Embracing Entrepreneurialism (?) : The Diversification of Academe

Tim Vorley

Presentation Overview

- Where We Are and How We Got Here…

- Entrepreneurialism & HE

- Organisational Change in HE

- Reflecting on Responses

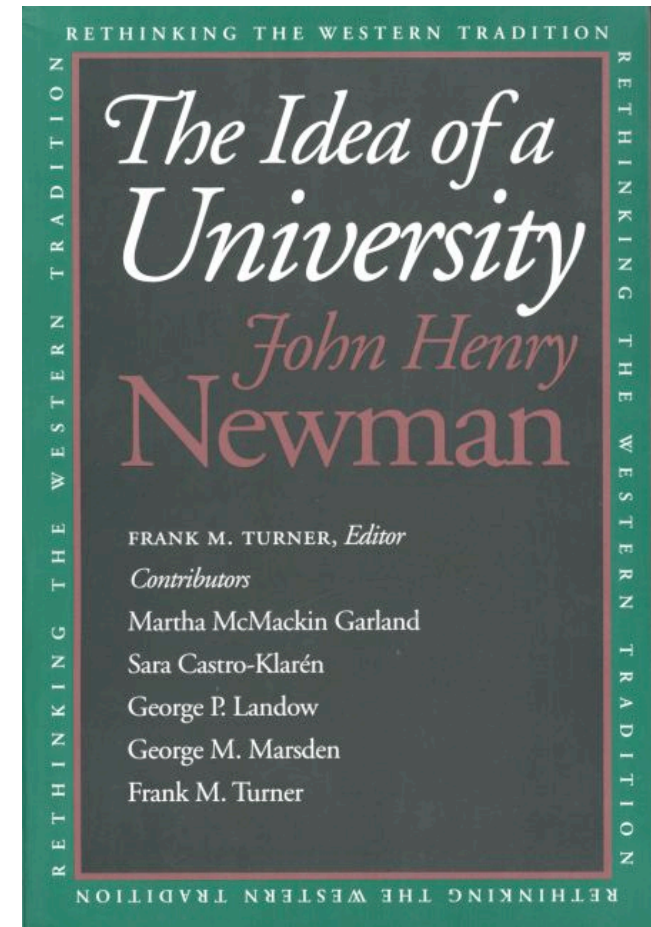# An Abridged History of Higher Education

Academic Epochs

- Jencks & Riesman/Etzkowitz Academic Revolutions

- Kerr (1963) identified the 'Multi-versity' – a new imperative.

- Universities are a 'least cost' form of state apparatus (Foucault, 1971)

2ND Revolution

1ST Revolution

Third Mission

Research
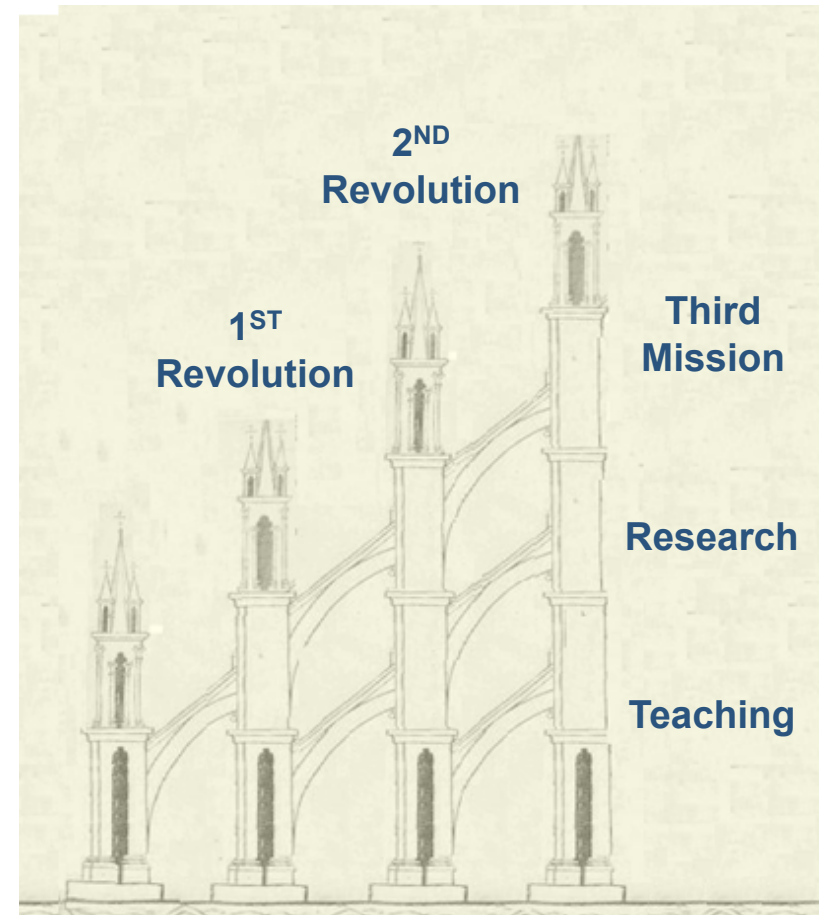
Teaching

From Teaching Institutions…

- Newman (1852) - the role of the university is teaching universal knowledge, with a focus on intellectual as opposed to moral teachings

- Universities were training centers for the clergy (Jewell, 1998), but also promoted the study of liberal arts and pure science

RETHINKING THE WESTERN TRADITION

The Idea of a University
John Henry
Newman

FRANK M. TURNER, *Editor*

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... To Teaching and Research Institutions…

- Humboldt's vision of the university was as a teaching and research institution with a balance between the two spheres (Mittelstrass, 2004)

- '*Bildung durch Wissenschaft*' or 'Learning based on Scholarship'.

- The coupling of teaching and research has become conventional wisdom – research-led teaching.

... To Enterprising Institutions.

- Universities have a long association of engaging with the economy and society but this has become more pronounced and formalised.

