Innovation Management
Increasingly Global, Open and Service-Oriented

Andrew Dearing
Helsinki
September 2006

Secular Changes in Approach

| Basic -> Applied Research -> Development | “Innovation is much more than R&D” |
| In-house processes                      | Partnerships essential             |
| Physical products                       | Growing service content            |
| Proprietary “stuff”                     | Business process design            |
| Technology as a main driver             | What is the innovation driver?     |
| Western brains                          | Brains are everywhere              |
| Western standards                       | Whose standards?                   |
| Start by selling in the West            | Which are our lead markets?        |

“Global, Open, Service-Oriented”
Roughly 3% of research is bought outside the firm – 1969 EIRMA study

Changing role of innovation networks as source of know-how

Balance between outsourced R&D and in-house capacity

Appraise, select and use “brought in” research and technical elements

Now on a global scale

Key Factors Influencing Decisions about Location of R&D

- Potential for market growth
- Availability of environments that foster the development of a high-quality work force
- Opportunities for productive collaboration between corporations and universities

Sources:
Thursby and Thursby (2006)
European Commission (2006)
Working within Networks

“...they are easy to work with”
Cesar Cesaratto, President, Nortel Enterprise Networks Europe, giving reasons why Nortel chose ST as a strategic partner.

Healthcare Sector illustrates Challenges for Europe

Global industry seeking solutions globally
- Shift of pharma R&D and product introduction from Europe

Scientific Excellence matters
- US offers quality, mass, diversity and intensity in basic, clinical, pharma and biotech research sectors

Value for Money matters
- India, Singapore and China offer high cost effectiveness in chemistry, IT, and increasingly in biology

Speed matters
- India set to lead in clinical trials through offering access to patient numbers and speed of enrolment at low cost

Public Healthcare offers scale
- European public healthcare systems should be driving innovation. This does not seem to work very well at present.
Creating an Innovative Europe
[interpreting the Aho Report]

Link European values (social, environmental, product sophistication) to innovation

Attract ‘brightest and best’ [people, firms] to base themselves in Europe

Achieve greater mobility and understanding between public and private R&D [university modernisation agenda]

Make the “Lead Market” concept work

- Technology Platforms, Joint European Technology Initiatives, Eureka, national programmes
- State Aid, IPR, procurement

Implications for Governance

Enable complex, secular change

- Sufficiently quickly, accommodating interdependencies
- Effective implementation – avoid distractions!!!

Coherent actions across whole pipeline: Education-Science-Industry-Regulation-Market

- Individually; At Interfaces
- Avoiding silos; Focus on demand side (spectre of ‘picking winners’??)

Enhance cooperation among players, establish trust, reduce uncertainty

- Pure competition-based policies may not be sufficient; public procurement; attitudes to dominant players
Implications for Governance

Understand what “global, open, service orientation” means
- e.g. Closer coupling between technical and non-technical skills
- *Not* elimination of manufacturing and engineering

Link SET initiatives to economic priorities
- How will this initiative make a difference to employment and growth
- Key role played by large companies - corporate growth matters

Strong public education and research
- Many of Europe’s universities are not good enough
- Some of Europe’s RTOs are better than we realise