ENHANCEMENT OF THE BUSINESS ENVIRONMENT IN THE SOUTHERN MEDITERRANEAN

Cooperation between SMEs and Research Institutes & Universities

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Introduction

- The need for cooperation & collaboration between SMEs and Knowledge Providers
- Benefits of Cooperation
- Bridging the Gap
- Promoting & Supporting Cooperation
- Potential Initiatives Good Practice
- Discussion

Importance of SME Innovation

- Previous presentations have discussed importance of entrepreneurs, innovation and high potential technology based start-ups;
- Every economy needs new innovative enterprise start-ups to bring new ideas and new dynamism to markets;
- Every economy needs existing businesses to innovate in order to improve and sustain competitiveness.

Innovation in SMEs

- Critical to economic growth, quality of life, productivity etc
- Improves firm performance;
  - Increase market share jobs & growth
  - Increase competitiveness
  - Open new markets
  - Lower costs
  - Increase Profitability

Innovative SMEs

- In the US, of high volume patenting firms, SME produce 16 times more patents per employee than large firms[1] and 24% of all patents in emerging clusters;
- In the EU SMES represent 99 out of every 100 enterprises, are responsible for 2 of every 3 jobs and 58% of all value added created (SBA Annual Review);
- Smaller Firms tend to produce higher quality innovations;
- 90%+ of Innovation AND commercialised R&D happens in SMEs (< Biotech, Pharma).
- Schumpeter 1909 v 1942
- Who actually reaps the rewards is where the debate should be!!!!

1 SBA http://www.sbecouncil.org/about-us/facts-and-data/

Importance of Innovating SMEs

- Innovative start-ups and innovative SMEs therefore represent the best opportunity for Palestine to meet employment growth, economic and international trade needs;
- SMEs to innovate, need to access external knowledge sources, know-how and technology to build their own innovative capability and to reach their markets.
- This is where Universities and Research Centres and SME cooperation with them play their part

Role of Universities & Research Centres

- Key element in NIS create, store, and transfer knowledge, skills and technologies;
- Embedded in cities and regions as key components of social and economic development;
- Fundamental science which underpins product and process improvement;
- Innovation provider & enabler of new technologies; spin-offs, licensing, collaborative & contracted research;
- Suppliers of next generation managers and skills;