- Contention as to whether economic engagement undermines basic research (*Ziman, 1994*); is detrimental to research funding (*Geuna, 1991*); hampers free research (*Berens and Gray, 2001*); or is in danger of turning the university into a corporate enterprise (*Aronowitz, 2000*)

- There is some anecdotal evidence that economic and societal engagement supports this new mission

The HE/Research Landscape… in Hamburg
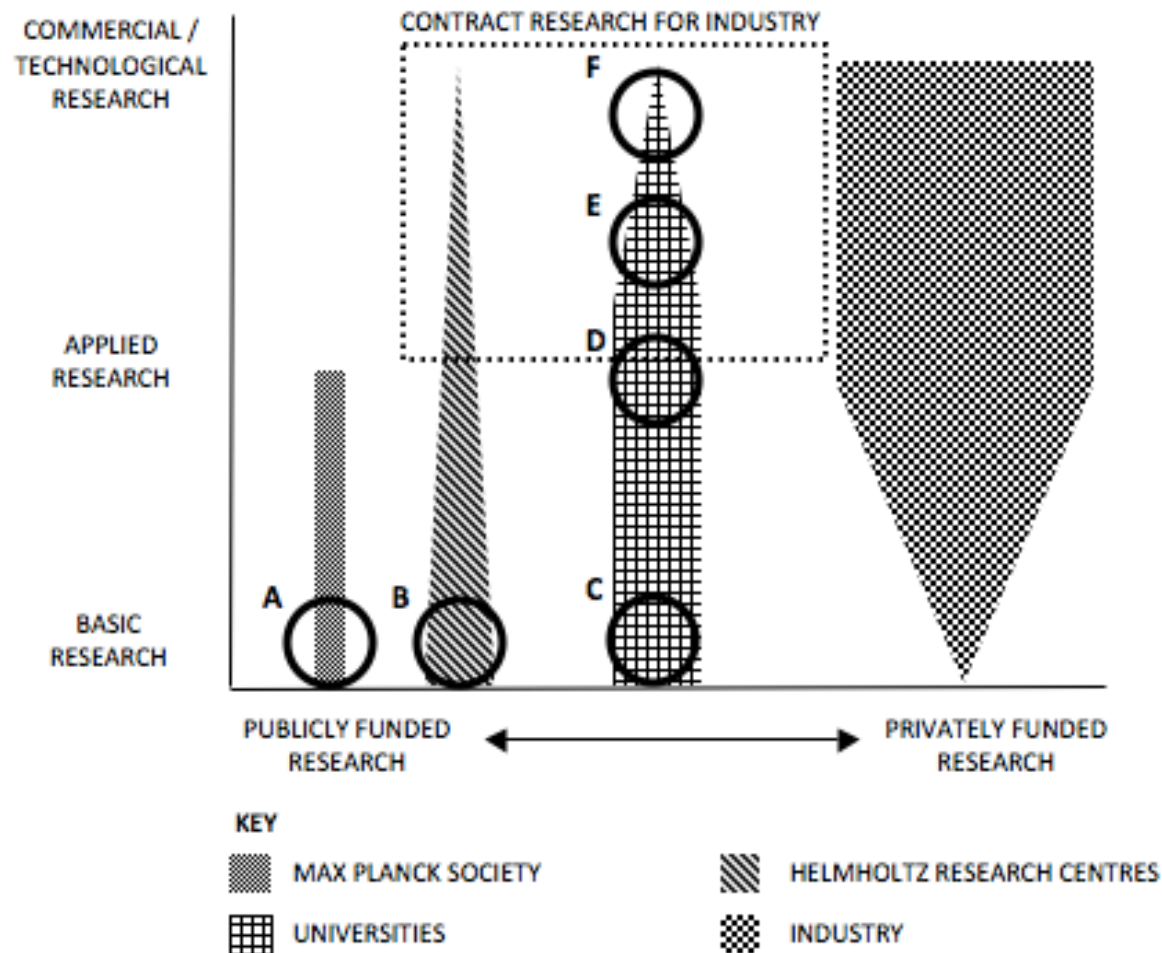
The HE Landscape… in Toulouse

- University of Toulouse split into three separate universities and numerous specialised institutions of higher education

Université Toulouse 1 Capitole - UT1

Law & Business

Law
Accounting
Business
Economics
Political Science

Université Toulouse II - Le Mirail

Arts & Humanities

Arts	Philosophy
Archeology	Linguistics
History	Psychology
Literature	Sociology
Music	Languages
Geography	

Université Toulouse III - Paul Sabatier

Technology & Science

Science	Biology
Physics	Technology
Mathematics	Medicine
Computer science	Dentistry

