



अखिल भारतीय शिक्षा समागम
Akhil Bhartiya Shiksha Samagam

Catalyzing R&D: Industry-Academia Collaboration

A perspective by Indian Pharmaceutical Alliance

By

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Secretary General



Innovation will play a critical role and take industry to next level

Innovation can drive significant health and economic benefits for India

Reduce India's Disease burden

Drug development for India-specific ailments don't get adequate global attention (e.g., drug-resistant infections like NDM-1, oral cavity cancer) to help reduce India's disease burden

Job creation

Create high-skilled, white collar jobs enabling differentiation vis-à-vis other developing economies

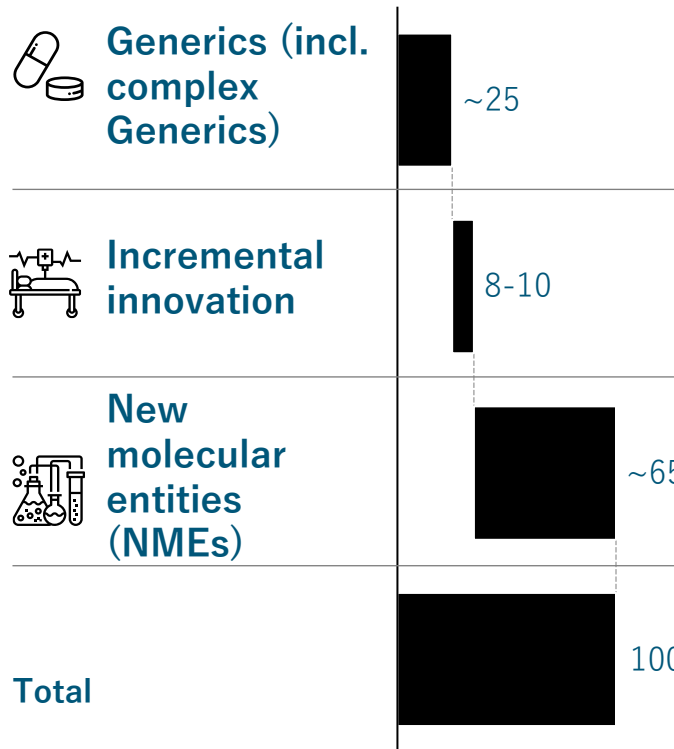
Increase in exports

Contribute additional USD 10-12 Bn of exports every year for the economy from 2030

Industry needs to be relevant by expanding into NME that accounts for 2/3rd of global value pool and where India has small presence today

