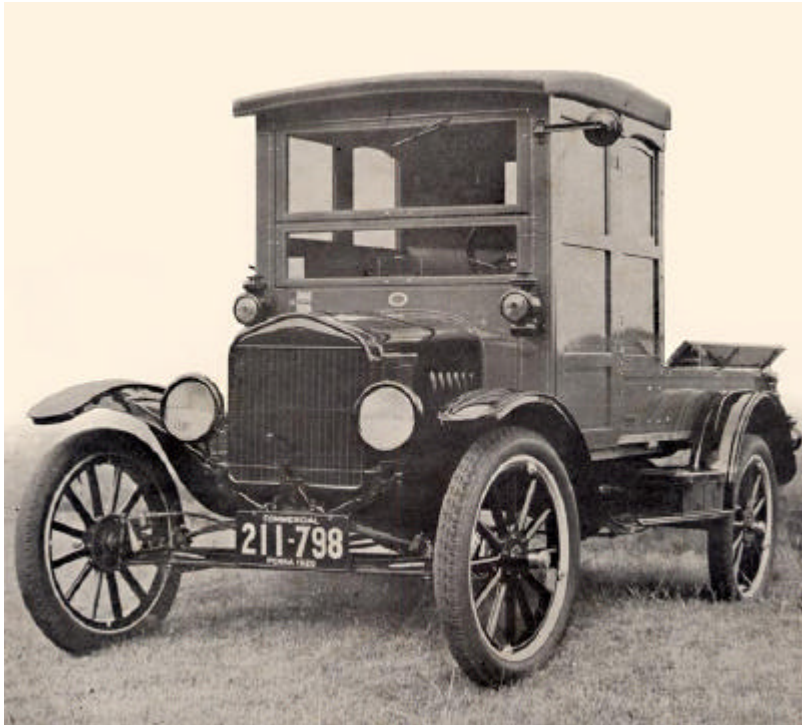
A Subservient
Afterthought
(if that!)

A Central, but
Autonomous
Activity

A Complementary
Activity, or
Co-specialised Asset

But is all this Innovation?

1927: Ford replaces Model T with Model A
"The Most Expensive Art Lesson in History"

"there was nothing particularly innovative about the Ford Model A. Its significance lay in the fact that America's most famous industrialist ... had spent $18m on retooling to keep pace with more artful competition" (i.e., GM) Jeff Miekle

Spaces of Design(ers) & Innovation

Systems

Lifestyles

Product
Systems

Stand alone
appliances

"Lipstick on a Pig"

(Small) Objects of Desire

Brands, Identities etc.

Networked technologies (iPod + iTunes)

A Subservient Afterthought (if that!)