The HE Landscape… in the UK

COMMERCIAL /
TECHNOLOGICAL
RESEARCH

APPLIED
RESEARCH

BASIC
RESEARCH

PUBLICLY FUNDED
RESEARCH ←——————→ PRIVATELY FUNDED
RESEARCH

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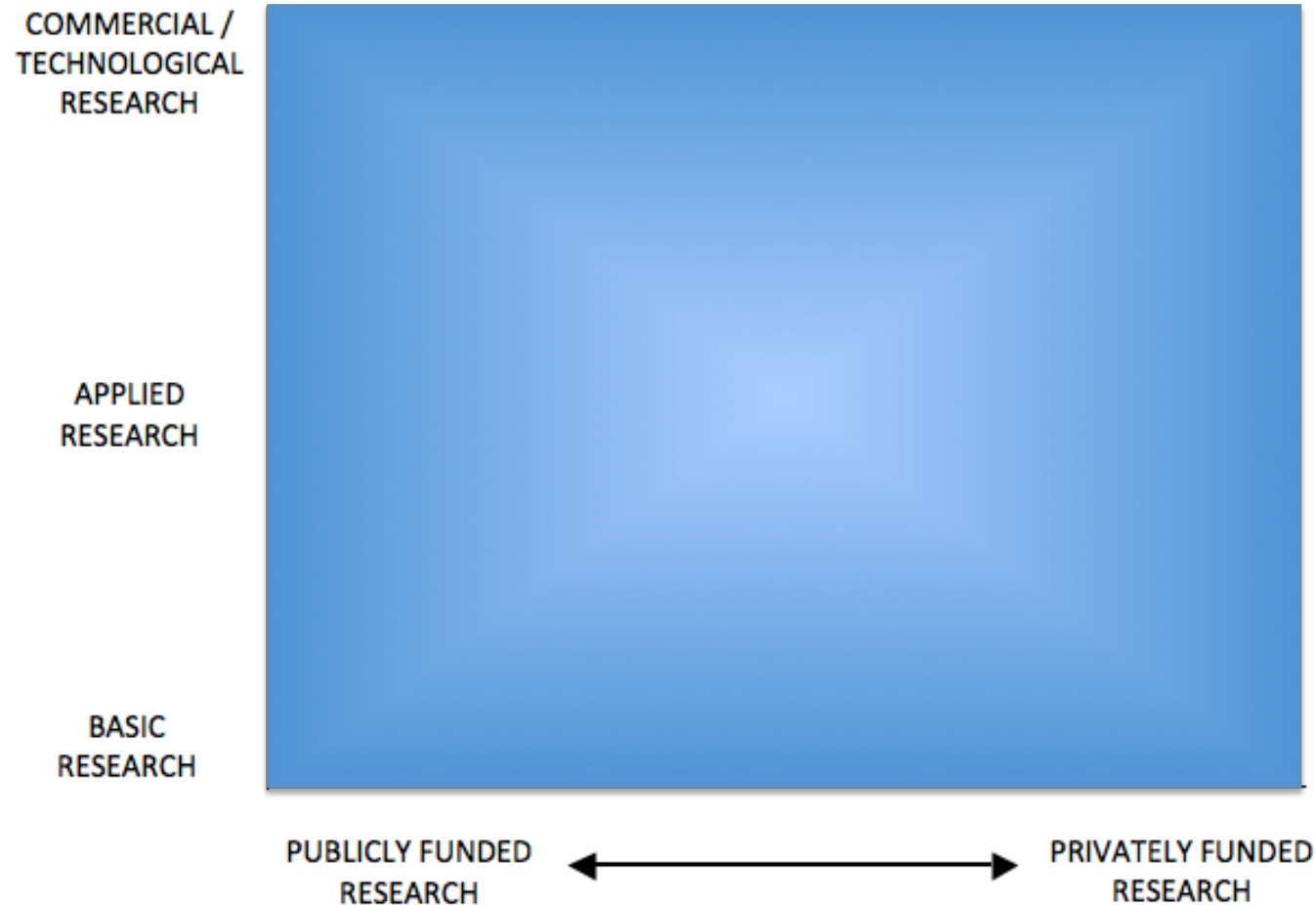
The HE Landscape… in the UK

Agendas & Expectations of HE

Diagram with two axes: vertical axis from "Societal/employer" (top) to "Academic" (bottom), horizontal axis from "Teaching" (left) to "Research" (right). Four quadrants:

Top-left (Societal/employer — Teaching):
- Widening participation/access
- Sector skills
- Graduate employability
- Employer engagement and HE targets
- Professional qualifications
- Life long learning
- Workforce development
- Foundation degrees

Top-right (Societal/employer — Research):
- Economic growth
- Business competitiveness
- Knowledge transfer
- IP exploitation/spinout companies
- Regional development and regeneration

Bottom-left (Academic — Teaching):
- Graduates
- Post graduates
- Higher Education targets
- Learning programmes
- Intellectual capital

Bottom-right (Academic — Research):
- Academic research
- International research base
- Discipline advancement
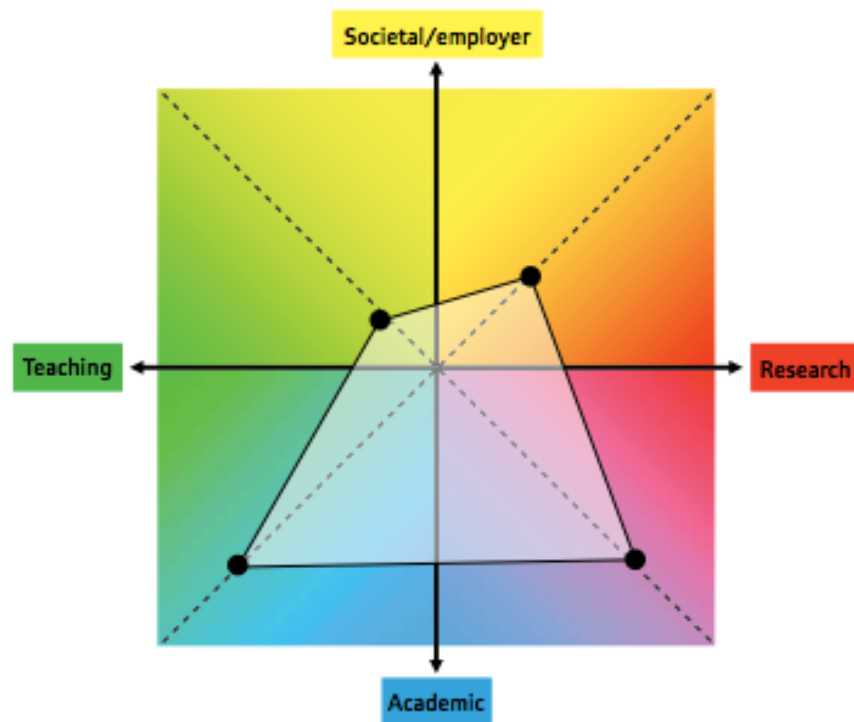- New knowledge
- World class knowledge base