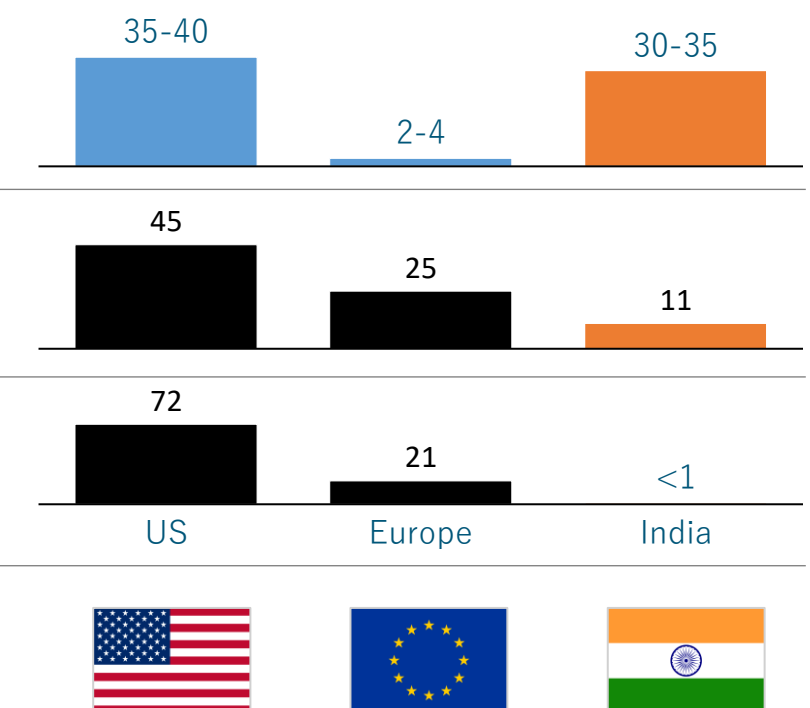
Pharma market value

Percent



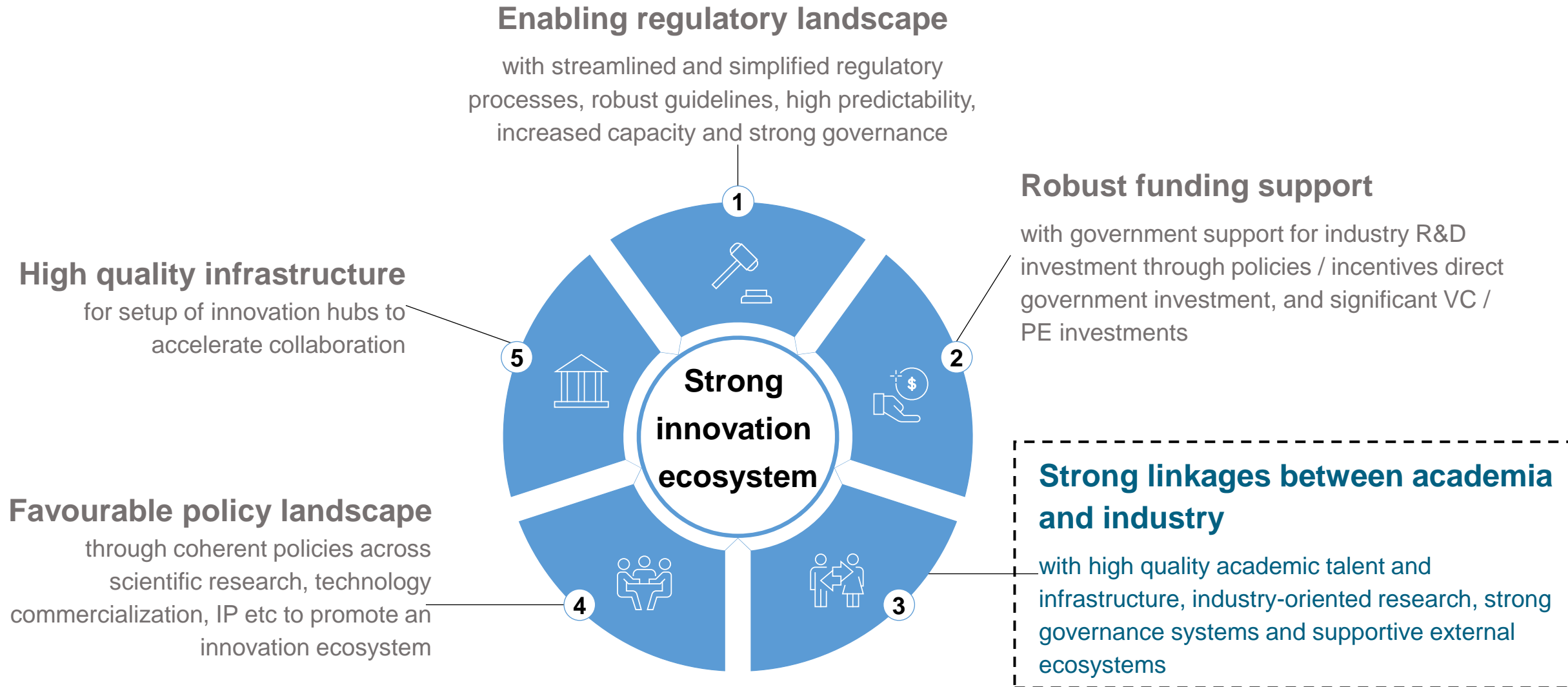
Share of approvals 2015-18

Percent



Indian pharma industry has established its dominance in the generics space and now needs to move up the value chain to build a strong innovation ecosystem

5 building blocks for building a strong R&D ecosystem



Strengthening Industry-academia Collaboration

A. Strengthen academic talent and academic infrastructure

- 1 **Course-curriculum upgradation, teacher's training,** and development of internships with academia
- 2 **Attracting talent** from the world's best universities
- 3 Setup of **tech transfer offices in universities** with expertise in life sciences specific IP management, commercialization ,marketing and valuation principles

B. Setup a strong governance framework to build trust and accountability

- 1 **Industry to fund research in academic institutions** with **outcome-based funding** i.e. stage gate funding with pre-defined milestones
- 2 **Trust and transparency between academia and industry** through strong IP protection, contractual design, and enabling higher flexibility between scientists and industry partners

