

Innovation

ADDRESSING ECONOMIC AND SOCIAL CHALLENGES THROUGH INNOVATION

- ▶ India identifies innovation as a priority and has committed to catalysing inclusive development.
- ▶ Using innovation to upgrade in global value chains (GVCs) requires investment in a range of knowledge-based assets, from R&D to intellectual property.
- ▶ Policy action on education, and improving the conditions for entrepreneurship, is critical to spread the benefits of innovation across Indian society.

What's the issue?

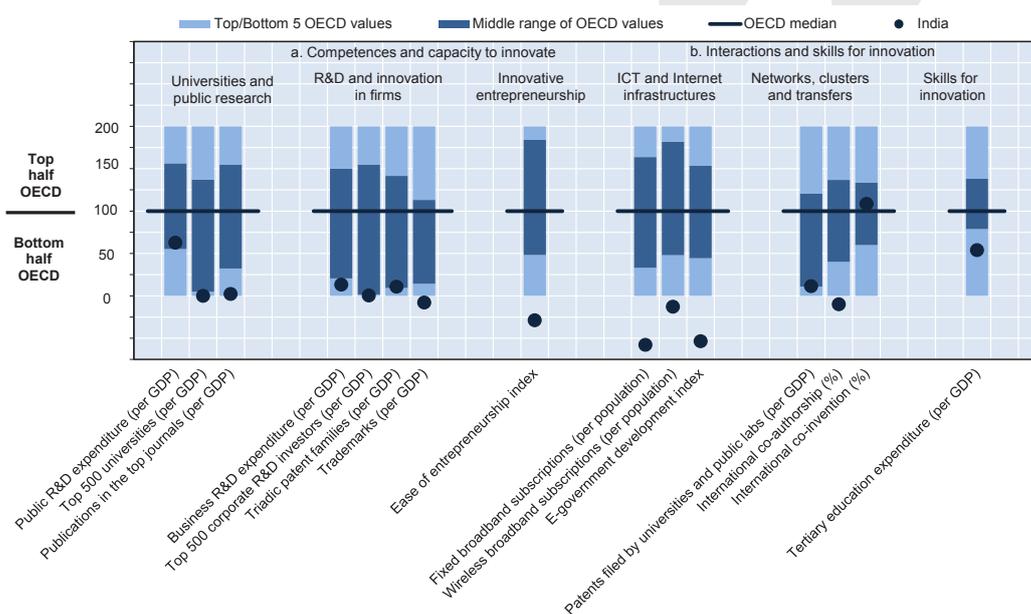
India has identified innovation as a priority. Its national strategy "Decade of Innovations 2010-20" commits to strengthening science, technology and innovation (STI) capacities, with an objective to increase gross expenditure on R&D to 2% of GDP by 2020. The commitment to innovation is reflected in India's recently launched "Make in India" initiative, which aims to strengthen manufacturing. At the same time, India's 12th

Five-Year Plan (2012-17) seeks to catalyse growth for inclusive development. A National Innovation Foundation supports grassroots innovators, and an Inclusive Innovation Fund (IIF) is expected to mobilise finance to support enterprises developing innovative solutions for the "bottom 500 million".

However, inputs to innovation remain a challenge, not least low business expenditure on R&D (see Figure). Low school attainment rates and the poor quality of the education system

India needs to improve its innovation inputs

Normalised index of performance relative to the median values in the OECD area (Index median = 100)



Source: Adapted from OECD (2014 forthcoming), *OECD Science, Technology and Industry Outlook 2014*.

hamper the development of human resources for STI. Relative to GDP, India has fewer world-class universities than other economies such as Brazil, China and South Africa. Furthermore, India's output of patents and trademarks is small, and while the presence of the R&D centres of multinational enterprises has accelerated India's integration in global R&D and innovation systems, it lags Brazil, China and Russia in its hosting of top corporate R&D investors. Meanwhile, barriers to entrepreneurship persist.

Why is this important for India?

As a global hub of offshore knowledge-intensive IT services and industry, India is a leading example of the economic possibilities innovation can bring. But India's growth rate has slowed in recent years and poverty continues to be a major challenge. Investing in innovation and upgrading to higher value-added activities can boost productivity, create better-paid jobs and strengthen growth. As such, addressing the barriers to enhanced innovation performance is essential.

India's "Make in India" initiative implies upgrading participation within GVCs, particularly leveraging existing competitiveness in certain export-oriented activities. To achieve this, more widespread investment in R&D, technologies such as ICT, data, designs, skills, branding and new organisational processes is required. Improving the framework conditions for private investment in innovation is a low-cost step for policy-makers to take – focusing on well-functioning product and labour markets, and systems of debt and early-stage finance, is essential. Ensuring the national intellectual property rights system is fit for purpose is also essential for encouraging knowledge-intensive economic activity. Policy must enable firms to experiment with potential growth opportunities and reap the rewards.

Ensuring the knowledge and benefits generated by innovative activities reach wider society is crucial to reduce gaps in living standards in India. Not all businesses and regions have equal innovation capacities, and good linkages between the private and public parts of the innovation system are needed to disseminate knowledge. At the same time, enabling innovative activities across the breadth of society is also important. India already excels at "frugal innovation", creating affordable high-quality products using existing technologies, and this has the potential to substantially improve living conditions for the poor. Facilitating grassroots entrepreneurship can both enhance access to products and services for a wider share of the population and help integrate previously marginalised groups into networks of economic activities. Education and financial instruments suitable for entrepreneurs are central here.

What should policymakers do?

- ▶ Boost business expenditure on R&D by improving the framework conditions for innovation and reducing financing gaps for innovative firms (e.g. through public-private provision of seed financing).
- ▶ Ensure that framework conditions support investment in the full range of knowledge-based assets – from R&D to skills and organisational processes – in support of upgrading in GVCs.
- ▶ Strengthen the skills base for innovation, so as to expand the circle of individuals and firms that successfully engage in innovation. This requires not only improvements in school attainment, but also boosting the absorptive capacities of people in the workplace, via skills and management development.



Further reading

OECD (2013), *Supporting Investment in Knowledge Capital, Growth and Innovation*, OECD Publishing. http://www.oecd-ilibrary.org/industry-and-services/supporting-investment-in-knowledge-capital-growth-and-innovation_9789264193307-en

OECD (2014), *Science, Technology and Industry Outlook*, OECD Publishing. <http://www.oecd.org/sti/oecd-science-technology-and-industry-outlook-19991428.htm>

Innovation Policy Platform.
<https://www.innovationpolicyplatform.org>