

Clusters, global innovation networks, and the globalization of knowledge

There is growing evidence on faster international technology diffusion and increasing internationalization of innovation (Comin and Mestieri, 2013; WIPR, 2015). This phenomenon is at least partially explained by how multinational companies (MNCs) gain in efficiency from an international division of R&D (Branstetter, 2006), aimed at integrating technologies from diverse knowledge clusters (Mudambi, 2008). Another important aspect of this phenomenon is how foreign innovation can increase local productivity growth even under the assumption of low technological transfer from abroad both in the host (Eaton and Kortum, 1994, 1999) and home country (Castellani and Pieri 2013)

A key element of this process is the formation and persistence of global innovation networks, which have been defined as a *globally organized web of collaborative interactions between different organizations (firms and/or non-firm organizations) engaged in knowledge production that is related to and resulting in innovation* (Barnard and Chaminade 2017). There is a gradual shift taking place in the predominant innovation paradigm. In the old paradigm, innovation is almost exclusively concentrated in developed countries and globalization of innovation is mainly driven by large MNCs. In the new paradigm global innovation networks are no longer a phenomenon that is exclusive to large MNCs. It includes an increase participation of organizations from developing countries as well as a wider circulation of knowledge and individuals (Cano-Kollmann, Hannigan et al. 2018). A second modality of international knowledge diffusion – personal relationships (Lorenzen and Mudambi, 2013) – is becoming increasingly important in the 21st century “entrepreneurial economy” (Audretsch and Thurik, 2001).

Nowadays, the locus of innovation has to be found at the crossroad between territorial economies and the global innovation networks by which not only firms but places are linked (Herstad, Aslesen & Ebersberger, 2014; Cooke, 2013; Parrilli et al., 2012; Cooke, 2017). Paradoxically, innovation is also increasingly clustered and local, in the sense that, within countries, the production of ideas (science and technology) concentrates in fewer and fewer places. For instance, even in the enormous U.S. innovation system, the San Francisco Bay area accounts for about a quarter of the country’s total patent output. In particular, many of these ideas take place in large agglomerations of the world that host several different scientific and technological clusters often linked with other international leading clusters. These “superclusters” concentrate a disproportionate amount of the innovation produced both nationally and internationally. Moreover, in those clusters are also concentrated the lion’s share of the innovation interactions, reinforcing their dominance.

In this context, the aim of this Special Session is to collect contributions at the interplay between innovation clusters and global innovation networks (GIN), or in other words, between regionalization and globalization of innovation activities. Within this, we intend to explore topics like how the connection between clusters supports the circulation of knowledge and global distribution of innovation activities, what type of GINs support linkages between clusters, what is the role of migrants and MNEs in building GINs favoring positive cluster evolution, cluster and GIN identification, clusters in the Global South and GINs, agglomerations and GINs, and so on. We aim to stimulate the study of phenomena from different lenses and angles, combining both theory and empirics, as well as macro, micro and meso approaches.

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