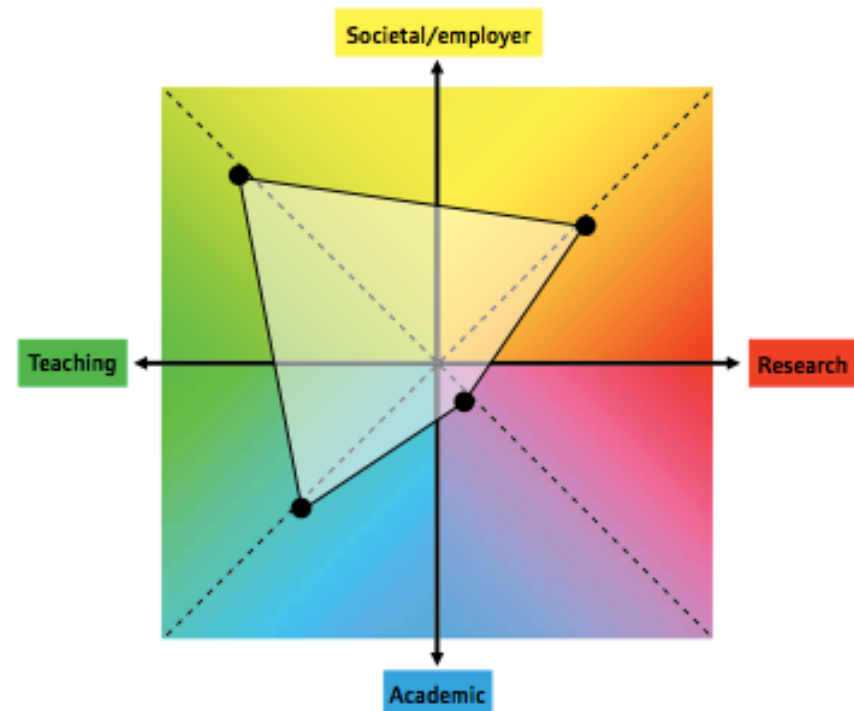UNIVERSITY OF CAMBRIDGE

Agendas & Expectations of HE

Research Intensive University?

Post 1992 University?

Politics and Universities in the UK

1960s and 1970s

Government: You will expand!
Universities: Oh no we won't!
Government: Oh yes you will, or we shall give all the money to the colleges of advanced technology (CATs) and the new universities!
Universities: Oh yes we will!

1981 to 1988

Government: You will stop expanding!
Universities: Oh no we won't!
Government: Oh yes you will, or we shall fine you for every student over quota who you admit
Universities: Oh yes we will!

1988 to 1992

Government: You will expand!
Universities: Oh no we won't!
Government: Oh yes you will, or we shall give the extra money to the polytechnics!
Universities: Oh yes we will

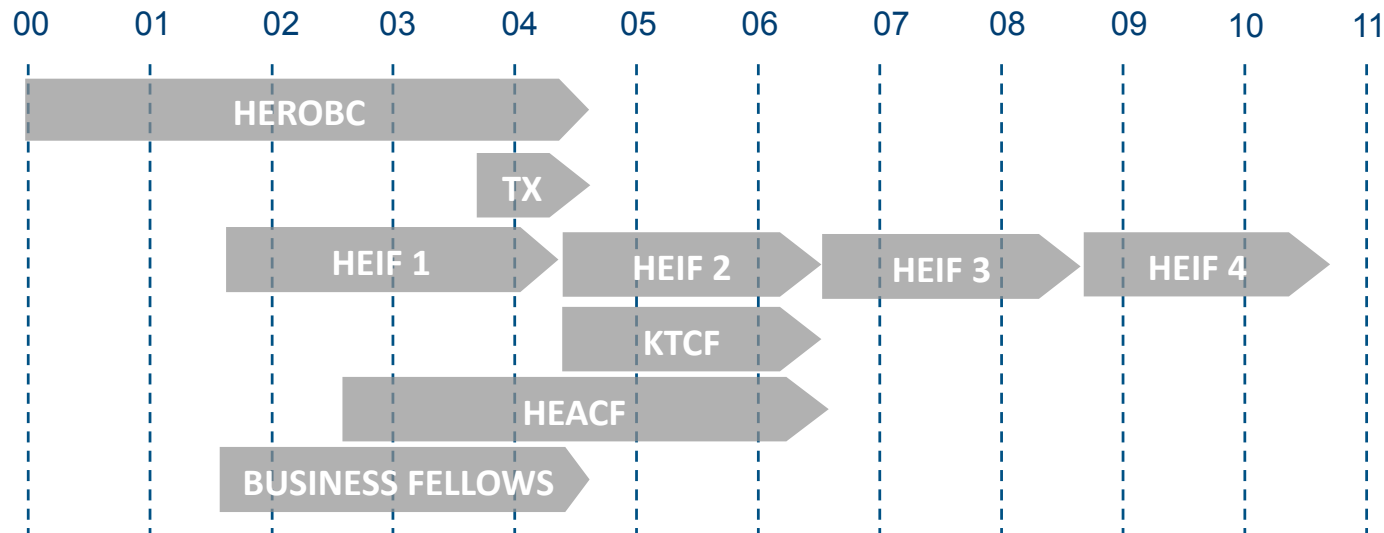**Government/University Dialogue**
Sutherland (1994: 1-2)

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Politics and Universities in the UK

- Universities used to engineer social, economic and political objectives (Readings, 1996)

- Higher education has become a renewed focus of public policy (Godin and Gingras, 2000; Mawson, 2007)

- Importance of universities to KBE is emphasized by Government policy (Delanty, 2001)

BIS | Department for Business Innovation & Skills

HIGHER AMBITIONS

The future of universities in a knowledge economy

Building Britain's Future

Financing Change

- Significance of funding on institutional strategies (Benner and Sandström, 2000)

- Strong economic focus has been a product of government funding (Goddard and Puukka, 2008)

Academia and Economy

INSTITUTION \ FUNCTION	SCIENTIFIC	ECONOMIC
PUBLIC	CONTEMPORARY UNIVERSITY	
PRIVATE	INDUSTRIAL LABS	INDUSTRY

- Defined societal roles… then 'business has become more academic as academe has become more business orientated' (Thrift, 1997)

- Universities power the knowledge economy in the same way that electricity powered the industrial economy (Mote, 2000)

Conceptualising Universities

- Abstracting a fuzzy concept…

Model	Characteristics
Academic Capitalism (Slaughter and Leslie)	Market and market-like behaviour of universities Consulting, licensing, and the creation of spin-offs
Enterprise University (Marginson & Considine)	New orthodoxy of business and income generation Cultural shift in governance/management
Entrepreneurial University (Etzkowitz, Clark)	Introduced the market into the heart of academy Emergence of universities as economic actors
Corporate University (Aronowitz)	Exposure of the university to market forces Teaching and research displaced by business goals

Universities and Politics

- Mautner (2005) describes the 'entrepreneurial university' as a buzzword popularised within academic literature and political policy

- Universities provide highly skilled labour, expert knowledge, and scientific advances/technological innovation.

