

# Measuring and managing impact at the University of Manchester

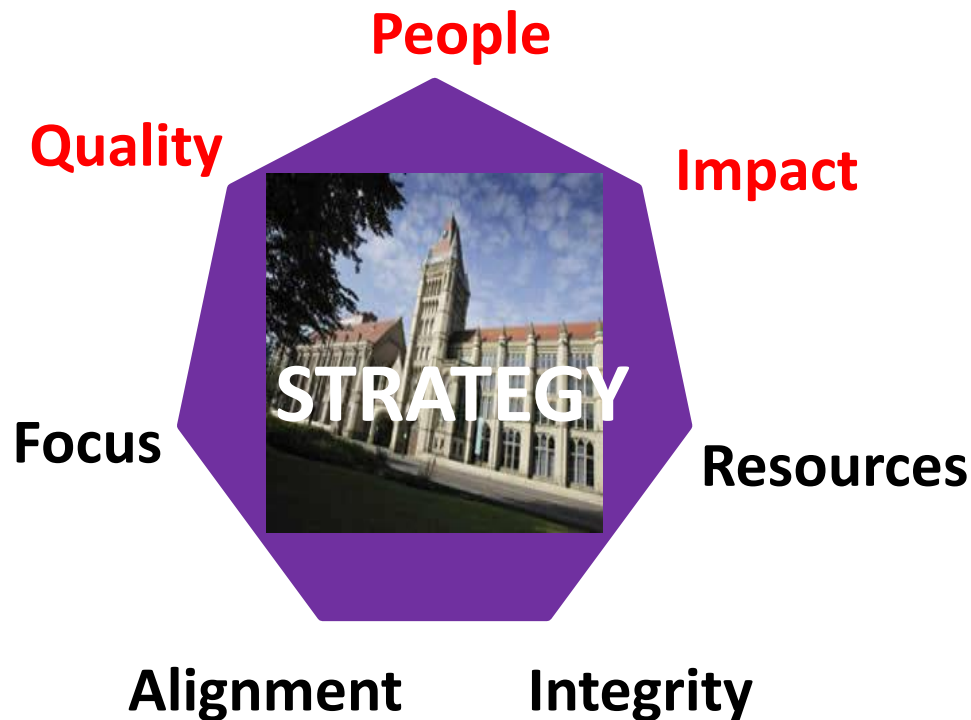
Luke Georghiou

Vice-President Research and Innovation

HEPI conference: Assessing impact, rewarding  
excellence: REF 2014 and beyond

22 November 2011

# Impact in our vision and strategy



- Our work must have an impact beyond academia and yield economic, social and cultural benefits whenever the opportunity arises
  - Key relationships
  - Manchester heritage
  - Creating and demonstrating impact
  - Commercialisation
  - Societal challenges and social responsibility

# Individual incentives

- Parity of esteem with curiosity-driven research for impact-generating, translation and knowledge transfer activities in promotion and PDR
  - applied research and development includes transfer of intellectual property into the wider economy; translation of research findings into clinical solutions; development of innovation; research and consulting relationships with companies, government departments and other public bodies; and the enrichment of the wider culture ...
- Training & development
  - from doctoral training, through new academics programme and beyond
- Outside work policy – often seeding institutional links
  - register of interests to manage potential conflicts of interests likely to arise
- Radical IP policy
  - generous share to originators : 85% to originators up to first £1m plus any re-invested into research, then 50% to originators
- Investment
  - Proof of principle and venture funds (eg UMIP Premier Fund).

