

Success without boundaries

Focused, well-organised collaboration between European nations holds the key to progress in R&D, suggests Dr Ted Fjällman, Project Coordinator of 'Innovation for Growth' at IVA...

Broad research partnerships require a clear vision and strong leadership, but is this fully compatible with consensus decision-making and democratic processes? A comparison of the strategies of research prioritisation in six small-to-medium-sized economies – namely Sweden, Switzerland, Finland, the Netherlands, South Korea and Taiwan – conducted in 2009 by the Royal Swedish Academy of Engineering Sciences (IVA) in collaboration with the Swedish Governmental Agency for Innovation Systems (VINNOVA), showed that with the exception of Sweden and Switzerland, all countries in the study have a science and innovation council headed by the President or the Prime Minister. Such a coordinating body sends a strong signal for key players to enter into broad collaborative R&D partnerships.

European countries are increasingly unable to compete with low cost in the global marketplace. To justify higher costs, exports must therefore include higher knowledge content, which often derives from the systems thinking co-developed by private actors, city councils and governments of all levels. To sell a systems approach, such as a public transportation system rather than buses and trains or a communications system rather than handsets, one must demonstrate the applicability of that system under different stresses encountered around the globe. Such large-scale demonstration platforms are successfully built through broad collaborative R&D partnerships on national and supranational levels with the strong support of a region willing to test the system.

Apart from providing strategic leadership at the highest political level, can the public sector help to stimulate R&D collaboration and innovation? Standardisation, such as the GSM for mobile telephony, has been a key enabler for innovation in the past, because it allows those involved to compete and collaborate at the same time. The public sector can also act to complement private competent capital for the promotion of growth in small and medium-sized enterprises (SMEs), as has been done through the incubator system in Israel – a project being discussed in several European countries.¹ Tax exemptions for R&D in SMEs are becoming more commonplace throughout Europe and for high tax countries, exemptions for specialists may be essential for attracting innovative talent.

For all single European nations, more than 95% of all R&D is carried out in other countries. The public sector does



Tax exemptions for R&D are an increasingly popular means of attracting specialists throughout Europe

have diplomatic ties that the private sector is not directly privy to, which can facilitate the knowledge transfer from other countries and spur innovation in the home country. Thus, the public sector does have an important part to play in establishing and maintaining offices in other countries, to both monitor and initiate collaborations between all kinds of actors in both countries. One model may be the Dutch Agency for International Business and Cooperation (EVD), which seems to have been able to house several foreign ministry and economic affairs ministry functions under the same organisation. This gives the attachés much more flexibility in their dealings with potential collaborators in foreign countries. It is also worth noting that most Asian countries are particularly good at using their North American expatriates for roadmapping activities back home – South Korea assembles up to 2,000 experts every year, many of which are expatriates, creating a yearly influx of new ideas and collaborative networks that can last for a lifetime.

A crucial role that the public sector cannot play is that of the independent national forum where various



By sharing infrastructures and talent, the European Union can spearhead a new age of innovation

stakeholders meet to gain understanding, learn to communicate and finally shape the visions necessary for national roadmapping. Independent fora must be sought – preferably not-for-profit organisations well connected with both the private and public sectors. It is also important that these fora are open to non-traditional thinking on innovation. The new nature of innovation² stems not only from R&D, but also from areas including design and business management. The success of both IKEA and H&M, to name two Swedish examples, is largely due to improved logistics, marketing and business models.

For Europe to meet its grand challenges, we must identify our areas of expertise, overcome cultural barriers and not be afraid to truly work across borders. Examples of such efforts are the European Space Agency and the European Strategy Forum on Research Infrastructures (ESFRI), to name only two. The European Union could agree to share not only major infrastructures for innovation demonstration, but truly share its talent as well. We can build upon the Bologna Process and enable the best national students in certain fields to study at the best European or non-European universities – independent of their national background – and ensure that there are many ways for them to return their newfound knowledge home.

However, if smaller countries want to attract the best students from all over Europe and the world, priorities must be decided. Finland, for example, took a big step in the right direction with the formation of Aalto University. President Nam Suh of the South Korean Advanced Institute for Science and Technology (KAIST) had similar advice for the development of the Swedish system: “If I

were a Swedish decision-maker,” he said in a recent interview, “I would double the spending on the Royal Institute of Technology (KTH) and Chalmers and let them focus on what they are really good at!”

The catalyst for all the above is national and European unity. In order to make a roadmap for Europe and do so in time for consensus and democratic processes to come full circle, every region must have identified their own strengths and weaknesses and discussed them at a national level. Only then can a united national delegation, headed by the highest politicians, and aided by scholars and experienced business leaders, sit down at pan-European talks to create the next generation of European roadmaps for innovation. As the old proverb says: ‘The best time to plant a tree was 20 years ago, the second best time is today.’

¹ See ‘From funding gaps to thin markets’ http://admin.bvca.co.uk/library/documents/Thin_Markets_report_-_Final.pdf

² See OECD report: www.newnatureofinnovation.org



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