- Vince Cable's ambition to establish "A highly skilled enterprise based entrepreneurial economy"

Entrepreneurship, Entrepreneurialism and Higher Education

What Is An Entrepreneur?

Types of Entrepreneur

The Artist

Reserved but highly creative type

The Superstar

Charismatic entrepreneur

The Advisor

High level of assistance/service

The Analyst

Systematically fixes problems

The Improver

Aims to improve the world

The Fireball

An optimistic life-energizing venture

The Hero

An archetypal business leader

The Healer

A nurturing/harmonious entrepreneur

The Visionary

Based on a future vision

Character Traits

- A strong predisposition to be your own boss
- High energy
- Ability to inspire and energize others
- Strong willed
- Ability to learn from failures
- Devotes a disproportionate time to work
- Fiercely competitive
- May lack some business skills
- A "never, never, never quit" attitude
- A willingness to risk money and security
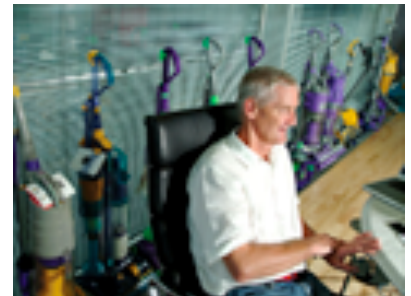
Academic Entrepreneurs(hip)

- Faculty as a new breed of (academic) entrepreneurs (Etzkowitz, 1983; Louis, 1989)

- Scott Shane makes reference to the concept in relation to spin-outs but can include a broad range of activities

- Academic entrepreneurs are central to the discovery and exploitation of their work
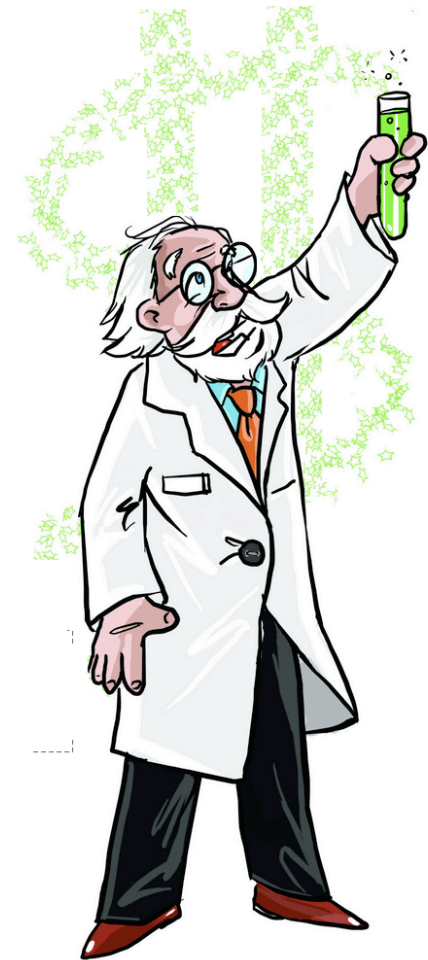
University Entrepreneurship

- Yusof and Jain (2009) refer to 'university-level entrepreneurship'

- Involving other actors in exploiting academic inventions and innovations – i.e. TTOs (Shane and Stuart, 2002)

- Institutionalization of the entrepreneurial process

- Debates of technology transfer and knowledge exchange

- Corporate entrepreneurs/intrapreneurs

Entrepreneurialism in HE

- An institutional and individual agenda

- Stimulating external collaboration

- Reinforces (teaching and research) performance

- Attracts additional resources

BUT…

- Not simply defined as economic in nature – new activities, services, and ways of responding to markets

The Dawn of the Third Mission

- Narrowly conceived in terms of knowledge or technology transfer – licensing and spin out firms (Hackett & Dilts, 2007)

- Emphasises the positive impacts of deeper socio-economic engagement from HEIs

- Broadly defined as everything outside traditional teaching and research (Jongbloed et al., 2008).

- Encompasses a wide range of activities involving the generation, use, application and exploitation of knowledge and other university capabilities

Göktepe's Transfer Mechanisms

Set-1 Generic UITT Mechanisms

- Licensing of university patents to companies
- Creation of Spin-out Companies

Set-2 Generic UITT Mechanisms

- Co-funding of research
- Conferences, seminars, workshops
- Scientific publications
- Continuing education for industry (sandwich programs)
- Co-supervision of PhD and MSc. Theses
- Employment of graduates
- Faculty consultancy
- Industry scientists working at universities
- Joint-labs
- Open university days
- Popular lectures
- R&D agreements/consortia
- Technology co-development
- Mobility / exchange of people
- University sabbaticals

Over-Responding to Perceived Needs?

- Research Management & Enterprise Training
- What are core competencies of universities and how do such programmes relate
- Perceptions of employers & industry

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# Organisational Changes in Higher Education

An American Legacy

- US has historically led university-industry engagement

- Most notably Genentech – a Stanford & University of California San Francisco spin-out company

The UK Experiences

- University of Oxford cited in the Lambert Report as the archetypal entrepreneurial university

- Culture of mimetic practice – i.e. science parks, TTOs etc…

- Third Mission was largely the domain of research-intensive universities with biotechnology and IT at its core

Lambert Review of
Business-University Collaboration

Final Report

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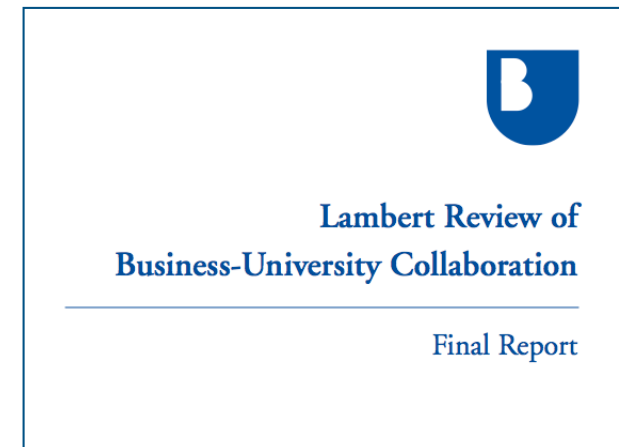
Who's Engaging Now...

