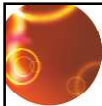


From Science to Enterprise – building and running a company

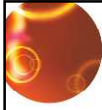
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Introduction

- Mixing theory and practice
- Dr Shailendra Vyakarnam (Shai)
- “Pracademic”
- Director of the Centre for Entrepreneurial Learning
- Co-Founder of:
 - Transitions = 21 years now
 - Tristart = from Doctoral supervision (now in second stage funding)
 - AcceleratorIndia = Getting started
 - Live The City = 3 years – building sales

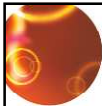
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I will try to answer the first two questions !

- Is it possible to start a business from science and technology?
- How do you transform the scientific achievements into a business?
- What are the characteristics of the entrepreneurs in the high tech sector?
- Come to meet the entrepreneur to understand your professional future and your inclination to start a business in: ICT, internet, new media, biotech, nanotech, microelectronics and green tech.

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Entrepreneurship is not a new phenomenon

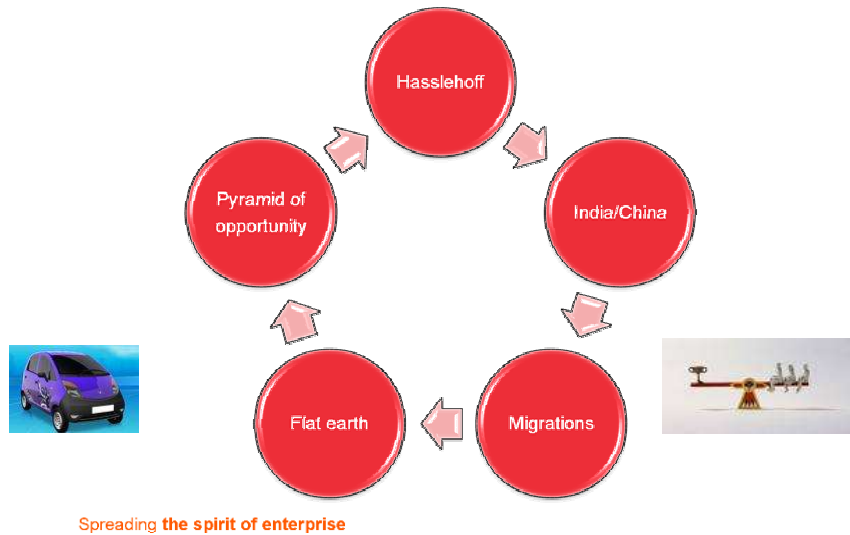
Silk
Porcelain
Gun powder
Spices



Navigation
Security
Ships
Overland travel
Trading centres
Administration
Ideas
Religions
Food sciences
Crops
Currency

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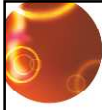
The world has changed since 1991....



A short commercial

- Practitioner lead – Centre for Entrepreneurial Learning
- Courses:
 - Enterprise Tuesday
 - For the curious – PhD, Masters ++
 - Ignite
 - For those with a technology opportunity
 - Enterprisers/Intraprisers
 - For those looking to generate ideas, build confidence – meet people
 - Emerging Technologies Entrepreneurship
 - To validate technology ideas – from Research labs
 - Advanced Diploma (Oct 09)
 - 2 year part-time – a “how to”
 - Video Book
 - www.cfel.jbs.cam.ac.uk – see resources = videos/podcasts

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Formation of CfEL

- Entrepreneurial Learning – somewhat slippery concept –
- Flurry of articles in 2005 – ET+P....
- We take it to mean the following:
- Entrepreneurial
 - Gaining an appreciation of and confidence in being able to identify opportunities and further exploit them – in other words to be or to mimic the behaviours of an entrepreneur.
 - Risk taking, innovative, proactive
 - Discovery; evaluation; exploitation
- Learning
 - To be able to continuously learn the why and how of acting in entrepreneurial ways

