

An innovative society

By Stephen Evans

What is innovation and how to achieve it was the theme of Luxembourg University Rector Rolf Tarrach's speech at the awards ceremony for the "Creative Young Entrepreneur of Luxembourg 2007". He said that innovation is an obligation that rich countries cannot avoid if they are to prosper in the future and part of Luxembourg's response has been the launch of a Masters in Entrepreneurship and Innovation at the University from this autumn. Tarrach highlighted six themes.

"Entrepreneurship and innovation" is a tautology

The economist Joseph Schumpeter explained how innovation is central to capitalism, with entrepreneurs being the agents of this. "Innovation is the driver of all progress," noted Tarrach "it is not a choice."

What is innovation?

Tarrach described it as "white gold; expensive metals mixed the right way". He called for "an innovation ecology" with it becoming part of the culture through education at every level: primary, secondary and university. Simple knowledge is insufficient, as brains have to be trained to think original thoughts. "Problem solving is the aim, but often innovators create a problem and then solve it."

What innovation is not

Tarrach said innovation is not the same as research and development, which boils down to the equation money plus brains equals new knowledge. "Innovation is the opposite of this. You take knowledge, make new links, feed in money and more money comes out." He argued that you need one with the other. "Japan was too dependent on research and development but the results were limited," he commented. He also decried European's suspicion of failure, saying it was the flip side of innovation. "Schools and universities need to encourage the risk of failure," he said.

The problem with innovation

He reckoned innovation is a difficult concept because one often finds things when you are not looking. For this reason, he felt it is important to not reject ideas because they are not what were expected. He alluded to the current theory of the black swan which seeks to underline the unpredictability of events and how people need to harness unintended consequences. He said innovations come in many forms: white elephants (beautiful but useless); dark horses (unforeseen winners); red herrings (which distract). "Entrepreneurs look for things they know they don't know but the unknown unknowns are the most exciting. This is why basic research is useful."

Barriers to innovation

He listed several types of red tape and red lights hindering innovation. Civil servants; national standards; lack of portability of pension funds hindering researchers' mobility; expensive patents (five times more than in the US); language is a problem - English is the way forward; mismatch between academia and industry - we need more exchanges; entrepreneurs generally don't like PhDs but they do know about research; danger of complacency with people happy without ambition; the worship of GDP (as destruction boosts GDP) - need to focus more on real value added.



Learning innovation

There is a mixture of nature and nurture to become an entrepreneur, but they will all be questioning, persistent, doubting, daring and linking. "Teachers have to support risk taking. We should tell children that it is part of life, with education driven by curiosity and problem solving."

1/ Boosting science and maths education

2/ Make a long term commitment to basic research both as a fuel for the economy and quality of life

3/ Make Luxembourg a good setting to attract the best students

Five recommendations:

4/ Invest in downstream infrastructure to help innovative companies (e.g. broadband)

5/ In the words of Alan Greenspan, if you don't solve education, nothing else matters'

"85% of US growth is due to technical change," said Tarrach who made the following recommendations:

Organised by the Young Economic Chamber of the Grand Duchy of Luxembourg, the "Creative Young Entrepreneur Luxembourg 2007" award was presented at the Arcelor Mittal HQ on 25th June 2007. First prize of a trophy and 1,500 euros was taken by Roger A. Asker of Xstream engineering, a software and consulting firm in the area of materials multi-scale modelling. Two other finalists Yves de Pril of Conostix (internet security) and Pascal Dine of CPI (matching technologies) won 1,000 euros each, and along with the winner, have been entered in the international Creative Young Entrepreneur Award competition to be held in Antalya, Turkey in November. The Luxembourg award was supported by the government, the Chamber of Commerce and several local industry players. The Young Economic Chamber meets once a month. For more details see www.cyel.lu and www.jcluxembourg.com