- Third Mission funding and scope has evolved to become more inclusive

- A wider spectrum of more and less research-intensive and non-scientifically orientated universities engaging in third stream activities

- No longer about 'research intensity' but 'institutional specialisms'

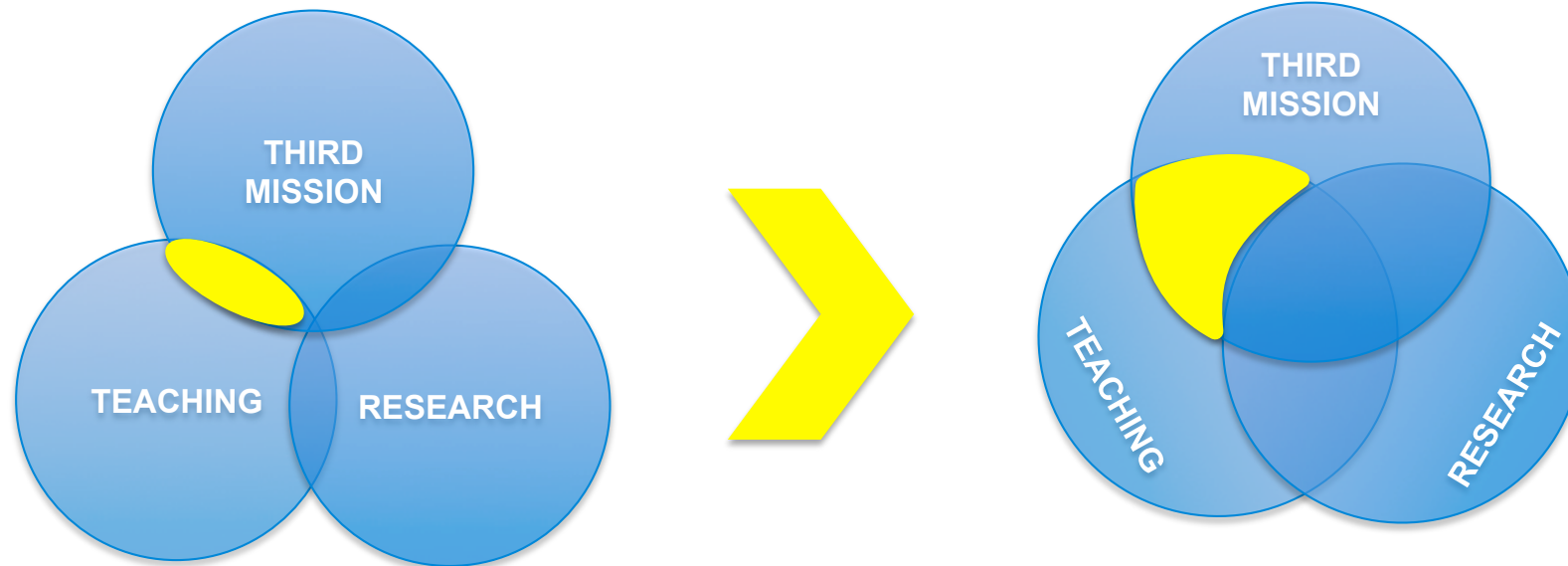- Growth of creative and cultural engagement

UK Realities

Evolving Institutions
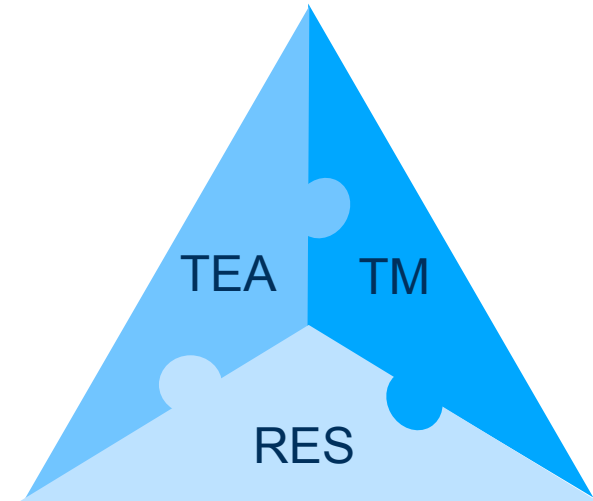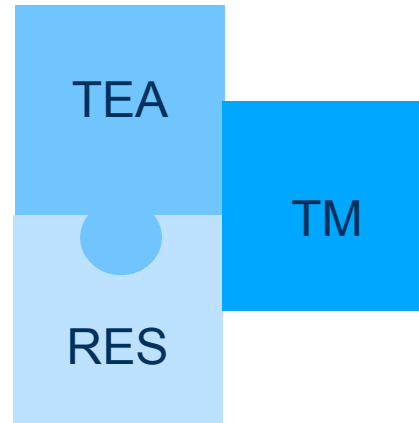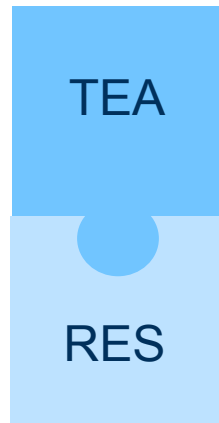
- Third Mission has infiltrated the consciousness of higher education and university management

