Research and Innovation in Tertiary Education
Pointers for policy development

IMPROVE KNOWLEDGE DIFFUSION

- Prioritise knowledge diffusion rather than strengthening commercialisation *via* stronger intellectual property rights
- Assess the impact of technology transfer offices (TTOs) in tertiary education institutions (TEIs)
- Encourage diffusion capabilities and interactive support activities of TEIs

IMPROVE INTERACTION AND COLLABORATION BETWEEN INSTITUTIONS

- Develop collaboration between the tertiary education sector and firms and public research organisations to improve knowledge diffusion
- Ensure that all tertiary education institutions, including non-vocational TEIs, are responsive to industry needs for co-operative projects
- Ensure that small and medium-sized enterprises (SMEs) and firms from all technological sectors are considered when programmes are designed
- Consider broadening partnerships with industry to include industry representation on management boards or the development of co-operative education programmes

FOSTER NATIONAL AND INTERNATIONAL MOBILITY

- Provide incentives to facilitate inter-sectoral mobility between firms, TEIs and public research organisations
- Ease cultural and structural barriers both to attract foreign students and researchers and to retain them
- Build attractive research environments in TEIs with the availability and quality of research infrastructure

IMPROVE RESEARCH CAREER PROSPECTS

- Address the impacts of insecurity on the attractiveness of research careers
- Improve the flexibility of public sector employment policies
- Ensure that salaries remain commensurate with other professions
- Monitor the supply and demand of human resources for science and technology and improve information on supply and demand mismatches and labour market trends
- Improve policy-relevant data on human resources for science and technology (HRST)

ENSURE A VARIETY OF SKILLS FOR INNOVATION

- Combine technical skills with problem-solving capabilities and communication and management skills
- Ensure that all TEIs focus on providing their students with flexible and transferable skills and competencies

MAINTAIN ADEQUATE RESEARCH INFRASTRUCTURE

- Maintain and update regularly research infrastructure, instruments and equipment
- Establish collaborative policies across countries for the replacement of large science facilities

FOSTER INTERNATIONALISATION OF RESEARCH AND DEVELOPMENT

➤ Try to integrate national measures and instruments – such as education and training policies and infrastructure policies – and companies' globalised knowledge strategies

IMPROVE METHODS FOR SELECTION OF RESEARCH PRIORITIES

➤ Link countries' priorities of specialisation to the research and innovation system

➤ Ensure that the tertiary education sector retains sufficient diversity so it can respond to future needs in the innovation system

➤ Achieve a balance between supporting basic and applied research

➤ Align the establishment and maintenance of centres of excellence with national industry priorities and retain enough flexibility to support emerging areas

➤ Broaden criteria used in research assessments and develop a broad range of robust performance indicators to ensure that the quality of research in TEIs is maintained and enhanced

➤ Consider other evaluation mechanisms such as peer review to supplement indicators

MONITOR PROJECT-BASED FUNDING AND PROVIDE A MIX OF FUNDING MECHANISMS

➤ Monitor shift towards project-based funding in TEIs and its impact on training researchers

➤ Propose a mix of competitive and non-competitive mechanisms to balance undesired effects

PROVIDE LONG-TERM, CO-ORDINATED PERSPECTIVE TO RESEARCH AND INNOVATION POLICIES

➤ Ensure that research and innovation policies take a long-term perspective so that TEIs play their role in understanding and developing solutions to global challenges

➤ Ensure that policies are coherent and co-ordinated across government and evaluated across the entire innovation system

FURTHER READING

These general pointers for policy development are drawn from the Thematic Review of Tertiary Education, which covered tertiary education policies in 24 countries. The findings of this review are presented in Tertiary Education for the Knowledge Society, published in September 2008. Background reports prepared by 21 countries, Reviews of Tertiary Education in 14 countries and other documents of the review are also available on the OECD website www.oecd.org/edu/tertiary/review.