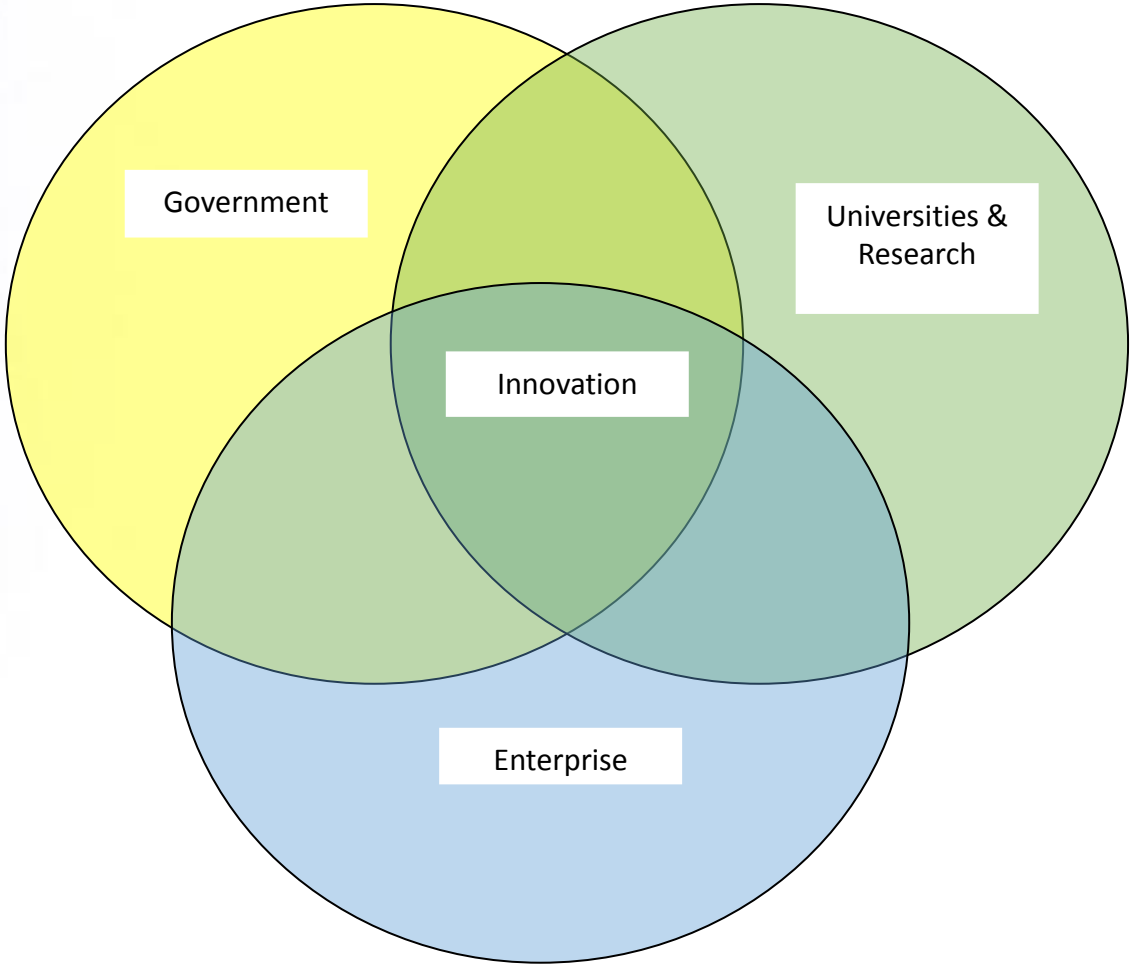
Role of Research Centres & Universities

- Play the major role in supplying trained researchers;
- Engage in fundamental, applied and collaborative research;
- Capacity to foster interdisciplinary research skills and expertise;
- Focal points for dialogue and knowledge exchange with citizens and society

Need for Cooperation

- SMEs & Institutions are important to innovation and economic growth and are fundamentally interdependent;
- An active strategy to acquire, understand, and apply new ideas that spring from research and collaboration is necessary;
- Synergies of the Triple Helix

Triple Helix



WIN WIN WIN

- SMEs access knowledge, IP, expertise, skills/education, project management, share risk with recognised national experts (firms share knowledge and train);
- Universities/Institutes access market knowledge and expertise which informs; research focus, focus of graduate education toward sectors of employment, improves commercialisation capability, source of income generation (Institutions assume entrepreneurial tasks);
- Government/State benefits from new firms/products, jobs, value add, productivity, exports & improvement in living standards. Industrial Sector Specialisation/Centres of Excellence

Impediments

- Little shared goals Tenure/Academic Award versus ROI;
- No support infrastructures, services or funding;
- Revenues of collaboration small relative University research budgets;
- Major disconnect between research and enterprise communities or understanding of each others needs
- Lack of market awareness and focus in the research process (academic/peer recognition versus ROI);
- Existing focus on big companies who have larger internal R&D resources

Drivers

- Private sector need of, and funding for, innovation activities;
- Institutions need for income and exploitation/commercialisation of research;
- Clusters & Centres of Excellence;
- Relationship drivers: Shared values & goals and recognition of benefits;
- Mutual trust & commitment;
- Creation of a broad mix of relationships spanning diverse activities and outputs.

Bridging the Gap

- Build an Innovation Policy and Framework which
  - Puts Enterprise and SMEs at the heart of innovation and recognises them as the conduit to both inform, stimulate and realise new valuable ides;
  - Initiatives that promote and communicate the value and benefits of cooperation;
  - Incentivises this cooperation horizontally and vertically;
  - Recognises and rewards success;

Types of Cooperation

- R&D Collaboration*;
- Commercialisation of R&D*;
- Entrepreneurship (Spin-Offs, Spin-Outs, JV**)
- Mobility of Academics, Mobility of Students, Mobility of Specialists **;
- Curriculum Development & Delivery***;
- Life Long Learning for Entrepreneurship & Innovation***

- * most common, ** less common, *** least common

Management of Process Needs

- Recognition and Processes for
- Conflicts
  - Interest
  - Commitment
  - Mission
- Alignment of Core Values
  - Academic freedom – Fundamental Bias
  - Value Creation – ROI, Economic Indicators
  - Transparency & Communication

