Creating an Innovative Europe

International Conference on Science and Technology for Sustainability

Global Innovation Ecosystem

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http://www.mbs.ac.uk/PREST

Policy context

- 2000 Lisbon European Council set goal of becoming by 2010
  - "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion"
- 2002 Barcelona European Council, reviewing progress towards Lisbon goal
  - agreed that investment in European R&D must be increased with the aim of approaching 3 % of GDP by 2010
  - also called for an increase of the level of business funding to two-thirds of total R&D investment
- 2004 Wim Kok group reviewed progress
  - “disappointing delivery” is due to “an overloaded agenda, poor co-ordination and conflicting priorities”. Main blame lack of political will by the member states
- 2005 Spring Council relaunches Lisbon Strategy
  - More focus on growth and employment, simplification and national ownership via national action pla

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The Mandate

- Late 2005 Summit at Hampton Court Palace concludes much still to be done
- Group of ”personalities” mandated to report to the European Commission in readiness for the 2006 Spring European Council with views, advice and recommendations on
  - ***Reinforcing EU Research and Innovation Performance in the Face of Globalisation***

Aho Group

- **Mr. Esko Aho (Chairman)** - Former Prime Minister of Finland & President of the Finnish national fund for research and development (Sitra)
- **Dr. Jozef Cornu** - Chairman of the information society technologies advisory group of the Commission (ISTAG), former President and COO of Alcatel Telecom, board member at Alcatel, KBC Group, AfgaGevaert, Barco & Arinso
- **Prof. Luke Georghiou (Rapporteur)-** Associate Dean for Research, Faculty of Humanities and PREST, Professor of Science & Technology Policy and Management, and Director of PREST, Manchester Business School - University of Manchester.
- **Prof. Antoni Subirá** - Former Catalan Government Minister of Industry, Trade & Tourism, Professor at the IESE Business School (Barcelona), Chairman of the Advisory Board of the competitiveness institute TCI, Board Member at Mercapital & Air Products.

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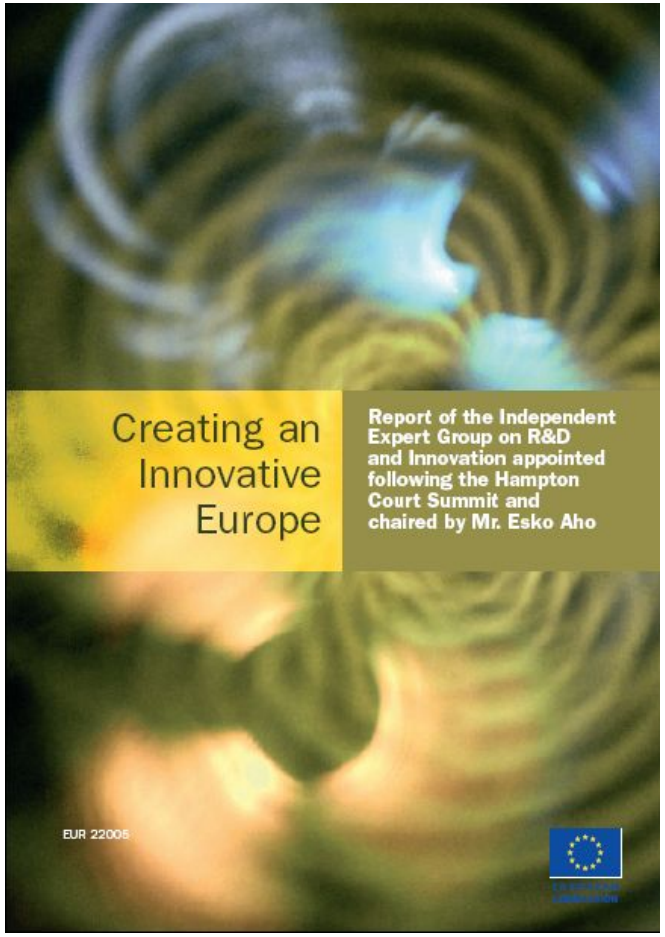
The Report – *Creating an Innovative Europe*



http://ec.europa.eu/invest-in-research/action/2006_ahogroup_en.htm

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A need for action – some hard words

- Europe must break out of structures and expectations established in the post-WW2 era which leave it today living a moderately comfortable life on slowly declining capital
- There is a large gap between:
  - the ***rhetoric*** of a political system that applauds the knowledge society

    and
  - the ***reality*** of budgetary and other priorities that have shown little shift in preparing to engage with it!