- Beginning to gain purchase in academic cultures – new communities of practice.
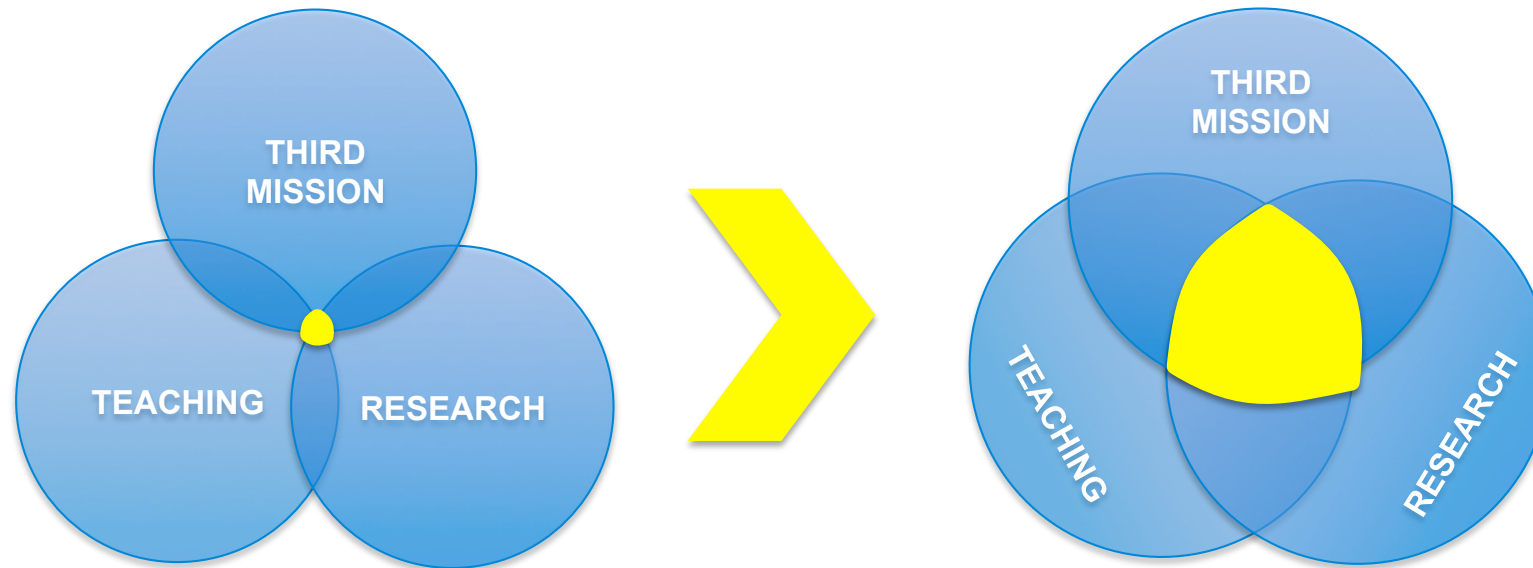
Embedding & Integrating - Teaching

- Co-supervision of PhD and MSc. Theses
- Student placements
- CPD/Life long learning

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Embedding & Integrating - Research
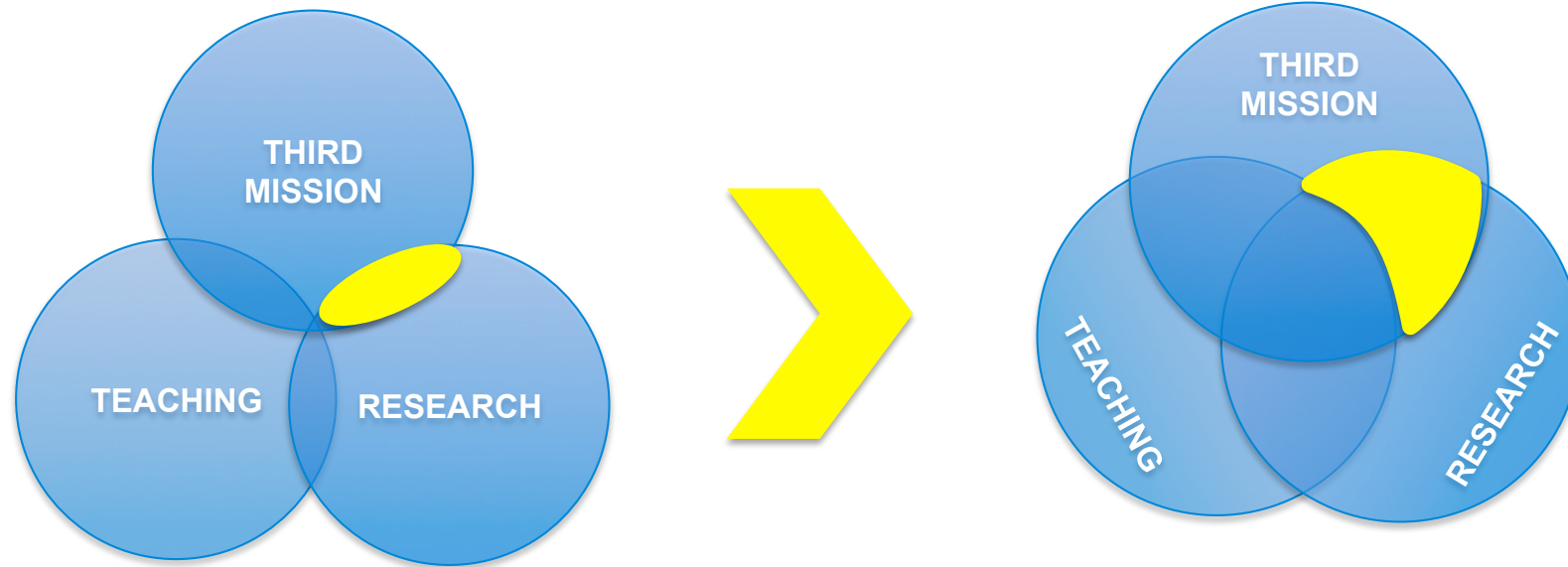
- Mobility / exchange of people
- Joint labs & co-funded research
- Industrial scientists working at universities

Embedding & Integrating – 3 Way

- Triangulating teaching, research and third stream activities should reinforce their respective dynamics
- Recursive and reciprocal development of the three Missions

Realising Change

- Challenge of reconciling the Third Mission with Teaching and Research

- Lack integration with no overarching institutional strategy (Laredo, 2007) - changing?

