



Background document for the breakout session on recent experiences and policy lessons (14h30-16h00)

Breakout groups will discuss recent experiences on knowledge transfer policies across countries and policy lessons learnt. The starting point will be a set of recommendations made in the **OECD 2002 report on "Benchmarking Industry-Science Relationships"**. An abstract of the original text is provided below:

Recommendations targeted at the public research side

- **Giving greater priority to basic and long-term mission-oriented research in government S&T programmes.** Changes in business R&D strategies are generally accentuating longstanding disincentives for private industry to invest in fundamental research, thus heightening the need for government support.
- **Establish clear rules and guidelines with regard to the intellectual property (IP) resulting from publicly funded research,** while granting sufficient autonomy to research institutions. A good practice is to grant IP rights to the performing research organisation while ensuring that individual researchers or research teams can share in the rewards. Globalisation of research accentuates the need for efforts to harmonise IPR regimes across countries.
- **Improving the governance of universities and public laboratories.** Public laboratories can be made more responsive to emerging needs by establishing new mechanisms for priority setting and funding that reflect industry input and tie funding to performance, as well as by strengthening their links with the training and education system. In many countries, universities would benefit from greater autonomy in decision making coupled with more programmatic R&D funding. More competitive funding instruments are needed to improve the quality of research results while ensuring that fields of science of high economic importance receive attention.
- **Safeguarding public knowledge.** Governments must ensure sufficient public access to knowledge from publicly funded research, avoiding the risk for the innovation system that may result if the IP protection granted is too strong and non-exclusive licensing too rare. Guidelines are necessary to prevent or resolve conflicts of interest among the institutions and researchers involved in collaboration with industry.
- **Attracting, retaining and mobilising human resources.** Strong demand for highly skilled personnel raises concerns about a "brain drain". For companies and research institutions, keeping talent requires investments in in-house training, career growth potential as well as excellent research working conditions. To attract students at university, graduate programmes must better integrate interdisciplinarity and contacts with industry in training and research. Removing barriers and disincentives to mobility and flexibility in research employment is also essential.
- **Improving the evaluation of research.** Evaluation of publicly funded research must evolve and take into account that excellence in research and training of graduates has become, at least in some disciplines, more tied to applications in industry. Evaluation criteria need to recognise the quality of the research, its potential social and economic impact, and the value of university research in educating students.

Recommendations targeted at the business side

- **Matching supply and demand of scientific knowledge.** Regulatory reforms related to IPRs and the licensing of publicly funded research should be complemented by measures (e.g. the establishment of technology licensing offices, public/private partnerships in funding R&D, stimuli for co-operation with business, support for spin-off formation) that stimulate business demand for scientific inputs and improve the ability of public research organisations to transfer knowledge and technology to the private sector.
- **Promoting the participation of smaller firms.** Young technology-based firms play a key role in linking science to markets. Governments rightly attach priority to encouraging spin-offs from public research to stimulate innovation. However, there is also a case for public support and incentives to existing SMEs and especially those in mature industries in order to help them link up with the science base and enhance innovation capacity.
- **Responding to globalisation** by fostering the participation of foreign firms in national programmes, and encourage national research institutes and universities to internationalise their linkages with industry.
- **The promotion of industry-science relationships should be an integral part of an overall cluster- and network-based innovation policy strategy.** Giving more weight to commercialisation objectives in managing the science system, including the allocation of core funding, is likely to accentuate the polarisation of university research capabilities around existing centres of excellence.