Enhanced Economic Prosperity from Scientific Excellence

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What is Innovation?
Innovation

• The creation and utilisation of better or more effective products, processes, services, technologies, or ideas arising directly or indirectly wholly or partly from the presence or activities of the science and research base.
• Thus, when we talk about ‘increasing innovation’ within this report, we mean increasing the level of economic benefit that derives to some extent from the science and research base.
Now that we’re all here let’s get down to business
Scotland is strong in Research

• Provides about 1% of total global peer-reviewed Scientific papers
  – In major publications
  – Cited by others
• With 0.07% of the world’s population
  – Scotland at the top of this league table
• Despite this, economically, Scotland delivers 3rd Quartile performance
Methodology for Study

• SSAC members: Ritchie, Underwood, Masters, Mathis, Hough
• 4 workshops x (approx) 15 influential technology business people and industry-connected academics
• 1 ‘solutions’ workshop reviewing results and proposing actions to be taken
• Final report under preparation
Areas for improvement

• Equipping Graduates

• Knowledge Transfer

• Funding the Risk
Equipping Graduates

“Congratulations, your days of avoiding the real world are finally over.”
Equipping Graduates

• Scotland has always had a distinctive approach to education – so we should seek to make commercial skills a key component of all Scottish degrees
  – Interdisciplinarity, team working, project management, negotiation, budgeting, costing skills
• Encourage an international approach via internships, international exchanges etc.
  – Saltire Foundation
• Commercial activity to have a bigger impact in the measurement/assessment of researchers
• Enhanced interaction, transfers and exchanges between academia and commerce
• Improve quality of Scotland’s Business Schools
  – Improved entrepreneurship
“My team has created a very innovative solution, but we’re still looking for a problem to go with it.”
Knowledge Transfer

• ‘Technology Push’ vs ‘Market Pull’
  – EPIS like programmes, Informatics Ventures
• INTERFACE should primarily serve the industrial sector, not the academic research sector
• Enterprise Fellows better promoted
  – and Industrial Fellows also encouraged
• Standardised commercialisation programmes
  – Most deals should take a Cookie-cutter approach
Funding the Risk

WALLY, WE'RE VENTURE CAPITALISTS. WE WANT TO INVEST IN YOUR WEB-BASED BUSINESS.
Funding the Risk
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WALLY, WE'RE VENTURE CAPITALISTS. WE WANT TO INVEST IN YOUR WEB-BASED BUSINESS.

I DON'T OWN A WEB-BASED BUSINESS. I'M JUST AN ENGINEER WITH A COOL PONYTAIL.

THAT'S GOOD ENOUGH FOR US. WE LIKE TO GET IN EARLY.
Oiling the Wheels – Risk Capital

• Venture Capital has moved away
  – *from* early stage start-up opportunities
  – *to* later stage post-revenue deals

• Business Angels taken up this role
  – Driven by Enterprise Investment Scheme (EIS)
  – Excellent tax breaks but must take Ordinary shares
  – Doesn’t mix well with later VC money with complex perferential share structures
Oiling the Wheels – Risk Capital

- Need a review of Scottish Investment Bank
  - Role of co-investment scheme and its implications
  - Need to cornerstone Scottish Venture Capital funds
- Review support schemes for innovation development and high value employment and public procurement.
- Need to review Risk Capital availability in Scotland
  - Maybe recreate SDF funds, e.g. for Life Sciences
- Need to reinstate Small Firms Loan Guarantee Schemes
- Review eligibility for Venture Capital Trust status
The ‘perfect’ Business
We all have to start somewhere

Bill Hewlett’s Garage