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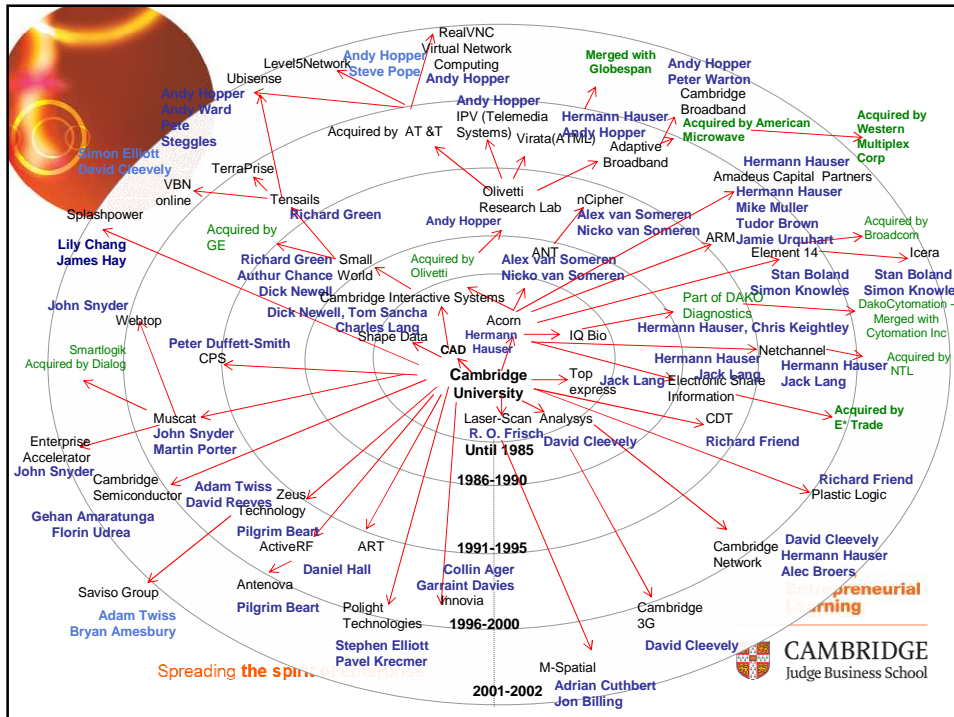
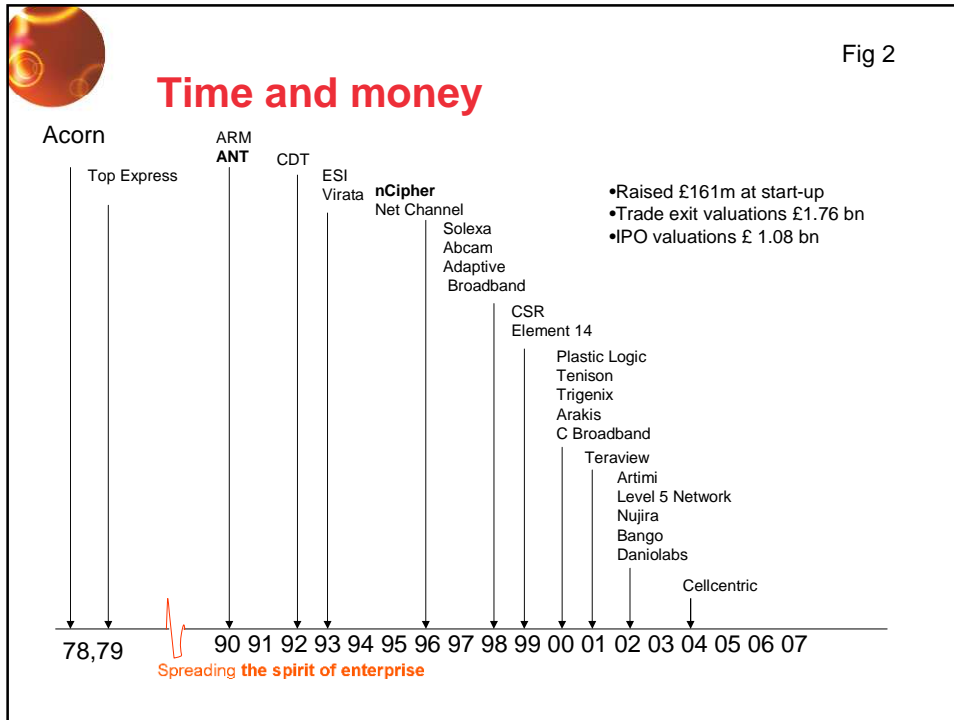


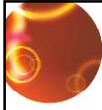
Fig 2



Technology speciation or pursuit of Opportunities?

<p style="color: red;">Applications of microprocessors</p> <p>Acorn Artimi ARM Cambridge Broadband CSR Element 14 Level 5 Networks Virata (Conexant)</p>	<p style="color: red;">Tools for mobile telecoms</p> <p>Bango Trigenix</p> <p style="color: red;">Internet trading</p> <p>ESI – e*trade Abcam</p>	<p style="color: red;">Enabling software</p> <p>ANT nCIPHER Top Express Tenison EDA</p> <p style="color: red;">Applications of Polymer Organic LEDs</p> <p>CDT Plastic Logic</p>	<p style="color: red;">Bio/pharma</p> <p>Arakis Solexa Cell Centric Danio Labs</p>
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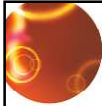
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What I have learnt from seeing, listening and doing!