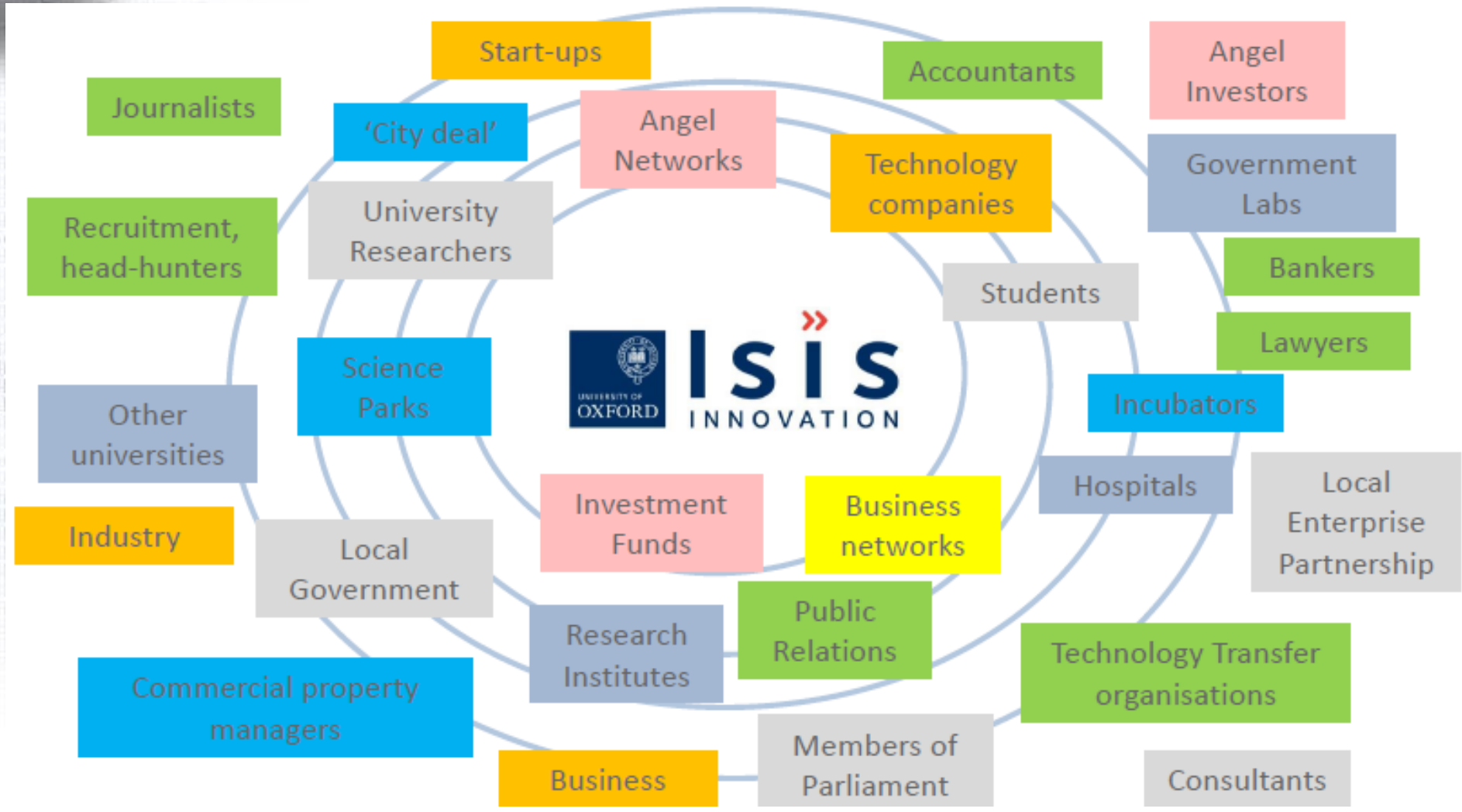
Types of Programmes

- Technology Transfer Programmes;
- Applied Research Fora & Sectoral Platforms;
- On Campus Science Parks/Incubators/Accelerators;
- Collaborative Research Grants/Loans/Equity;
- Graduate Research Programmes & Placements;
- Grants
- Tax Incentives

ISIS Oxford 2013

- Established 1988 100% Oxford University
- TT, Consulting, Incubator & investor
- 503 licenses
- 8 spin offs (100/25 years)
- £14.5m T/O £6.7M TO UNI & RESEARCHERS
- £19m in research funding

