The Entrepreneurial Ecosystems at the University of Manchester – HEKATE and nurturing “Enterprising Scientists”

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University of Manchester (UNIMAN)

- One of the largest research universities in the UK.
- Total number of students – 38,000; Postgraduate research – 3,700.
- 25 Nobel prize winners
Connecting Entrepreneurial education and researcher development – the UK context and background

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<td>• Almost half of doctoral graduates work outside the academia (in industry and other organisations, self-employed)</td>
<td>• Across Europe one in ten doctoral graduates go on to become ‘self-employed’ (Auriol, 2010).</td>
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<td>• The decade of development of researchers’ skills and careers (commonly known as the Roberts Agenda) - Doctoral students and post doctoral researchers - synthesis of high level knowledge, technical skills and broader ‘soft skills’</td>
<td>• almost 15% of all employed people in the UK are ‘self-employed’ (2014)</td>
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<td>• Lord Young (2014) “enterprising attitude is important amongst all people”</td>
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<td>• “Small Business Charter” – linking Business Schools and SMEs</td>
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Entrepreneurial activities and teaching at University of Manchester

• More than **100 spin-out** companies over the last 25 years
• In the last ten years venture funders have **invested £280 million in more than 30 spin-out companies** and **31 social enterprise spin-outs, staff start-ups and assisted student start-ups**.
• Generating more than **£75 million**
• Impacts on national and regional economies.
• Business competitions, student societies, enterprise teaching.

Enterprise isn't just about starting your own business. It's about identifying opportunities, creating ideas and putting them into practice.
The HEKATE team within the UNIMAN Entrepreneurial Ecosystems

- Manchester Business School
  - Manchester Institute of Innovation Research (MloIR) collaborating with
  - Manchester Enterprise Centre (MEC)
- UMI3 – Innovation company
- Career Services and alumni
- Business Engagement
- Manchester Doctoral College

- Engineering and Physical Sciences (EPS)
- Faculty of Life Sciences (FLS)
- Medical and Human Sciences (MHS)
HEKATE workshops

• Our target was **PhD and Early career Post-doctoral researchers** in STEM subjects

• Our aim was to inspire and excite the workshop participants to be “**enterprising scientists**” in their careers, be that in a university, a global multi-national enterprise (MNE), small and medium enterprise (SME), or as the founder of a start-up/spin-out.

• Collaborating with a variety of external industry organisations (university start-ups, EIRMA members, venture capital...) and internal academics, who provided “**role models**”
### Enterprising Scientists

| Academic entrepreneur - building enterprising academic career at the University e.g. University spin-outs; industry collaborations | Scientific/Tech entrepreneur – starting-up firms; working in industry, sometime between the university and industry | Intrapreneur – working in R&D/innovation within corporate organisations |
Day 1

The Enterprising Scientist
- Experiences from academia, a large corporation and a high-tech SME
- The Entrepreneurial Commercialisation of Knowledge
- Views from practitioners

Day 2

Enterprise in Career, Contexts and Practice
- Special Panel Session: The Enterprising Scientist – making a career with enterprise
- From Idea to Reality – industrial case studies (EIRMA contribution)
- Stakeholder Management
HEKATE workshops
EIRMA session contributors

**Thierry Piret** - Head of Solvay Ventures
- *Corporate venturing* - *case studies/group exercise*
  
  October 2014

**Kevin De Caluwé** – Global Innovation manager, Bekaert
- *Innovation portfolio management* – *idea development/group exercise*
  
  March 2015
The Enterprising Scientist – Making a career with enterprise in Manchester

• **Dr Farid Khan** – Med tech entrepreneur; Chief Scientific Officer, Protein Technologies

• **Dr Curtis Dobson** - Academic entrepreneur; University of Manchester/Founder, Ai2

• **Dr Veronica Sanchez Romaguera** – Enterprise lecturer; formerly senior researcher at Omic; Nanoco technologies.
Generating - Developing Values and Opportunities –
A variety of perspectives from industry and academia;
Networking in-between -

- Venture capital perspective
  Paul Strzelecki/ Nuclear Capital Partners

- Managing Tech start up
  John Nicholson/ Gentronix

- Managing R&D and HR in a large corporation
  Colin Mumme-Young/ Formerly Akzo Nobel

- Managing knowledge and innovation
  Chris Shilling/ Pharma Diagnostics NV and EIRMA

- Academic entrepreneur
  Paul Townsend/ MHS

- Making impact
  Stephen Yeates/ EPS
Perceived impacts from the two Manchester Workshops
(5- very strong; 4- strong; 3- neutral 2-weak; 1- none)
What the participants said in evaluation -

“I am more inclined towards starting a start-up company” (UNIMAN, first workshop)

“Provided in depth and reliable explanations of experiences of real-life entrepreneurs (i.e. coming from academic background) and inspiration for pursuing our own enterprising ventures” (UNIMAN, first workshop)

“not everybody can make it to an academic position, Most researchers have the mind of entrepreneur but need to be aware of their potential” (UNIMAN, first workshop)

“now I know the importance of knowing my customers, the importance of my managing my stakeholders, and the importance of planning ahead” (UNIMAN, second workshop)
What industry will gain – *Future Talents* - Comments from an industry contributor...

“It was nice to be able to represent EIRMA, and I hope that connection can continue.

Both in Manchester and Hamburg it was great to see a group of young researchers who want to learn and develop their skills; one of our agenda items at EIRMA’s programme committee .....was a topic on how to interact with Millennials with their new approaches to work.

The groups I saw at the two events show that there is a wealth of talent out there that we should be helping to develop in exactly the way HEKATE is doing.

It was an inspirational visit for me; thank you for inviting me to be part of the workshop”.
The Entrepreneurial Ecosystems – HEKATE and nurturing “Enterprising Scientists”

Lessons learnt as workshop organisers -

Relation building between HEI and industry

Institutional contexts and capacity building

Designing and delivering the workshop
Report on the Assessment of the Four Workshops in Manchester and Hamburg are Available at

SPECIAL THANKS to

- the European Commission’s Directorate General for Education and Culture (DG EAC)
- the *European Industrial Research Management Association* (EIRMA), Solvay and TechBridgeOne
- Industry contributors and workshop speakers (names acknowledged in earlier slides)
  
  - TuTech and TUHH colleagues
  
  - University of Manchester colleagues, especially Nick Clifford, Siobhan Drugan, MEC colleagues (Lynn Sheppard, Martin Henery, Veronica Sanchez Romaguera) and UMI3 (Laura Etchells)
Thanks from the Manchester HEKATE team