- Entrepreneurship requires –
 - Creative ability to spot an opportunity and
 - The ability to validate it
 - Understand what investors look for
 - Balancing need to secure IP with being able to talk about your idea
 - Entrepreneurial Skills
 - Social; networking; presentation; lobbying;
 - Communicating the vision; getting buy-in from peers and from senior colleagues

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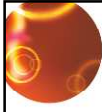


Personal attributes

- Self-belief - in the idea - its ability to make a difference and in ones own conviction of being able to make it happen
- Perception of risk - is it reputational? Financial? Relational?
- An opportunity that stimulates the motivation/intention
- Personal circumstances
- Entrepreneurial motivation

Risk of doing something? – Or risk of never having done anything?

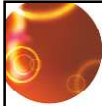
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Enabling ecosystem

- Then we need an ecosystem that is not too hostile
- Overall culture – reward and punishment
- Leadership's motivations
- Internal politics/personalities
- Capacity and resources - does the organisation have these available?
- In the country?
- Financial and legal institutions
- Reforms towards market economics – will capitalism recover?

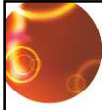
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Entrepreneurship action plan

- Signalling from the top (of the University) –
 - with resources
- Clarify boundaries – what is in and what is out
- Encourage early –
 - small victories to get into the habit
- HR policies
 - web based rules - transparent
- Education and training events
- Broaden out the network
- Need for diversity - like never before – perhaps the biggest challenge in the current climate

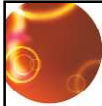
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Visit to Temples of...

- MIT, HBS and Stanford
- Key lessons –
- USA – focus on business implementation
- Europe – legitimacy of “Entrepreneurship”
- Think Big; Act fast and be fearless
- Seek forgiveness – not permission
- Fail fast
- If you have an idea – first of all find a customer – test it, check it

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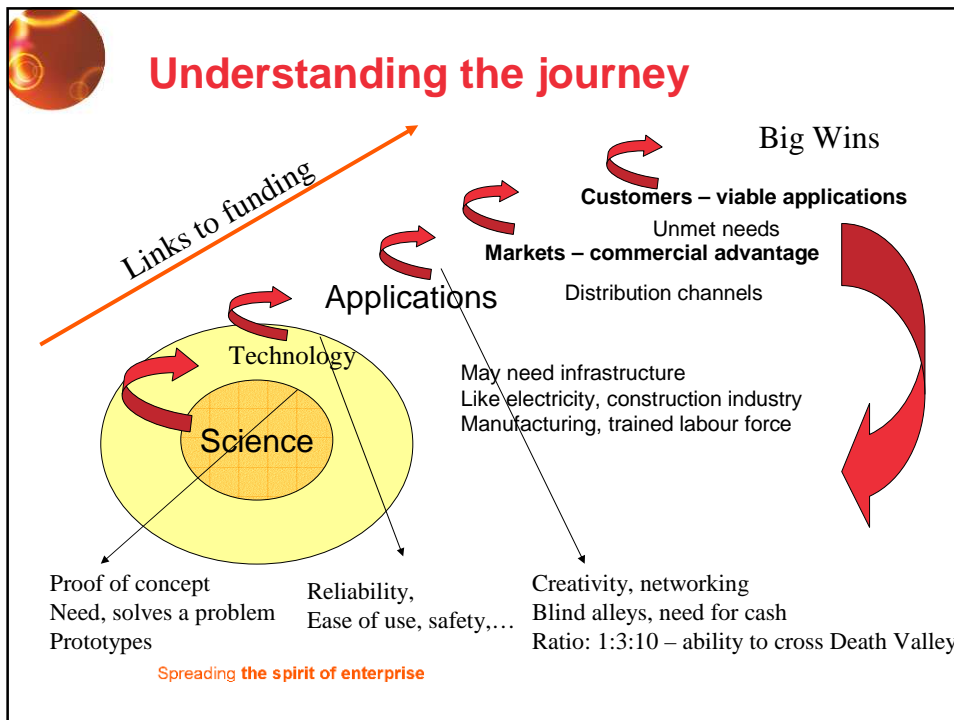
What are the drivers for innovation?

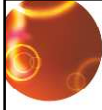


Sir Frank Whittle (left)
Dr. Hans von Ohain

Technology push or market pull....The Jet Engine story

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And finally – thank you

- S.vyakarnam@jbs.cam.ac.uk
- www.shaivyakarnam.blogspot.com
- www.cfel.jbs.cam.ac.uk
- www.transitions.co.uk

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