Strengthening Industry-academia Collaboration

C. Develop an external ecosystem to facilitate R&D collaboration

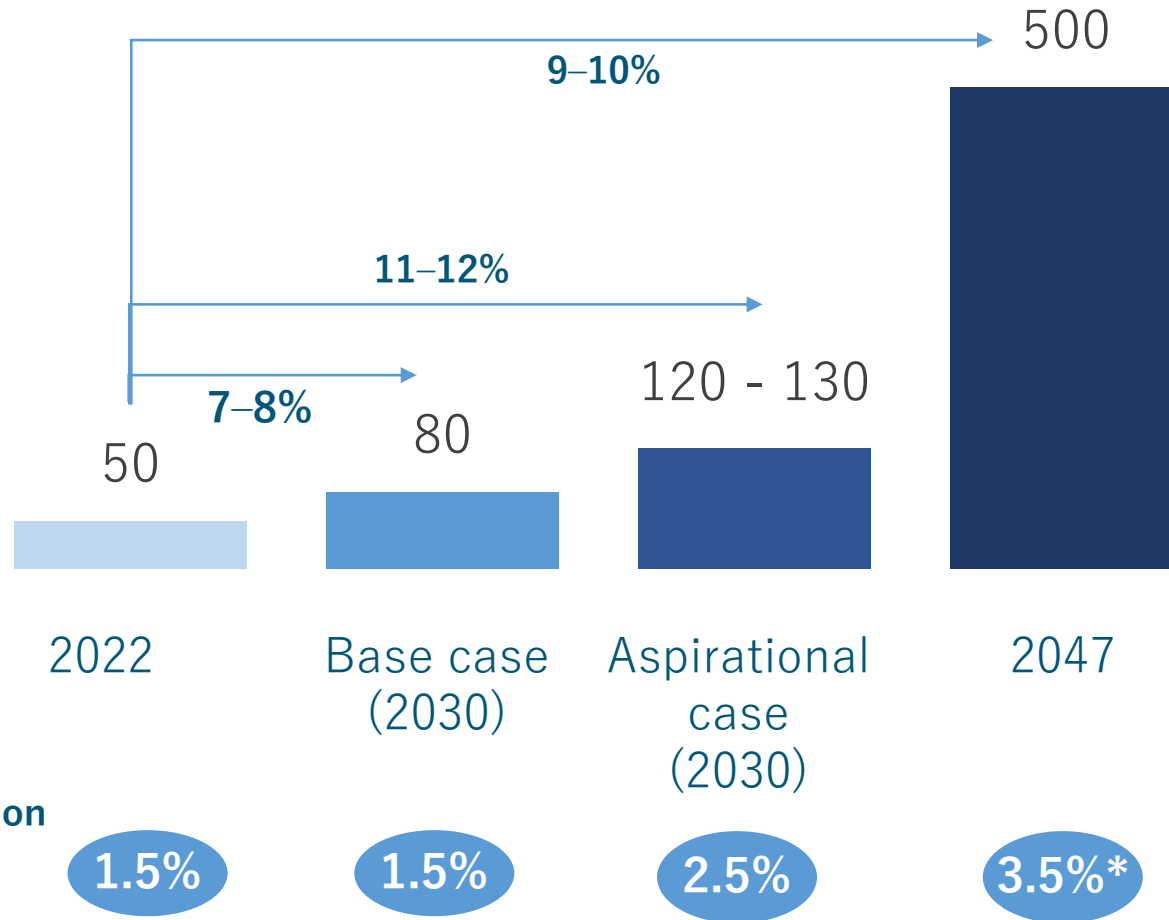
- 1 **Multistakeholder collaboration** among various institutes to form **innovation clusters**
- 2 Increased **emphasis on strong and impactful alumni associations with representation in the institute management** to attract investments and channelize research efforts

D. Strengthen policy framework

- 1 **Policies such as Bayh Dole Act** to
 - encourage academicians to setup independent companies (spin offs) to move academic discoveries into the commercial landscape
 - ensure fair reward sharing between innovators, institutes & industry
- 2 **Provision for companies to setup “research fund”** for supporting research programs at **academic institutions and laboratories with tax incentives**

Vision @ 2047: R&D will be critical to move up the value chain

Indian Pharmaceutical Market Size (USD Bn)



Key drivers of growth

- Build **strong innovation pipeline** with potential breakthroughs in **next-generation innovative products** to enhance Indian pharma's significance beyond generics
- **New therapeutics:** Cell & Gene Therapy, NCEs, NBEs, Biologics
- **Linkages between industry and academia will be the foundation**

*Assuming India's GDP at \$15 Tn in 2047 as per the report by Observer Research Foundation



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Thank You

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