



Innovation Management Increasingly Global, Open and Service-Oriented

Andrew Dearing
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Secular Changes in Approach

Basic -> Applied Research ->
Development

In-house processes

Physical products

Proprietary "stuff"

Technology as a main driver

Western brains

Western standards

Start by selling in the West

"Innovation is much more than
R&D"

Partnerships essential

Growing service content

Business process design

What is the innovation driver?

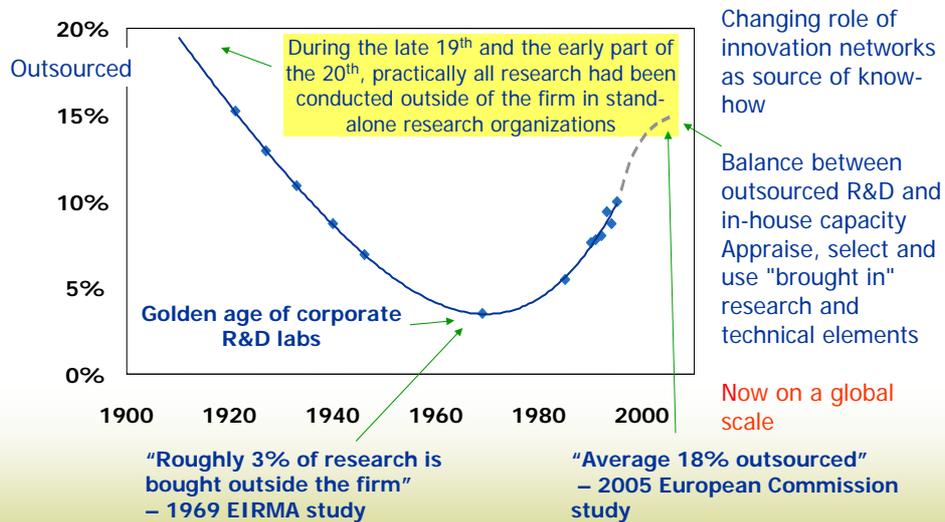
Brains are everywhere

Whose standards?

Which are our lead markets?

"Global, Open, Service-Oriented"

Trends in R&D Outsourcing



TNO/Roland Berger (2003)

Key Factors Influencing Decisions about Location of R&D

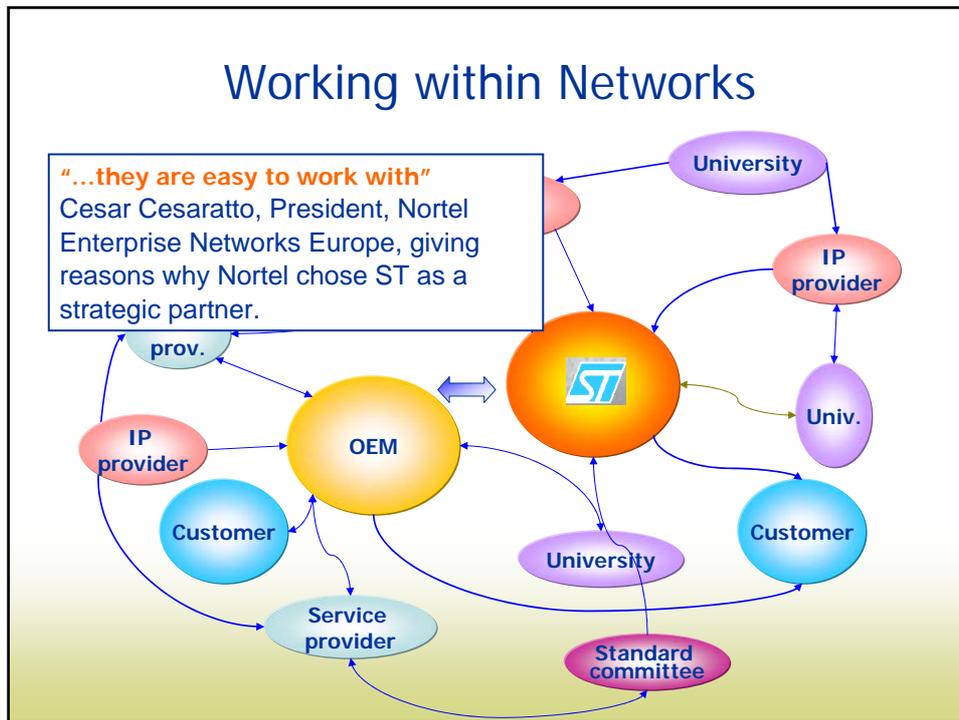
- Potential for market growth
- Availability of environments that foster the development of a high-quality work force
- Opportunities for productive collaboration between corporations and universities

Sources:

Thursby and Thursby (2006)

European Commission (2006)

Working within Networks



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