

## SCOTTISH SPIN OUTS<sup>1</sup>

### Numbers do not tell the whole story...

Since 1997, there have been **200 spin outs from Scottish Universities**, employing a total of 3000 people.

However, 30% are no longer trading and 55% employ fewer than 10 people. Even the more successful companies have taken at least 10 years to realise their potential, much longer than the typical VC exit horizon of 5 years. Examples include Axis Shield and Wolfson Microelectronics from the University of Dundee and University of Edinburgh respectively.

### ...But angels keep faith

In 2007, Braveheart Investment invested **£3 million across 12 companies** and Archangels Informal Investment invested **£8.4 million in 15 companies**, keeping in mind a longer term view for their exit strategies.

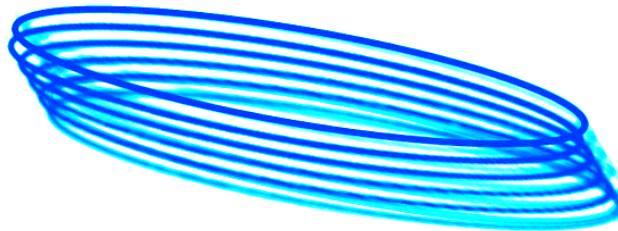
However, with the credit squeeze in 07/08, £50 million is the minimum market capitalisation expected for an IPO, according to John Waddell, chief executive at Archangels.

### What next?

Securing **funding, incomplete technology** and **strong management** are the main problem areas for spin outs. Also, **lack of clear commercial propositions (specific target markets)**, adds significantly to the risk burden of even the most innovative of research.

Closer relationships between VC and angel capital groups and striking the right balance between spreading resources thinly to support as many spin outs as possible and focusing on a select few is the way forward.

**PARAGISE:** *Striking the right balance is easier if intelligence and commercial development services are more affordable, and readily and quickly available. Paragise is building close links with HEIs to work on a wide variety of IP at significantly lower costs and at reduced timescales of a few months. Inspiring business confidence in academics is a key priority.*



---

<sup>1</sup> "Angels less likely to spread wings over academia", 7<sup>th</sup> July 2008, [http://www.ft.com/cms/s/0/c18f3232-4bc0-11dd-a490-000077b07658.html?nclick\\_check=1](http://www.ft.com/cms/s/0/c18f3232-4bc0-11dd-a490-000077b07658.html?nclick_check=1)

## INNOVATION activity at Scottish HEIs<sup>2</sup>

**42% of R&D** in Scotland is in HEIs.

Scottish expenditure on Higher Education R&D as a % of GDP is highest amongst OECD countries at 0.64%, lacking behind only Canada (0.69%), Sweden (0.88%), and Finland (0.67%).

New patent applications at HEIs have been growing at a rate of 25% annually since 2000.

At any given time, there are about **150+ marketable university intellectual properties** at the 13 major Scottish Universities (University-technology.com)

***PARAGISE:** The high proportionate expenditure on R&D in HEIs reflects a strong commitment by the Scottish Government to promote and retain world class research in Scotland. However, majority of the 'less exciting' innovations by academics are unable to access angel funding or focused commercial development support due to increasing competition and lack of human resources at university KT offices. Innovation is booming, as evident by the high growth in patent applications but support must also grow every step of the way. Paragise is working towards training recent graduates with the right blend of entrepreneurial skills and global mindset to improve the success rate of IP commercialisation at HEIs.*

## GROWTH opportunity across Europe!

From the **36 most successful European patents** filed between 1990 and 2000, 50% came from public research institutions and the proof of principle of another 25% was made in partnership with public research institutions.

Although the patent applications filed by universities represent less than 3% of the total, they obviously have a much larger impact in terms of public benefits, which has not been recognized yet in Europe.<sup>3</sup>

***PARAGISE:** Continental Europe is set to see an explosion in university-led IP commercialisation as new legislation has been progressively passed over the last 10 years granting universities the ownership and the right to exploit any invention emerging from their institution<sup>4</sup>. The UK is now part of a level playing field, and the market will become more competitive for British universities once EU patent laws are harmonised further in the next few years. See footnote 3.*

---

<sup>2</sup> Higher Education-Business and Community Interaction Survey by Scottish Higher Education Funding Council and Scottish Executive, June 2006

<sup>3</sup> Patent Policy Statement, ProTon Europe recommends improvements to the Patent System in Europe in order to facilitate knowledge transfer from public research, <http://www.protoneurope.org/news>

<sup>4</sup> See page 35 from the DIFUSE Project Handbook, "A guide to transnational collaboration in knowledge transfer", available at [http://www.difuse-project.org/Content/download/DIFUSE\\_Handbook.pdf](http://www.difuse-project.org/Content/download/DIFUSE_Handbook.pdf) for further information.