ISIS


Start-ups
Accountants
Angel Investors
Journalists
'City deal'
Angel Networks
Technology companies
Government Labs
Recruitment, head-hunters
University Researchers
Bankers
Students
Lawyers
Science Parks
ISIS INNOVATION
Incubators
Other universities
Hospitals
Local Enterprise Partnership
Industry
Investment Funds
Business networks
Local Government
Public Relations
Research Institutes
Technology Transfer organisations
Commercial property managers
Members of Parliament
Business
Consultants

ISIS

Technology Providers
- Universities
- SMEs
- Research institutes
- Large Companies

Facilitators
- Government
- Research funders
- Investors
- Science Parks

Technology Seekers
- Start-ups
- SMEs
- Large companies

Technology Transfer Office set-up and IP Policy
- Understand the needs of stakeholders, advise on IP policies and their introduction
- Support the establishment of new TTOs, their structures, processes and staffing

Technology Commercialisation Support
- Provide hands-on support to TTOs to fill resource gaps
- Market new technologies to potential collaborators, licensees, or investors
- Support out-licensing negotiations and advise on deal structures

Technology Commercialisation Training
- On-site or Oxford-based flexible training courses for University managers, TTO directors and TT managers
- Coaching and mentoring of TT practitioners

ISIS Oxford

UNIVERSITY CONGREGATION

UNIVERSITY COUNCIL

Four Academic Divisions

Intellectual Property Advisory Group

Medical Sciences Division

Maths, Physical & Life Sciences Division

Humanities Division

Social Sciences Division

Administration

Business Development Team

Business Development Team

Oxford Entrepreneurs Student Society

Begbroke Science Park

Research Services

Isis Innovation Limited

Centre for Entrepreneurship & Innovation

IMinds Flanders

- Established 2004
- 5 Flemish Universities
- 800 top researchers
- 6 key market areas
  - ICT
  - Media
  - Health
  - Energy
  - Smart Cities
  - Manufacturing

IMinds

- Results
  - 380+ local and European research projects
  - 50+ start-ups originating from the iMinds business incubation program
  - 1100+ research partners (commercial and social-profit organisations, governments;

Ireland Collaborative Programme Groups

- Industry-led Research Networks Programme (ILRP) and the Technology Centres Initiative;
- R&D Fund Collaboration Bonus
- Innovation Vouchers
- Innovation Partnership Programmes
- Technology Gateways

Technology Gateways Ireland

- Sectoral Focus 12 Gateways
- Located at Institutes of technology
  - Deliver technology solutions for Irish industry close to their market needs.
  - Are open access points for industry of all sizes.
  - Act as a portal to the wider resources in the Irish research infrastructure.
  - Have a proven track record of delivering for industry.
  - >1,000 industry projects completed since 2008 with over 450 Irish based companies.
  - The total value of these projects is in excess of €13 M with 42% of the total directly coming from industry.

Innovation Vouchers

- Innovation vouchers are a government support initiative which enable small and medium-sized businesses to buy specialist support from knowledge-based institutions to help in the development of new products, services and processes.
- They build “persistent” links between the research institutions and enterprise which benefit both entities;
- To provide an incentive for (public) knowledge institutions to tailor knowledge more specifically to demand;
- A relatively small sum of state money which has significant impact;

Innovation Vouchers

- 25 schemes throughout Europe
- Vouchers range in value from €500 in Wallonia to €25,000 in Portugal;
- Activities including applied research, product development, innovation management and in a few cases intellectual property management and establishment of e-business;
- Typical uses of an innovation voucher may include technical validation of a technology, development of a prototype, consultancy from experts or specialists or even using University /Institute facilities or equipment.
- Most schemes allow only public or semi-public institutions to be used as knowledge providers and limit these to regional or national knowledge providers;
- The schemes are simplistic in operation.

Benefits

- Improves the innovation in enterprises increasing competitiveness and productivity;
- Increases private sector spend on technology development services of universities and state research institutes;
- Creates positive and sustainable links between research and enterprise communities;
- Improves the market orientation of research institutions and researchers,
- Builds the applied technology development capacity of the State in general

Discussion

- What current collaboration programmes are working in Palestine;
- What are the barriers to increasing collaboration in Palestine;
- What sectors of research are strongest and in which institutions;
- How can the attitudes of researchers to SMEs and of SMEs for research be improved;

Thank you for your attention

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