

Understanding—and Unleashing—Innovation

Innovation Strategy Today, a new electronic Journal, takes an “innovation systems” approach to the pressing problems of international development, to the challenges of poverty reduction, to the goal of health for all, and to the dream of a more equitable world. We pursue this framework not for its own sake but for the valuable light it sheds on the specifics of these global challenges and goals. We are convinced that by considering key components within an innovation system, we will move beyond stale, polarizing debates and publish pragmatic analysis, proposals, and ideas that will re-ignite economic and social development.

Innovation Strategy Today builds upon the success of our eJournal *IP Strategy Today*. Established a few years ago, that journal has so far published two dozen comprehensive papers on a range of strategic issues related to intellectual property (IP) rights, public-private partnerships, and the transfer of agricultural biotechnology and health innovations to resource-poor farmers. Debates on these topics sometimes suffer from a single-minded focus on the minutiae of IP systems, with proponents at times viewing IP as an end in itself. Such an approach polarizes debate, and so the articles in *IP Strategy Today* have sought to place this discussion in a larger, more open context. *Innovation Strategy Today* continues this effort and will place IP and a range of other essential policy and strategy elements into the broader context of “innovation.”

Innovation is not magic but the result of an integrated system, a system that can be traced, analyzed, and improved. Public and private institutions globally interact within this system to “deliver” the benefits of new knowledge and/or new technologies to society. *Innovation Strategy Today* focuses on the intersections of innovation and international development to show how innovation can be better harnessed to benefit the billions of people in developing countries who are excluded from innovation in health and agriculture. This means thinking about the system of innovation as a set of interlinked and dynamic components. As the first paper in this series by Carlos Morel and col-

leagues demonstrates (pages 1-15), this system encompasses education, research and development, manufacture and production, domestic and export markets, IP management, regulatory systems, public-private partnerships, and the national policies that affect these. The paper further demonstrates the rapidly growing innovative capabilities of certain developing countries, which leads the authors to propose an *Initiative for Health Product Innovation in Developing Countries*: a strategy to maximize the growing global efforts to address diseases of the poor by unleashing the creative capabilities of innovation *in* developing countries.

To unleash innovation, the relevant multiple aspects of innovation systems must be adjusted with concurrent or synchronized initiatives. This is a very rich field of study—and action. To understand and improve this system we must imagine new ways of connecting centers of innovation, new kinds of interactions among and between the public and private sectors, and perhaps even new definitions of their roles.

Based on decades of experiences in India, the second paper by R. A. Mashelkar (pages 16-32) provides a pragmatic underpinning for the first article. His lecture shows how innovation, fuelled by investments in science and technology, is promoted by sound government policies and nurtured in a flexible, competitive, and dynamic economic environment. Mashelkar identifies “openness” as a key component of India’s innovation system: “*In a developing country context, this means building on reforms that emphasize openness to new ideas, new products, and new investments.*” Noting that innovation is a “*many splendored endeavor,*” he highlights the roles that both low and high technology can play in solving the problems of the poor (e.g. the *Simulator*, a handheld internet appliance invented by young creative minds at the Indian Institute of Science in Bangalore). Mashelkar concludes by exhorting us to remember that “*with proper support and encouragement, we can change the direction of people and institutions to eventually benefit humanity at large.*”



Both of these papers show that unleashing “innovation” cannot be achieved in isolation; it is not a matter of merely focusing on certain reforms and investments in one country. We live in an increasingly interconnected world, and both developed and developing countries, both public and private sectors, must find new ways to work together to create and unleash innovation. We believe that this is not a matter of luck but of analysis, understanding, and rational choice.

The images on the cover of *Innovation Strategy Today* proclaim these intentions and aspirations. A woman in the Democratic Republic of the Congo grating corn on a stone signifies the eJournal’s dual recognition that innovation must make a real difference in people’s lives and that some of the most valuable innovations are developed at the grass-root level. Indeed, indigenous cultures around the world are rich with the genius of innovation.

To globally unleash innovation appears to require a change of perspective. Images on the cover from some of history’s most innovative geniuses attempt to convey this point and to inspire us by recalling a period of rapid, breathtaking innovation. We may well be entering a new period of fast-forward progress as “innovative developing countries” take the lead. Mashelkar perceives this acceleration at work in the “Brain Gain” of developing countries, an observation echoed in the popular press (e.g. “NRIs, expats fuel biotech boom in India”, *The Economic Times* of 12 April). The frontispieces thus express our hope that *Innovation Strategy Today* will help give birth to a renaissance in our own field. We take inspiration from Leonardo da Vinci, who produced ingenious designs for optical instruments, giant and rounded mirrors (the basis of modern telescopes), flying machines, and fantastic mechanisms of all kinds. His *Codex* drawings of the flight of birds, elaborate trains of gears, the workings of the human heart, and, perhaps best known of all, the *Vitruvian Man*, all testify to the creative power of the human imagination. Da Vinci has come to stand for this period of boundless scientific discovery and technological invention, coupled with

sublime works of art and towering achievements in the humanities. Polymath theorist, scientist, and inventor, da Vinci continues to inspire the modernity he ushered into existence. He transcends his time because he broke with the disciplinary conventions of his day, pushing past these boundaries in ways that did not fit in with the expectations of his contemporaries.

Some might argue that the papers published by *Innovation Strategy Today* might also appear not to fit our field’s established conventions, but that is because the papers we accept must exceed *your* expectations. We take intellectual risks. We encourage the flight of the imagination. Just as the Renaissance provided science with innovative instruments that greatly enhanced its powers and shifted paradigms, we hope that *Innovation Strategy Today* will share with the world new ideas and fresh approaches to long-standing problems in international development. When Galileo Galilei turned his famous telescope to the night sky, he illuminated a new cosmos. The tools were ready to hand (contrary to popular belief, Galileo did not invent the telescope) but he imagined a new use for this new technology, revolutionizing our understanding of the world and our place in it.

It is in this spirit of imaginative innovation and intellectual risk taking that we place representations of da Vinci’s drawings and of Galileo’s telescope on the cover of *Innovation Strategy Today*. On every page of the journal, the telescope also serves as our mascot, reminding us of Galileo’s daring genius and the imaginative leap that shifted humanity’s perspective. Let us be inspired to better understand innovation. This will provide us with new insights, new knowledge and tools, and the creativity of new perspectives that are needed to meet the plight of the world’s excluded people, particularly those of the burgeoning—and innovatively budding—developing world.

Anatole Krattiger
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