

# **ExTra workshop 1 (W)**

**September 29th/October 1st, 2005 - EPFL, Lausanne, Switzerland**

## **1st WORKSHOP :**

### **"University-Industry Knowledge Transfer Instruments: Scientific Publications and Patents"**

This workshop is the first of a series of workshops/seminars. It represents an opportunity to get together the best internationally recognized economists working on the topic of university-industry research partnerships in the knowledge economy, both at empirical and theoretical levels. The "economics of knowledge production and distribution" is an academic field which has increasingly attracted economists and econometricians during the recent years, while addressing very hot policy issues.

Economists are particularly interested in developing and applying econometric tools and techniques to address the various issues raised by the changing role of universities vis-à-vis the industry and the economy as a whole. The last several decades have seen a number of pioneering efforts to overcome measurement problems and gather data that can be used for the systematic empirical analysis of knowledge creation and transfer. The massive use of publication, patent and citation data has caused a "paradigmatic" change in the way empirical research is done now to track knowledge flows, explore knowledge diffusion, estimate research productivity and model "best practices" of knowledge transfer. People and teams at MIT, Berkeley, the National Bureau of Economic Research (NBER, Cambridge), Stanford, Michigan and some European places are producing excellent papers in the best journals dealing with these issues.

While there is a widespread belief that publicly funded research conducted at universities has a significant impact on the rate of economic growth, estimating the magnitude and describing the nature of this impact remains extremely difficult. This first session is devoted to presentation and discussion of recent quantitative works focussing on patents and scientific publications as a measure of university output. These works aim at tracing and describing knowledge flows between universities and the rest of the economy. For a decade, impressive empirical research has been undertaken in many universities to deal with these issues. It is time now to confront these works, discuss the empirical methods (econometrics) and compare the results.

#### **Scientific Committee:**

- Prof. Iain Cockburn, Boston University and NBER
- Prof. Dominique Foray, EPFL
- Prof. Rebecca Henderson, MIT and NBER
- Prof. Jacques Mairesse, INSEE and NBER

## **Presented papers:**

"Top research productivity and its persistency: a survival time analysis for a panel of Belgian scientists"

by R.Veugelers (K.U.Leuven en BEPA-European Commission) and S.Kelchtermans (K.U.Leuven)

"Academic incentives, research organization and patenting at a large French university"  
by N.Carayol(Université Louis Pasteur, Strasbourg)

"Publication and patent behavior of academic researchers: conflicting, reinforcing or merely co-existing?"

by B.van Looy (K.U.Leuven), J.Callaert (K.U.Leuven) and K.Debackere (K.U.Leuven)

"Citation hierarchies among scientific journals: a look at inequality, persistence and cumulative advantage in impact factors of scientific journals across disciplines" [not downloadable]

by J.Pouget (INSEE) and J.Mairesse (INSEE)

"University owned patents and university invented patents in six European countries" [not downloadable]

by G.Crespi (University of Sussex), A.Geuna (University of Sussex) and B.Verspagen (Eindhoven University of Technology)

"Commercializing basic science as a competitor or complement of academic accomplishment? The case of Max Planck directors"

by G.Buenstorf (Max Planck Institute of Economics)

"The scientific productivity of Italian academic inventors"

by S.Breschi (Università Bocconi), F.Lissoni (Università Bocconi) and F.Montobbio (Università Bocconi)

"University software ownership: trends, determinants, issues"

by J.Allison (University of Texas), A.Rai (Duke University) and B.Sampat (Columbia University)

"Exchange relationships and cumulative innovation: Standing on the shoulders of the Oncomouse"

by F.Murray (MIT) and S.Stern (Northwestern University)

"How do communication costs affect scientific collaboration? Exploring the effect of bitnet"

by A.Agrawal (University of Toronto) and A.Goldfarb (University of Toronto)

"University-industry knowledge and technology transfer in Switzerland: The university view"

by S.Arvanitis (KOF - Institute for Business Cycle Research), M.Woerter (KOF) and U.Kubli (KOF)