January 2019

AGENDA

1. AGNIi's Role in the Innovation Ecosystem

2. The 4Cs of Boosting Technology Commercialization

3. CSIR and the Future of Technology Transfer

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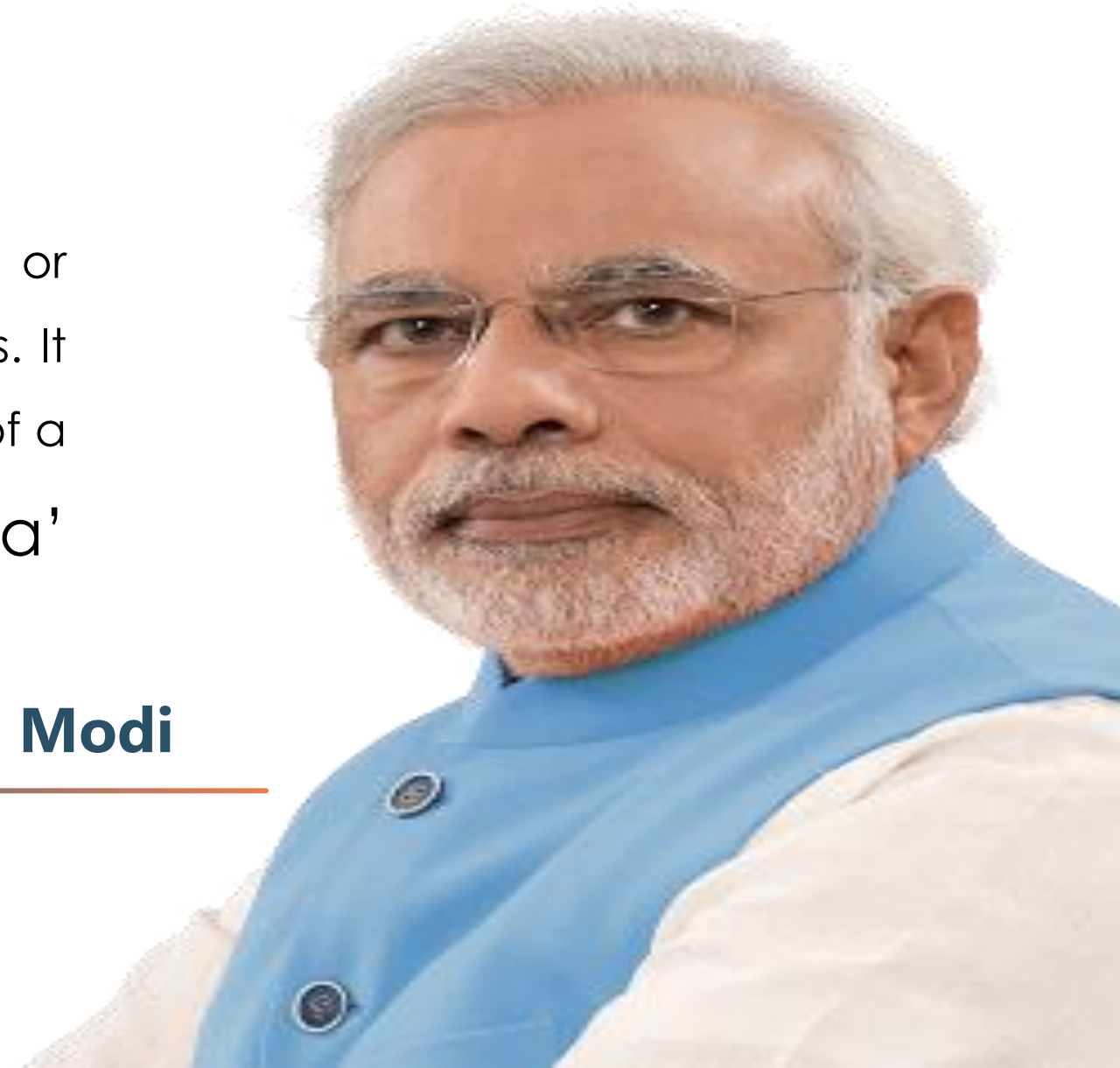
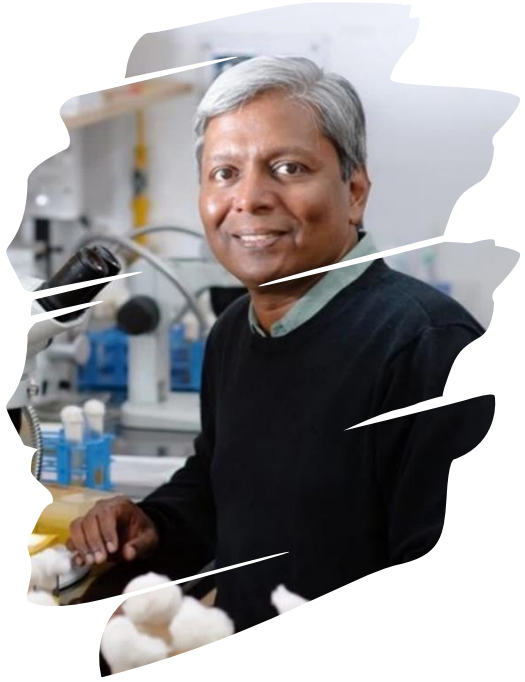
Innovation is not merely a word or an event. It's an ongoing process. It is the key to realizing the dream of a