- Trade off between functions or missions - more than a zero-sum game?

- Unlocking opportunities of contemporary economies and societies is about organisational design

Entrepreneurial Architectures

- Architecture metaphor provides a powerful heuristic

- Depicts the relational contracts within and around organisations

- Emphasises the importance of embedding entrepreneurialism in Higher Education

CULTURE
LEADERSHIP
STRUCTURES
SYSTEMS
STRATEGY
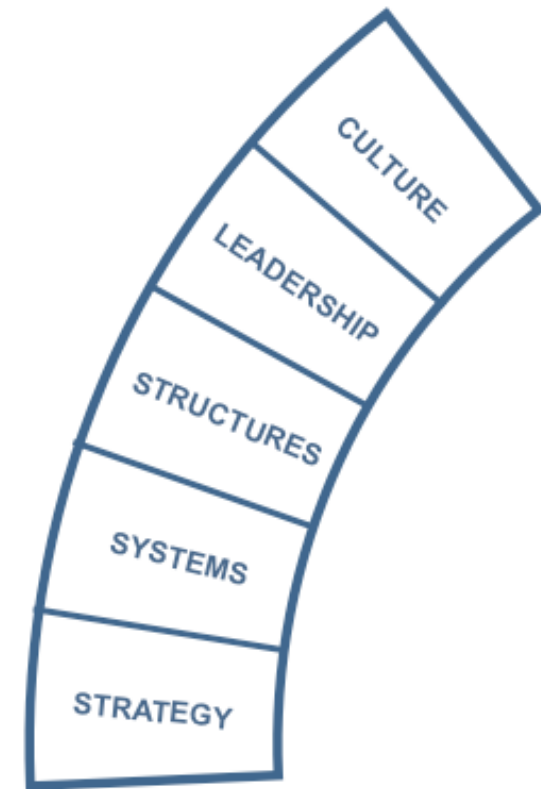
Entrepreneurial Architecture
Vorley & Nelles

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Deconstructing EA

Structures

- Institutions and existing policy has (over)emphasised the development of structures as at the core

- Structures may be the formal mechanisms of knowledge exchange and entrepreneurial structures (e.g. TTOs, technology parks, incubators, industrial liaison offices etc)

- While structures have defined the entrepreneurial university they are partially conditioned by other aspects of the EA (i.e. systems, strategies, leadership and culture.)

Deconstructing EA

Systems

- Networks and norms of communication and interaction between structures – objective orientated

- Internal systems are a measure of how embedded the Third Mission is in the university environment

Strategy

- Typically outlined in corporate plans to identify third stream goals and how these should be achieved

- Institutional strategies are instrumental in shaping structures and systems

Deconstructing EA

Leadership

- 'Steering core' or 'Entrepreneurial Architects'

- Leadership elaborates institutional strategies and is central to establishing entrepreneurial structures and systems

Culture

- Informs institutional design and drives institutional change

- Reciprocity of culture with changing structures, systems strategies, and leadership

Scaling Entrepreneurial Architectures

- Entrepreneurial Architecture developed on an institutional scale.

Nested-Architectures

The University (Macro)

The School and Department (Meso)

The Individual Academic (Micro)
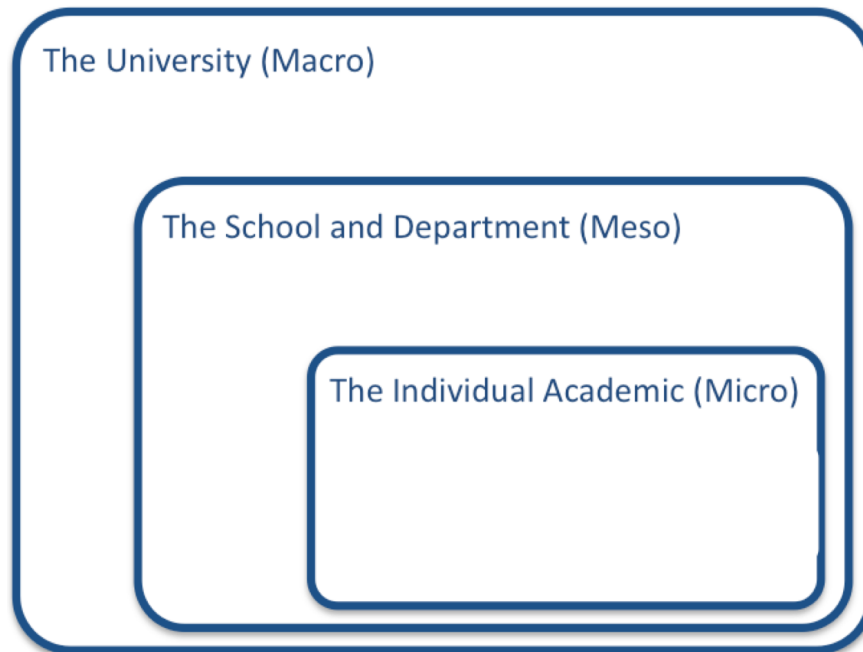
MLG & EA

- Universities apparatus of the state
- Role of universities in regional/national innovation systems
- Civic role of universities
- Coordinating & embedding

Concluding Thoughts

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Closing Observations

An institution remains functional only as long as it vitally embodies its inherent idea.... The functions the university fulfils for society must preserve an inner connection with the goals, motives, and actions of its members

(Habermas, 1987:41)

Reflecting on Habermas

- Contests this atomistic view of the university's missions.
- Recursive and reciprocal dynamic between the three missions
- Creating and preserving an 'inner connection' between missions
- Allows universities to (re)define themselves and consolidate their missions in teaching and research
- Will see them continue to respond better to the needs of students, industry and society