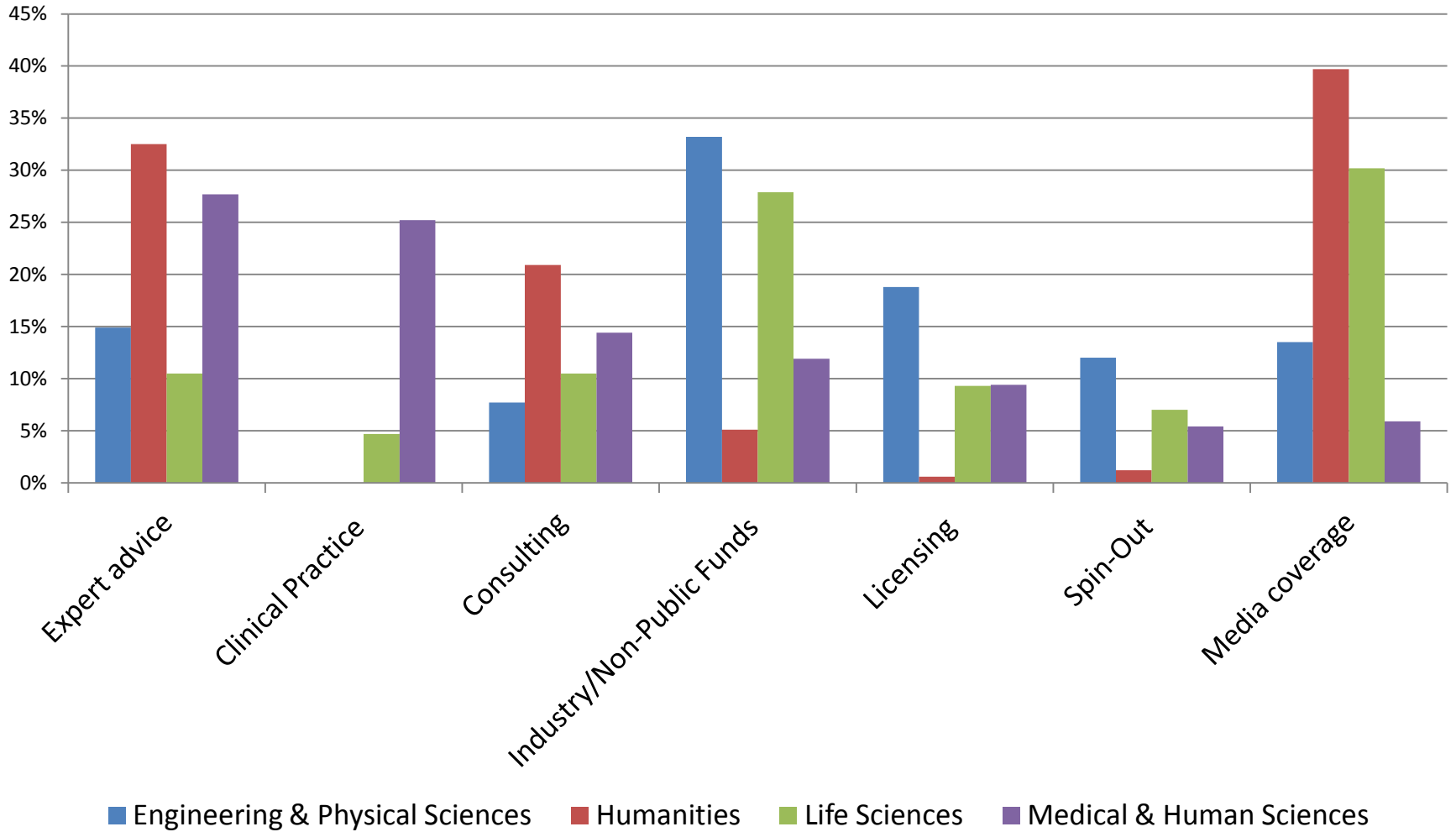
# Rolling Research Profiling Exercise

Data base of all research-active staff

(E Scholar repository) supporting annual reporting and assessment of:

- Research outputs
- Research expenditure
- Research student supervision
- Social & economic impact including patenting, licensing, creation of spin-out companies, securing venture capital investment, policy development, public engagement, social responsibility, global health *etc*

# Impact types by faculty



# Ability to deliver impact also rests in organisational competences

- Working with business and other non-academic partners requires:
  - Mutual trust and mutual benefit
  - Professional interface
  - Recognition and management of differences
- Works best in context of long-term strategic or 'broadband' relationship
  - Reduction of transaction costs
- Hidden but vital competence
  - Ability to configure multiple disciplines in seamless interdisciplinary configurations to solve business and societal challenges
  - Key rationale for critical mass and economies of scope

# Why commercialise?

- We aim to commercialise the intellectual property that we generate
- Our motives
  - To fulfil a public mission (economic and social impact) by ensuring that our work is commercialised
    - National and regional
  - To attract the best academics
    - High correlation between academic excellence and achievement of impact
  - To at least break-even on University cash invested