A Central, but Autonomous Activity

A Complementary Activity or Co-specialised Asset

A Synthesising and Integrative way of Thinking
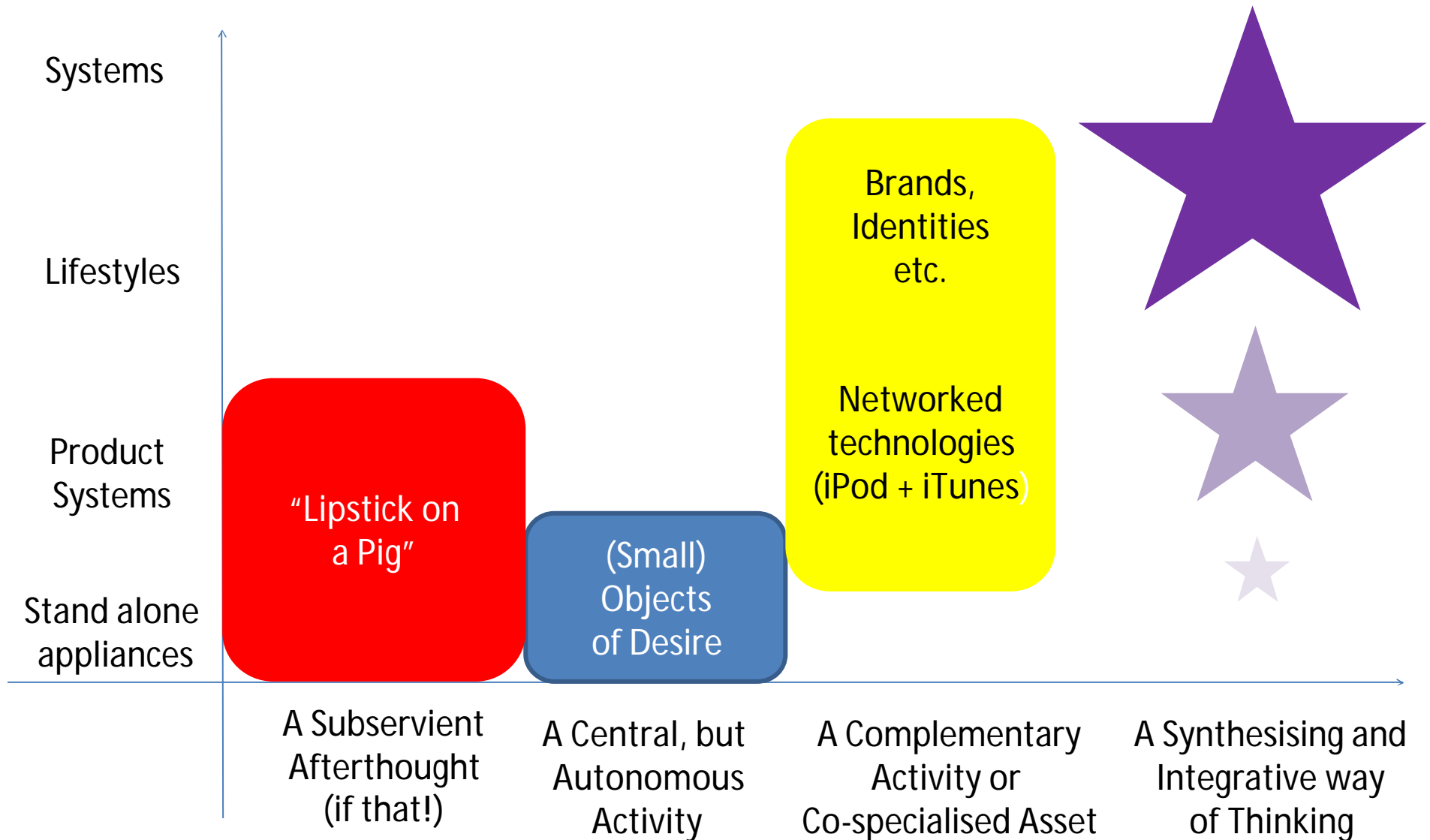
Strategic Design

Strategic Design Stroke Pathways Project

1. A design driven methodology to define the nature of complex system problems

2. A strategic roadmap to improving stroke patient outcomes at lower costs

3. Connecting the ideas to implementation

Not all strokes are the same

Key is identifying severe strokes very fast and accessing critical care facilities

Marco Steinberg
(Harvard Graduate School of Design)

Organisational innovation is more important than technological changes

Strategic Design

- Other case to develop – micro-credits in India

Summary

Design and designers have complex inter-relationships with innovation

Design can be used to hold back innovation or induce 'unnecessary' innovation

But it can also be central to radical changes in the organisation of activities

Design Thinking & Managing as Designing

Design Effectiveness

Several ad hoc studies show benefits to investing in design

A lack of consistent definitions and analytical approaches reduce the power of these findings

Current work explores the complementarities between investing in design, R&D & marketing

Policy, Design & Innovation

Innovation policy has been excessively focused on the supply of new technologies

Has neglected users ("the demand side") and systemic, organisational changes (but changing!)

Economists increasingly recognise that performance derives from organisational changes that inter-relate with technological change

Design has the potential to contribute substantially to both these agendas

Policy Foundations:
Market or Systems Failure?

"Market failure" is the condition where the allocation of goods and services by a free market is not efficient.

Causes include significant transaction costs and information asymmetries: Design & designers obviously suffer from these.

But design also contributes to market failure through branding and product differentiation.

Policy Foundations:
Market or Systems Failure?

