
Innovation Definitions and Fundamentals

Governments are increasingly making innovation a key issue on policy agendas today, recognizing its potential to promote economic growth and address social and environmental challenges. However, many countries face significant innovation “gaps”, resulting from a variety of binding constraints. Tracing development paths that help overcome these constraints is an important task of innovation policy.

This module is an overview of the key questions in innovation with links to other modules that explore each of these questions in more detail. The questions discussed in this module are as follows.

What is innovation and why is it important?

- An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations (OECD/Eurostat, 2005).
- Innovation plays a key role in the economy and society by contributing to growth and jobs and helping address social and environmental challenges.
- Innovation is important for growth at all stages of development, specifically by creating and diffusing new technologies; different types of innovation play different roles at various developmental stages.
- Innovation may be characterized by several dimensions including (1) the degree of novelty, (2) the type of innovation (product and process innovation), (3) the impacts of radical and incremental innovation and (4) the source of innovation (technological and non-technological innovation).
- The notion of what innovation is and what role policies to encourage innovation can play has changed considerably over the past decades.

Who is engaged in innovation?

- **Innovative firms.** Firms are the main locus of innovation in market economies. These firms most often are founded by entrepreneurs and characterized as (1) innovative businesses, (2) young and high-growth businesses and (3) small and medium-sized enterprises (SMEs).
- **Universities and public research institutes.** PRIs play many roles in innovation systems including education, training, creation and diffusion of knowledge, development of new instrumentation, and storage and transmission of knowledge.
- **The public sector.** Public entities are also increasingly engaged in innovation activities, undertaken by a variety of actors—individuals, organisations, and communities—and often involved in social innovation, that is, innovations that seek new answers to social problems.

What factors affect innovation?

- Innovation depends on access to finance, availability of a skilled work force and market conditions that system innovators face including the state of competition and intellectual property rights.
- Another important factor is linkages, which may be mediated by networks and clusters, may be international in nature and may be capable of facilitating technology transfer and diffusion.

What types of policy interventions are needed?

The rationales and objectives of policy intervention in support of innovation are wide-ranging, as are the policy instruments used. The large variety of policy instruments and wider number of actors involved have increased the complexity of the policy landscape and made inconsistencies and redundancies more likely.

At the same time, appropriate measurement of innovation and the conditions that affect it are critical for enacting policies to support innovation. Measurement and evaluation enable policy makers to justify particular types of interventions, design appropriate policies with higher chance of success and conduct suitable benchmarking exercises.

How does innovation differ across sectors and technologies?

- Innovation processes can differ greatly between sectors and between technological areas, for example, in terms of development, rate of technological change, linkages and access to knowledge, as well as in terms of organisational structures and institutional factors.

References

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