

**Economic Development for Physicists from
Developing Countries**

27 November 2006 - 1 December 2006
Trieste - ITALY

CASE STUDY 1 AND DISCUSSION

- ***Technology Transfer to a start-up***
- ***Design & development in Scotland***
- ***Prototype manufacture in Scotland***
- ***Volume Manufacture in Asia***



Economic Development for Physicists from Developing Countries

Friday 1st December

Case study 1

Case Study 1 OUTLINE

- Business Incubator Start Up – Company 1
- DTI LINK programme
- Networking through SOA and involvement in Roadmapping
- Technology Transfer to a start-up
- Design & development in Scotland
- Prototype manufacture in Scotland
- Volume Manufacture in Asia

Incubator Start Up

- Company 1 was set up by two colleagues in a business incubator
- Set up in early 1990s based on their knowledge of Telecommunication Network Test requirements
- Optical interface to produce a specialist service
- One colleagues also interested in Head Mounted Displays

DTI Link Programme

- Interest in HMD inspired involvement in DTI Link programme with University of Edinburgh, GEC Marconi, Davin Optical
- Company 1 was SME and commercial outlet.
- DTI Link provided 50% grant funding.

Structure of Link Programme

- University of Edinburgh provided LCoS microdisplay prototypes
- GEC Marconi Military interest in HMDs and Design expertise
- Davin Optical provided Optical relay system
- Company 1 system integrators

SOA Networking & Roadmapping

- Company 1 made contacts with Industry and University communities through networking meetings held by SOA
- SOA formed team to produce a Displays Roadmap identifying strength in Scotland of Microdisplays.

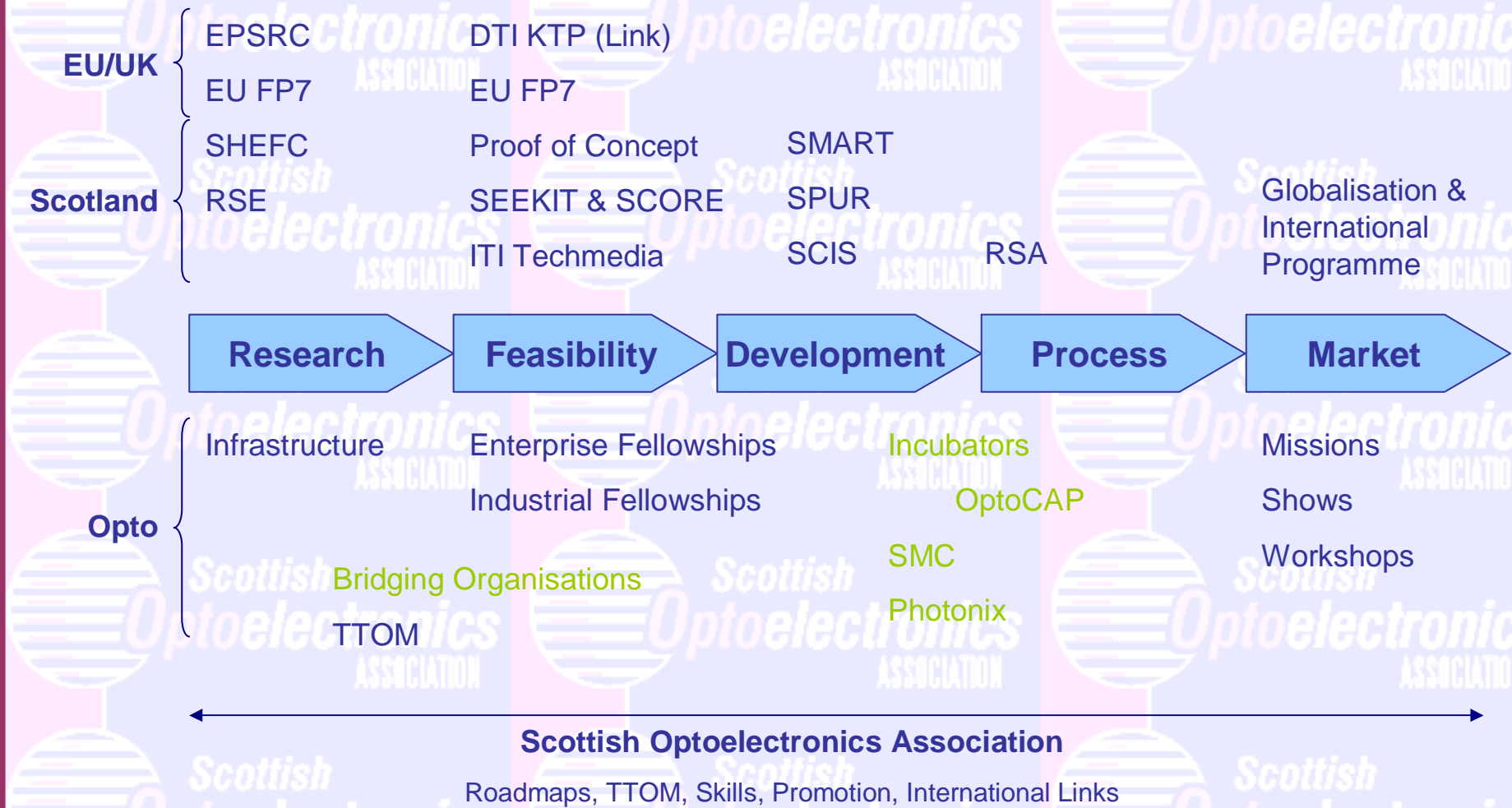
Technology Transfer phase

- On completion of DTI Link Programme Company 1 transfers LCoS Technology from University to a newly formed company set up to produce Microdisplays
- Colleagues split one remaining with company 1.
- New company procures Corporate investment

Design & Development in Scotland

- Microdisplay company used investment to take University Prototype design to a manufacturing standard.
- Continuing links with University pool of expertise
- Develop Business Plan to produce competitive product

Optoelectronics Support



International Collaboration



Joint Venture Company

- Joint venture with 2 Taiwanese companies
- Designed as vehicle to market for high volume display FLCOS technology
- 2000 sq. metre production facility in Scotland



Volume Manufacture in Taiwan

- Capitalise on Strengths
 - Scotland's Strength in Innovation, R&D
 - Taiwan's strength of design for manufacture, capital investment and supply chain