# Infrastructure is important

- CTF and incubator build cost c£45M state-of-the-art clean rooms for wet chemistry/biotech
- Mixed model University spin-outs, corporate & small private companies as tenants
- Very strong IP negotiation and management presence, licensing expertise
- On campus presence of venture capitalists
- Business School presence for market strategy
- Innovation Cafe and Innovation Restaurant
- Enterprise courses, conferences, staff and student business competitions and networking
- Entrepreneurs/Designer-in-Residence
- Also award-winning Science Park on 4 sites with over 100 science and knowledge-based tenants



msp  
manchester science park



# Commercialisation – how to benchmark?

## Manchester

- Research spend ❖ £190M per annum
- IP disclosures ❖ 350 per annum
- Proof of principle projects ❖ 30 per annum
- Spin-outs ❖ 5 per annum
- Licences ❖ 40 per annum
- Venture funding (3<sup>rd</sup> party) ❖ £27M per annum
- Major equity exit events ❖ 2 per annum
- Originator share ❖ 85% (50% after 1<sup>st</sup> million)
- UMI<sup>3</sup> share & license sales ❖ £3.6M per annum
- UMI<sup>3</sup> – cost ❖ £1.3M

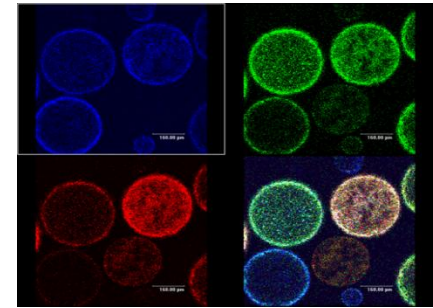
Most measures heavily dependent upon assumptions and some prone to manipulation

Our KPI choice is amount of 3<sup>rd</sup> party funding



Univ Manchester & Imperial College

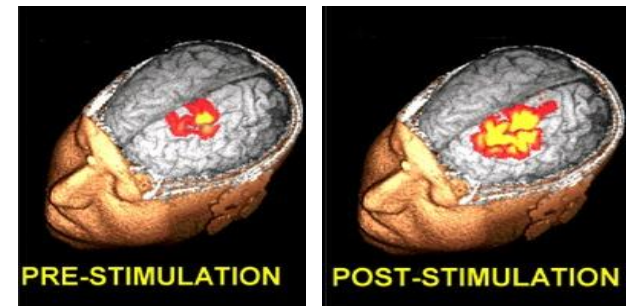
Mass-produce consistently high quality quantum dots for consumer products and biomedical applications (Prof Paul O'Brien): £4.1M private equity funds



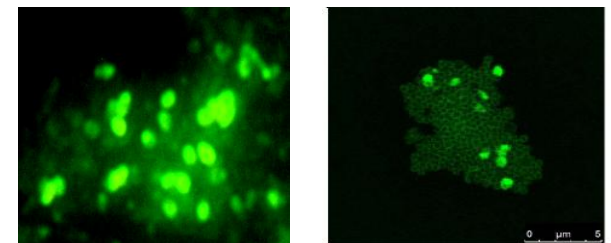
Bladder weakness, affecting 1 in 3 women - electronic tampon stimulating the pelvic floor muscles, 84% women improved in a few weeks (Prof Jackie Oldham): £5m VC



Dysphagia: affecting about 50% of stroke patients - stimulating the brain to improve swallowing (Dr Shaheen Hamdy): £6m VC



Healthcare acquired infection trace detection for hospital surfaces (Dr Harmesh Aojula): £570k NIHR SBRI, £2.5m VC



C. difficile

MRSA

# Living with REF Impact Assessment

- For UoM over 250 case-studies in play
- Some key challenges
  - Identification
    - Especially of impacts where key players departed
    - No systematic organisational memory
  - Comprehension
    - Getting academics to understand the detailed criteria
  - Verification
    - Assembling credible supporting evidence
  - Uncertainty
    - No track record on how criteria will be interpreted or how “reach and significance” translate in to a scale across hugely different cases
    - Unclear boundaries – eg is it enough to demonstrate impact on a policy or should the policy also be evaluated?
- A new stretch for modified peer review
  - But do the underlying assumptions of peer review hold?

# Closing observations

- Universities themselves are the main vector for achieving impact
  - Provide the necessary strategic integration
  - Better placed to take risks and innovate
- Public bodies should provide resources and incentives but not seek to direct or micro-manage
- The drive for impact needs to be embedded in the values of individuals but also managed effectively at all levels of the institution
- Metrics have a central role but better benchmarking is needed
- REF Impact assessment is a test and a hurdle but should not dominate what we do