

OECD WORKSHOP ON “CHANGING SUPPLY AND DEMAND FOR SCIENCE AND TECHNOLOGY PROFESSIONALS IN A GLOBALIZED ECONOMY”

DRAFT AGENDA

OECD Working Group on the Steering and Funding of Research Institutions (SFRI)

21 April 2005
Lead country: Australia

OECD Headquarters
2, rue André-Pascal, 75116 Paris

Background: OECD countries are concerned that the supply of science and technology graduates is not increasing fast enough to keep up with demand from industry and academia. Evidence of a decline of S&T graduates, in either relative or absolute terms, is mixed in most OECD countries: overall the supply of graduates in S&T continues to rise, although a few countries have seen a decline in specific fields such as chemistry and physics. Furthermore, there is little evidence of strong upward pressure on wages for S&T professionals. In fact, poor career prospects in the scientific occupations are often cited as one of the main reasons behind the decline in scientific studies among young people. Meanwhile, the sources of supply are also changing: more women are entering the scientific workforce even if they remain under-represented in certain fields/sectors. Non-university institutions are increasingly providers of S&T skills that industry demands. Finally, while foreign S&T graduates make up a growing part of S&T workforce in several OECD countries, some developing countries are now creating opportunities for their return as well as for the outsourcing of R&D jobs from the OECD countries.

Objectives This one-day workshop will aim to address the following key issues: Where will new industrial demand for S&T graduates come from? How can the labour market for S&T professionals, especially in the government and higher education sectors be improved? Are there “good practices” policies to improve the match between the supply of S&T graduates and demand? In addition, this workshop should open up new avenues for further research by the OECD’s SFRI working group.

THURSDAY 21 APRIL

Opening Remarks by the OECD

John DRYDEN, Deputy Director, Directorate for Science, Technology and Industry

Panel 1: New Demand for S&T graduates

Questions: Business R&D spending is rising in some countries but has fallen in others. In addition, the services sector is carrying out more R&D as are small firms. Public R&D spending has grown more in higher education than in the government sector. What are the implications of changes in R&D spending on demand for S&T graduates? What will demand for researchers look like in the near-to-medium term? What kinds of S&T skills will be needed (specific vs. generic)? What effect is the globalization of R&D having on demand for S&T graduates? Are R&D jobs becoming more exposed to outsourcing and competition from low-cost countries?

Chair: **Sveva AVVEDUTO**, Italian National Research Council and Chair of the OECD Working Group on the Steering and Funding of Research Institutions (SFRI)

- 9:10-11:10 Dr. Michael TEITELBAUM, Program Director, Alfred P. Sloan Foundation, United States
Dr. Jeffrey CRELINSTEN, Director and Publisher of *Research Money*, Canada
Dr. Prof. Harald SCHOMBURG, University of Kassel, Center for Research on Higher Education and Work, Germany
Dr. Frank Stefan BECKER, Siemens A.G.
Mr. Jan-Hendrik OCKELS, Managing Director of Yacht, division of Randstad Holding, n.v., Netherlands – *The growing global market for temporary S&T workers*

General Discussion

Coffee Break: 11:10-11:30

- 11:30- 11:45 Mr. Jean-Christophe Dumont, OECD – *The globalisation of the labour market for the highly-skilled: evidence from Labour Force and Census Data*

Panel 2: The changing labour market for researchers

Questions: *The labour market for researchers is undergoing profound mutations. The sources of demand are more varied than before (e.g. services, start-ups, transnational firms etc.) In the public sector, which accounts for half of researcher employment in many OECD countries, slow growing budgets and the need for flexibility have given way to a rise in temporary positions and pressures to make pay more competitive and performance-based. How can academia balance flexibility with the need to maintain the attractiveness of research careers? Are wages in academia responsive to changes in supply or is there “stickiness” and what can be done about it? How can policy promote the movement from academia to business and vice-versa when objectives, values and culture differ?*

Chair: Dr. Paula STEPHAN, Georgia State University and NBER SEWP

- 11:45-12:30 Prof. Paula STEPHAN, Georgia State University and NBER SEWP - *Changes in the career paths of young scholars—the example of the life sciences*
Dr. Laura Cruz, CSIC Unit on Comparative Policy and Politics, Spain – *The employment of PhDs in firms, trajectories, mobility and innovation*
Prof. Enrico Pugliese (professor at the Department of Sociology, University of Naples Federico II and Director of CNR-IRPPS) – *Changing labour market for Italian PhDs.*

Lunch: 12:30 – 14:00

- 14:00-14:30 Ms. Sigi Gruber, Strategy and Policy Unit, Directorate D, DG Research, European Commission

General Discussion

Panel 3: Adapting Supply-side Policies to Qualitative and Quantitative Changes in Demand: Lessons from OECD countries

Questions: As the job market for S&T graduates evolves, higher education institutions and governments must adapt to the new levels and new forms of demand. What can higher education institutions do to meet the new demands from industry and academia for S&T skills? How can they be made to react more quickly to changes in demand? What role for non-higher education institutions (e.g. vocational schools, private providers)? What role for public/private partnerships in developing curricula and research skills for young researchers? Are there examples of “good practices” in OECD countries?

Chair: Daniel Malkin, Head of the Science and Technology Policy Division, OECD

14:30– 16:30 Dr. Lawrence Tabak, Director of the National Institute of Dental and Craniofacial Research, United States – *The NIH Roadmap for Interdisciplinary Research Teams of the Future*

Mr. William Thorn, Science Counsellor, Australian Delegation to the OECD

Dr Liz Beaty, Higher Education Funding Council for England (HEFCE), United Kingdom

Mr. Yohei Matsuda, METI, Academia-Industry Cooperation Promotion Division, Industrial Science and Technology Policy and Environment Bureau, Japan

General Discussion

Coffee Break: 16:30-16:45

Panel 4: Concluding Panel and Issues for Further Research

Chair: Sir Roger Elliot, Oxford Emeritus Professor of Physics and International Council of Scientific Unions

16:45 – 17:45 Dr. Vincent Mangematin, Visiting Professor at the Cass Business School, London

Prof. Paula STEPHAN, Georgia State University and NBER SEWP

Mr. Mario Cervantes, OECD Science and Technology Policy Division

Dr. Frank Stefan Becker, Siemens A.G.

Mr. Roland Schneider, Trade Union Advisory Council to OECD

17:45: **Adjourn**

18:15-19:30: **Informal Reception hosted at the Residence of the Australian Ambassador to the OECD**