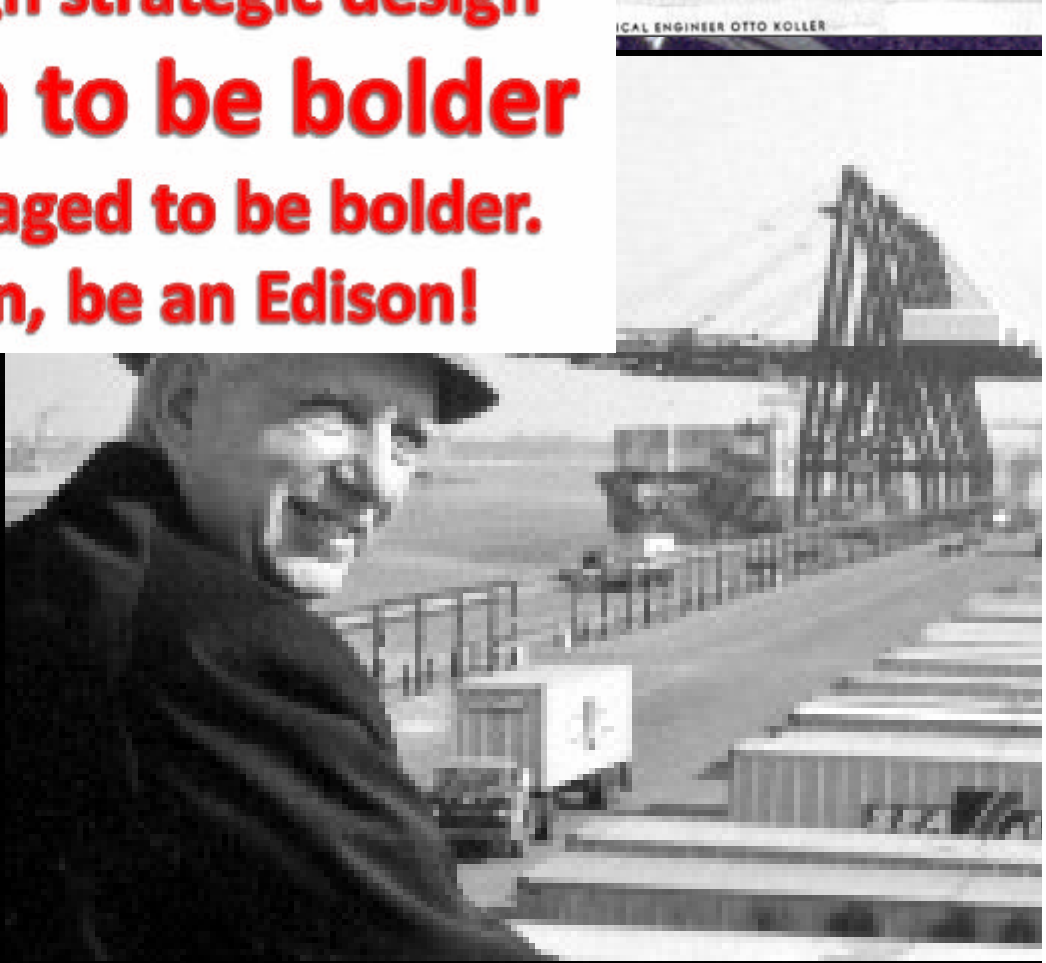Market failure requires that we think in term of established categories and structures
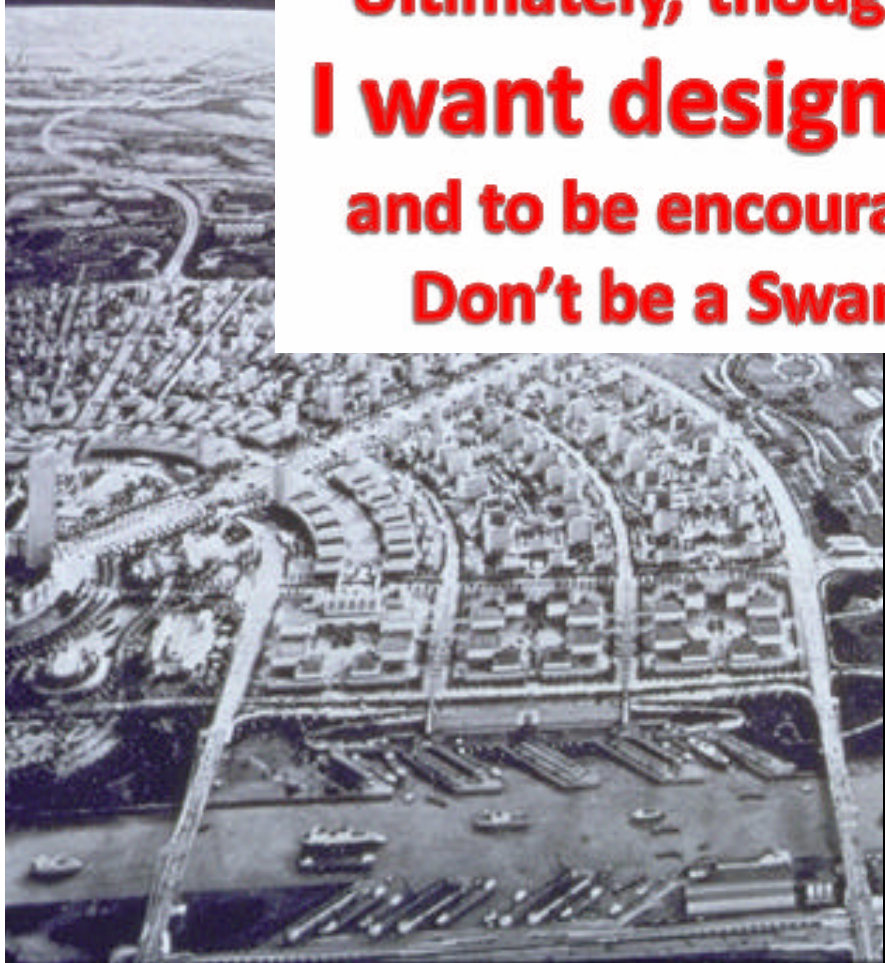
Malcolm McLean didn't, and Marco Steinberg isn't challenging the existing approaches

