



## 1<sup>st</sup> GLORIA Workshop on: “Competition, R&D and innovation dynamics”

### Concept note

Changes in competition can affect incentives to undertake Research & Development (R&D) and to innovate. On the one hand, firms in markets characterized by high competition need to innovate to gain marginal competitive advantages to survive. On the other hand, when the level of competition is low, incumbent firms have incentives to invest in R&D to stave-off future competitors. The relationships between competition with innovation or with productivity have extensively been studied by many authors.<sup>1</sup> There is however no consensus as to the direction of the effect. While some defended the existence of an inverted U-shaped relationship, due to escaping the competition and the Schumpeterian effect, such as Aghion et al. (2005), others defended a monotonic impact (e.g. Arrow, 1962; Correa and Ornaghi, 2014).

In this setting, the workshop is introduced by a keynote speech from a recognised scholar (see first proposals in the agenda below). Then, the role of competition for R&D and innovation dynamics is deepened around two main topics: the key role of M&A as antecedent of competition and R&D, and the effects of competition and innovation on firm's productivity. The studies presented here aim at taking stock of the empirical evidence on the interplay between competition and innovation and present new research from new methodological approaches using data for the European Industrial R&D Scoreboard companies matched with data on M&A (Zephyr, Bureau van Dijk) and patents (PATSTAT).

As first topic, the role of M&A for innovation is non-trivial. On the one hand, M&A can lead to increased R&D deriving from the synergies between targets and acquiring firms (elimination of duplicative R&D, increased R&D resources, etc.). On the other hand, M&A can increase market concentration and increase the technology gap between leaders and followers, thereby reducing the incentives for followers to engage in an innovation race. In addition, increasing attention has been given to acquisitions by Chinese-owned firms, as they have been rising rapidly, and there is the concern that these acquisitions could give Chinese firms an edge in global markets that may have potential negative implications for R&D capabilities and growth in Europe.

The second topic, the effect of competition on innovation and on productivity, has long been regarded as a central question in economics, as both competition and innovation can be influenced by policy decisions. The aim of the presented study is to assess the effect of competition on innovation (patent applications) and on productivity (Total Factor Productivity and Labour Productivity), using data from European Industrial R&D Scoreboards. The dataset consists of the top 3128 largest companies in the world in terms of R&D expenditures, according to 43 countries and 41 ICB sectors and over the period 2000 to 2016.

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<sup>1</sup> For a survey of the literature see e.g. Symeonidis, 1996; Gilbert, 2006; Holmes and Smitz, 2010

This first GLORIA workshop is part of the Global Research & Innovation Analyses (GLORIA) project undertaken jointly between the Commission's Joint Research Centre and DG-RTD, where, nine previous workshops have been held.<sup>2</sup> The objective of these workshops is to obtain feed-back from policy-makers, industry representatives and experts about how the GLORIA activities are best serving their needs, and can continue to do so, particularly in terms of providing empirical evidence to support policy-making and offering information and benchmarking tools for companies.

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<sup>2</sup> See: <http://iri.jrc.ec.europa.eu/home/>. The activity is undertaken jointly by the Directorate General for Research and Innovation (DG RTD.A; see: <http://ec.europa.eu/research/index.cfm?lg=en>) and the Joint Research Centre, Directorate B Growth & Innovation (JRC-B; see: <https://ec.europa.eu/jrc/en/science-area/innovation-and-growth>).

# Agenda

Brussels, 18 October 2018

CDMA 06/144, 6th Floor, Room: 06/144 (MASTER)  
Rue du Champ de Mars, 21  
1050 – Bruxelles / Brussel, Belgium

## **9.15 - 9.30**

Welcome and Registration

## **9.30 – 9.45**

IRIMA as a policy tool: objectives of the 1<sup>st</sup> GLORIA workshop  
Marnix SURGEON (DG RTD A.4) – Alexander TÜBKE (JRC B.3)

## **9.45 - 10.30**

**Keynote speech** "Innovation and (price and non-price) competition"  
Pierre Mohnen (UNU-Merit)

## **10.30 – 11.15**

Ron Davies (UCD) and Sara Amoroso (JRC B.3)  
"The Impact of Cross-Border Acquisitions on R&D: The Role of Industrial Linkages"  
&  
"M&A strategies of top R&D investors"

*11.15 - 11.45 Coffee Break & Networking (Atrium room)*

## **11.45 – 12.30**

Michele Cincera, Anabela Santos & Ela Ince (ULB)  
"Competition effect on innovation and productivity of large worldwide R&D spenders"

## **12.30 – 13.00**

### Final round table

Discussion animated by Marnix SURGEON (DG RTD A.4) and Alexander TÜBKE (JRC B.3)

- Overview of main empirical lessons
- Main policy challenges for the near future

## **13.00**

Closing remarks and end of meeting by DG RTD A.4 and JRC B.3