Demand-led innovation and sectoral systems of innovation

Franco Malerba
Bocconi University
Director of KITeS

Joint CIIE-CSTP Workshop on Demand-led Innovation
Demand-led innovation in a sectoral context

- From the OECD scoping paper, I would like to emphasize one point: the view of demand led-innovation as embedded in sectoral innovation systems.

- This is a rather new view, that enriches and expand the consolidated perspective on demand-led innovation that has originated policies concerning the support for technology diffusion, public procurement, mission oriented programs, regulation and standards.
In a sectoral system perspective, demand-led innovation is analyzed and evaluated as a key component of sectoral systems.

Sectoral systems of innovation are composed by demand, knowledge, technology, actors, links and institutions. Links and relationships among parts of the systems are quite relevant for innovation.

Great differences exist among sectoral systems.
The role of demand in sectoral systems

Contrary to most supply-push approaches to innovation, a sectoral system view puts demand in a central position in the innovation process.

However demand-led innovation is not relevant in all sectors.

Demand-led innovation takes different intensity, forms and dynamics according to the sectoral system.
The different roles of demand in the different sectoral contexts

Major differences exist across sectoral systems in:

- The kind of users and consumers involved in innovation (lead users, intelligent customers, experimental users, communities, etc)
- The type of knowledge and capabilities that users and consumers have (knowledge about technology, applications, markets, etc.)
- The role of users and consumers in the innovation process (sources of feedbacks and ideas to suppliers, innovators, innovative entrepreneurs, etc)
- The type of interaction with suppliers and other actors (information exchange, cooperation, co-inventions, etc)
- The institutional setting conducive to demand-led innovation (regulation, standards..)
Roles and functions of users and consumers in innovation change over time.

- The evolution of sectoral systems modifies the role and functions of users and consumers in the innovation process.
- New roles and new functions emerge over time.
- New demand and consumers and users in new sectors represent a key transformational mechanisms of the economy.
Systems of policies

- A sectoral system view calls for the awareness by the policy-maker of the differences across sectors in the roles, knowledge and functions of users and consumers in the innovation process.

- Policies that aim to foster demand-led innovation may have different effects in the various sectors.

- Not independent policies, but systems of policies that take into account linkages, interdependencies and related consequences in the various sectoral systems may be called for.