

## **Shell Springboard – North Regional Event 2009 – 10 February**

### **Keynote address by David Sigsworth, Chairman, SEPA**

I'd like to thank Shell Springboard for inviting me to speak here tonight.

I want to take this opportunity to give you my perspective on the huge importance of innovation in mitigating or adapting to the increasing environmental pressures that we're facing.

I also want to emphasise the part that high technology companies play in strengthening our economy. That's essential both in the short term as we tackle our current economic difficulties and in the longer term to provide competitive advantage as we position ourselves for new commercial opportunities as the world emerges from recession.

I'm a great fan of Victorian entrepreneurs. Thomas Edison was a serial innovator who had big visions for the future and he pursued them relentlessly. At his Menlo Park Laboratories which many have referred to as an "inventions factory" he went so far as to systematise innovation.

I'm not intending this to be a history lesson but Edison said some amazing things about innovation. I think most of you will have heard the one about genius being one percent inspiration and ninety-nine percent perspiration.

I'm sure the participants in tonight's competition will have experienced some of that perspiration already but in the context of the presentations we've just heard, Edison said something even more significant.

Let me quote him: -

"Anything that won't sell I don't want to invent. Its sale is proof of utility and utility is success". I think that's quite profound and I agree wholeheartedly with Edison that success in the marketplace is the acid test of any innovation. And it's what tonight is all about. The judges are being asked to make a call on the business potential of these six exciting concepts.

When I say exciting I am not exaggerating as the environmental challenges are immense and few can articulate how future targets are to be met.

In October last year The David Hume Institute held a seminar in Edinburgh to discuss the publication of a paper entitled "Reducing Carbon Emissions – the View from 2050".

This contains a collection of seventeen essays from leading figures and organisations who were asked to consider themselves as being in 2050 with the Scottish Government's 80% greenhouse gas emission reduction target having already been achieved and to set out how this came about.

The range of views is fascinating and the differences in approach tends to reinforce how much of the picture has still to be created. For me

environmental innovation is the key enabler to making that 80% reduction by 2050 a reality.

Opportunities for environmental innovation are huge but the current financial situation means they also come with some strong challenges. However, the prize is worth winning as the global trajectory of growth in the environmental and clean technology sector suggests annual investment is fast approaching the trillion dollar mark. This pace will have been interrupted by current events but it will remain one of the leading economic pacemakers.

Let me put UK growth forecasts in context. In 2004 the UK turnover of the environmental goods and services sector was estimated to be £25billion. By 2010 the turnover is projected to be £34billion and up to £64billion in 2015. Those businesses whose products are targeting the climate change challenge should be stimulated by this forecast growth!

So you'll see that through a combination of 'technology push' and 'market pull' there is a major opportunity for economic development and growth

I myself have been around this marketplace for many years and have worked with environmental innovators seeking to influence the way energy was generated, supplied and utilised.

In recent years the traditional model of electricity and gas supply being a commodity business has come under increasing challenge. A new approach is slowly emerging where Energy Service Companies help customers meet their energy needs as efficiently as possible whilst investments in local renewable and sustainable energy production systems make a significant contribution to overall energy needs.

That's the vision of government in Scotland, in the UK and Europe and now in the USA. Oh yes, the Obama factor will make a real difference!

During the period I spent with Scottish and Southern Energy I led the search for sustainable generation technologies which could be fitted in homes and embedded in communities. We were also seeking smart control and metering systems which could bring down costs and improve service and billing. These were all part of a vision for a greener and more environmentally conscious utility.

To speed up that search SSE created a ventures arm to support the innovation needed to fulfil its aspirations and it began co-investing alongside Scottish Enterprise and traditional Venture Capitalists to provide funding. I had the benefit of creating and managing those early explorations and it created an interest and market involvement that still remains with me today.

Those interests have also pushed my thinking on the role SEPA , Scotland's environmental watchdog, can play in seeking to influence the supply of environmental and clean technologies.

SEPA's work, in partnership with Scottish Enterprise and the Scottish Environmental Technologies Network is facilitating the development of an environmental technologies sector in Scotland to help meet the needs of future generations and the demanding emissions targets set by the Climate Change Bill.

The potential employment opportunities for Scotland moving towards a low-carbon economy are considerable. Based on some initial estimates we think that this could create at least 16,000 green energy jobs over the next decade.

To access that potential we must recognise that skills and imagination are fundamental when starting up a high-tech business. Our educational establishments are now responding fast to support the development of our environmental skills and knowledge base in Scotland.

For example, Dundee University, where I hold an Honorary Professorship, are now providing a post graduate degree in Renewable Energy and Environmental Modelling. And beneficiaries of those sort of courses will be in ever greater demand as the challenge of meeting environmental targets bites deeper on society.

The importance of the partnership with academia, as well as with industry, is recognised by SEPA as being essential for Scotland to realise its full potential in capturing its share of the low carbon economy. And Scotland has two core strengths that will help with that: -

The first strength lies in it being a small country with its devolved government having close links to its agencies and businesses. At the heart of this lies Scotland's ability to act quickly on the growing political and public demand to encourage "Greener" behaviour across government and across the industrial and domestic spheres.

Scotland has within its power the levers to focus the Government and public services on creating a more successful country through sustainable economic growth.

The second strength is the existing progress in key areas such as Renewable Energy, Water and Waste Treatment, Waste Management and Recycling, Sustainable Transport and Low Carbon in the Built Environment. All these areas are supported by Scottish Government and Scottish Enterprise as Priority Industries.

As I indicated before, SEPA, Scottish Enterprise - and the Scottish Environmental Technologies Network, hopefully with input from Highlands and Islands Enterprise, are working on a three year environmental and clean technology sector plan. This has the potential to grow Scotland's share of this fast moving global market place, creating wealth and jobs and extending Scotland's reputation for high-tech engineering and science skills.

In terms specific to the carbon agenda, Scotland's already in the early stages of assessing the practical challenges of large scale carbon capture and storage, and its potential to open up a new era of clean coal energy production. There are however many very real challenges ahead in this area.

We are also seeing novel small scale catalytic carbon capture systems as well as a growing sustainable transport sector.

To stimulate even more of these developments it's so important to have programmes such as the Shell Springboard initiative that support new and innovative ideas from around the UK.

In addition to my current work with SEPA I'm involved in high tech start up companies with interests in solar energy, solid oxide fuel cells, off-shore wind farm development and energy load management.

The energy load management service provided by Flextricity Ltd is one business I'm very happy to be associated with standing here tonight. This company, known as Martin Energy at that time, won the Shell Springboard North Regional event 2 years ago and went on to be a UK runner up.

As Chairman of Flextricity Ltd, I can testify to the value of these prestigious awards, not just in terms of the financial support they provided to the entrepreneurs, but also the enhanced reputation and increased business they brought to the company.

I'd like to take this opportunity to congratulate all the finalists here today and to say how impressed I've been with the quality of applications from the North Region. Each one provides an excellent example of new innovation aspiring to become an environmentally sound and commercially viable business.

Whether you are the winner tonight or not your achievements in getting to this stage are commendable and I wish you the best of luck in building a highly successful business.

In conclusion, I would like to offer all the finalists a final thought from Thomas Edison. It's about perseverance, and he said – "Our greatest weakness lies in giving up. The most certain way to succeed is to try just one more time".

Thank you.