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Negative trends

- Productivity falling behind
- Failing to capitalise on the application of ICT
- Losing out as large firms globalise their R&D
- Locked into unmodernised traditional sectors and under-investing in services R&D
- Rising demographic challenges

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Radical reforms

- Putting R&D and innovation as a pillar of Lisbon Strategy is correct, but...
- ...accelerating the transition from a resource-based society to a knowledge-based society requires mobilisation of a broad range of actions beyond R&D and innovation

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A paradigm shift

- A market-led vision and a reformed social model conducive to innovation are not alternatives to European values but are essential to ensure their sustainabililty and affordability
- Europe requires a new paradigm of *mobility, flexibility* and *adaptability* to allow R&D and innovation to create the value that can support our quality of life

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Four-pronged strategy

- Simultaneous and synchronous actions are needed at all levels in:
  1. Creation of a market for innovative products and services
  2. Providing sufficient resources for R&D and innovation
  3. Improving the structural mobility of Europe, and
  4. Building positive attitudes and a culture favourable towards entrepreurship and risk taking

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Innovation-friendly market

- Ambitious lead projects - *strategic areas*
- Harmonised regulatory environment - *anticipate needs*
- Ambitious use of standards-setting power - *reorganise processes*
- Intelligent use of public procurement - *more proactive, use of new Directives, train "intelligent customers"*
- Globally competitive intellectual property rights system - *overcome the impasse*
- Fostering a culture that celebrates innovation

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Resources for R&D and innovation

- 3% as an indicator, not an end itself
- Maximising leveraging effect through
  - Supporting excellence generously
  - Smart use of R&D grants and fiscal incentives
  - Tapping the potential of philanthropy
- Increasing the productivity of R&D in Europe
- Directing 20% of structural funds (typically used for road-building etc in lagging regions) into research and innovation
- Enhancing science-industry collaboration

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New ecology of industry*

- Large firms complemented by dynamic population of smaller companies
  - Complex pattern of birth, growth, acquisition of firms enables effective selection of technologies
  - Trebling of outsourcing to private sector research houses and universities
  - Distributed innovation later termed open innovation
  - Collaborative ventures and alliances
  - Globalisation of R&D following capabilities and markets

*Coombs and Georghiou, Science Vol 296 19 April 2002 471

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New environment for universities

- Broadband academic-industry links
  - Tension between collaboration and commercialisation
- Universities also face globalisation challenge
  - Teaching in English, grid computing and e-Learning opens competition
  - Entry of new agents and managerialist culture
  - Demographic shift

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Contribution of science to the economy

- Six channels
  - Scientific discovery and publication
  - Production of trained people
  - Development of instrumentation and methods
  - Cumulative expertise available for problem-solving
  - Entry ticket to networks and access to external knowledge
  - Commercialisation and spin-offs
- All but first have clear tacit dimension and influenced by proximity

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Structural mobility

- Europe should aim to have 10% of the **research workforce** in any given year moving across the boundaries of science, industry and government;
- several recommendations are made to reverse the dramatic fall in **venture capital investment** (only €946 million raised in 2004 compared to €5,370 million in 2002 and €9,660 million in 2000);
- a strong endorsement is made of **technology platforms and clusters**
  - scale and commitment needed
  - amplify other innovation policies

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Creation of lead markets

- Demanding markets and public policy to play a significant role in e.g.
  - *e*Health
  - Pharmaceuticals
  - Energy
  - Environment
  - Security
  - Electronic Entertainment and Content
  - Transport and Logistics

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High Level Coordinators

- Principal obstacle is coordination failure
- Appoint senior individuals with
  - High standing
  - Demonstrated independence
- Orchestration of European actions
  - Commission, Member States and Regions
  - Liaise between R&D performers, regulators, users and sectoral stakeholders

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Pact for research and innovation & need for new metrics

- Much stronger commitment is needed to adapt European economy to the new paradigm of Innovative Europe - a joint process!
- Independent panel to monitor progress
- Present metrics are not geared up to deal with this Eg
  - No statistics on innovative procurement
  - Weak statistics on mobility
  - Poor understanding of the drivers of productivity in research
  - Poor understanding of the relation between science and service industries
  - Wide range of actors engaged in lead market beyond usual research stakeholders

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Impacts so far…

- European Spring Council (Summit) March 2006 – Presidency Conclusions

- "A comprehensive approach to innovation policy can be achieved by supporting markets for innovative goods and services and excellence in research in new technologies, including information and communication technologies (ICT) and eco-innovations… "
- "The European Council accordingly calls for a broad-based innovation strategy for Europe that translates investments in knowledge into products and services.

- In this context, the European Council notes the significance of the Aho report on Creating an Innovative Europe and invites the Commission to assess its recommendations and the incoming Presidency to report on progress before the end of 2006. "

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and…

- Incoming Finnish Presidency committed to make “lead markets” the main theme of EU competitiveness policy
- Strong support for report expressed by all European business associations
- Commission interpreting summit communique as mandate to implement
- Most major European policy documents now engaged in response to demand-side policy impetus

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In summary

- Battle of paradigms in progress
  - Biggest obstacle is incorrect accusation of ”picking winners”
  - Biggest danger is attachment of ”Aho brand” to existing policies without fundamental change
- A route which resonates strongly with the origins of European Union, Single Market and Common Currency
- Last words of report - ***Before it’s too late!***