By unpacking systems we understand how they are failing and can be improved
(e.g. London Heathrow).

That is a powerful way that strategic design thinking can benefit our economies & societies
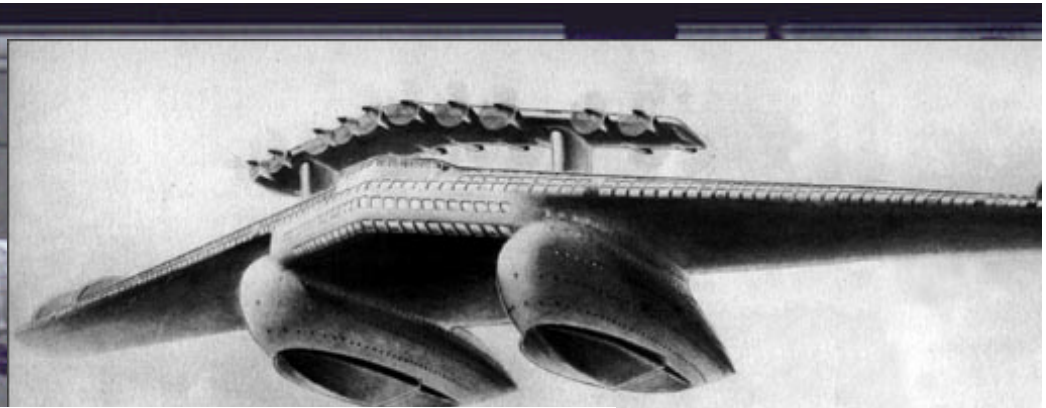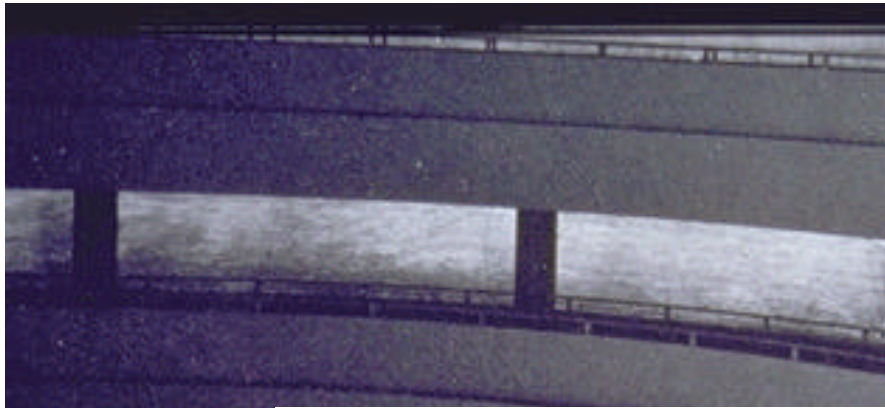
Ultimately, though strategic design
I want design to be bolder
and to be encouraged to be bolder.
Don't be a Swan, be an Edison!

Rest is backup