‘New India’

Prime Minister Narendra Modi



AGNIi: Flagship government innovation program to support technology commercialization



Prof. K. Vijay Raghavan,
Principal Scientific Adviser

Ease of discovery of innovations taking place in research labs and at the grassroots level

Commercialization-focused R&D with early and regular inputs from Industry

Reduced cost of corporate innovation by connections to ideas, talent and global partners

Matchmaking Solution Providers and Solution Seekers

Solution Providers

Solution Seekers

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AGNIi's 4Cs

Capture

Market-ready innovations across India on AGNIi web portal

Connect

Innovators to industry & government buyers for technology transfer

Cultivate

Both talent & opportunities for deep-tech and grassroots innovations

Collaborate

With academia and industry for sponsored research projects and open innovation challenges

“Commercialization”

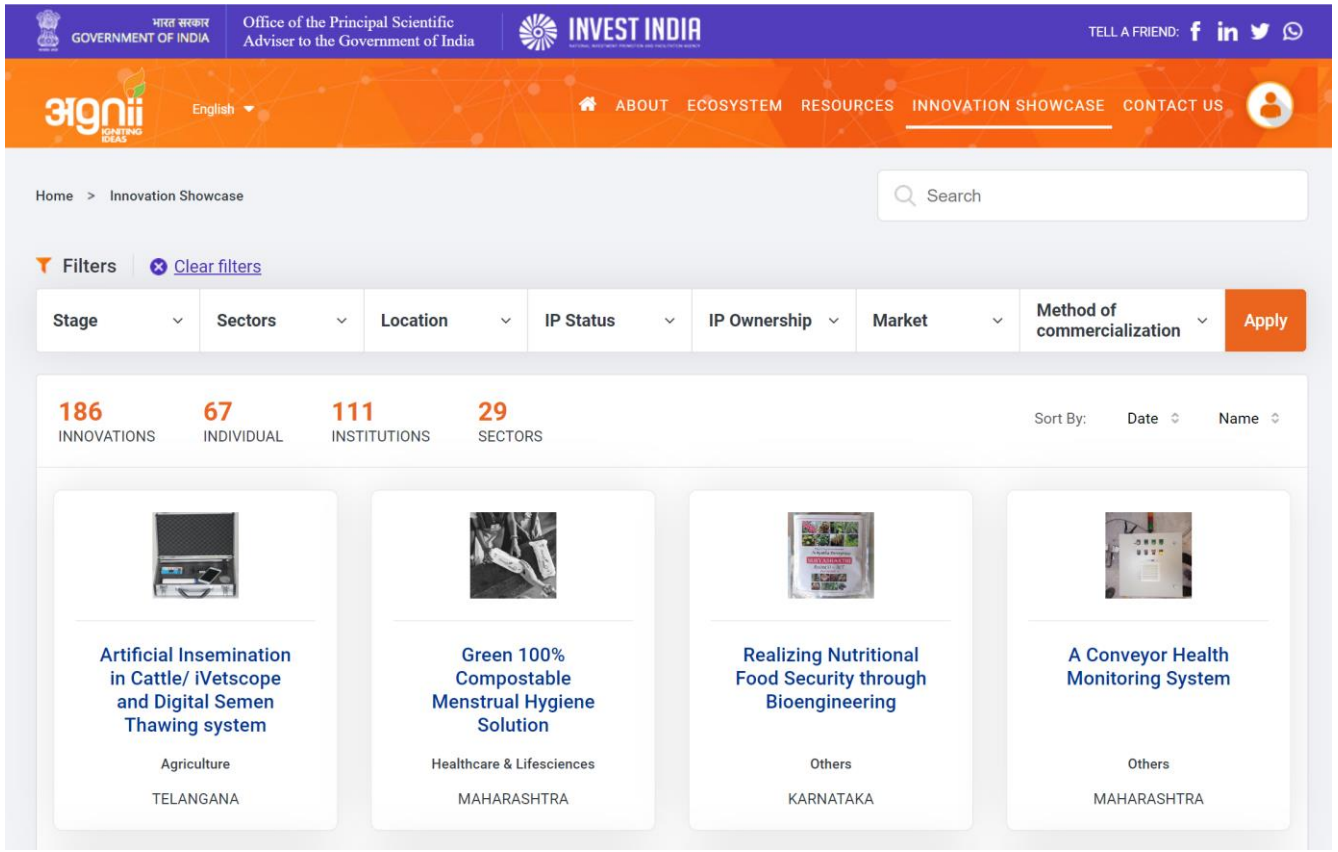
“Commercialization” – Process of introducing a new product or technology, into the market place

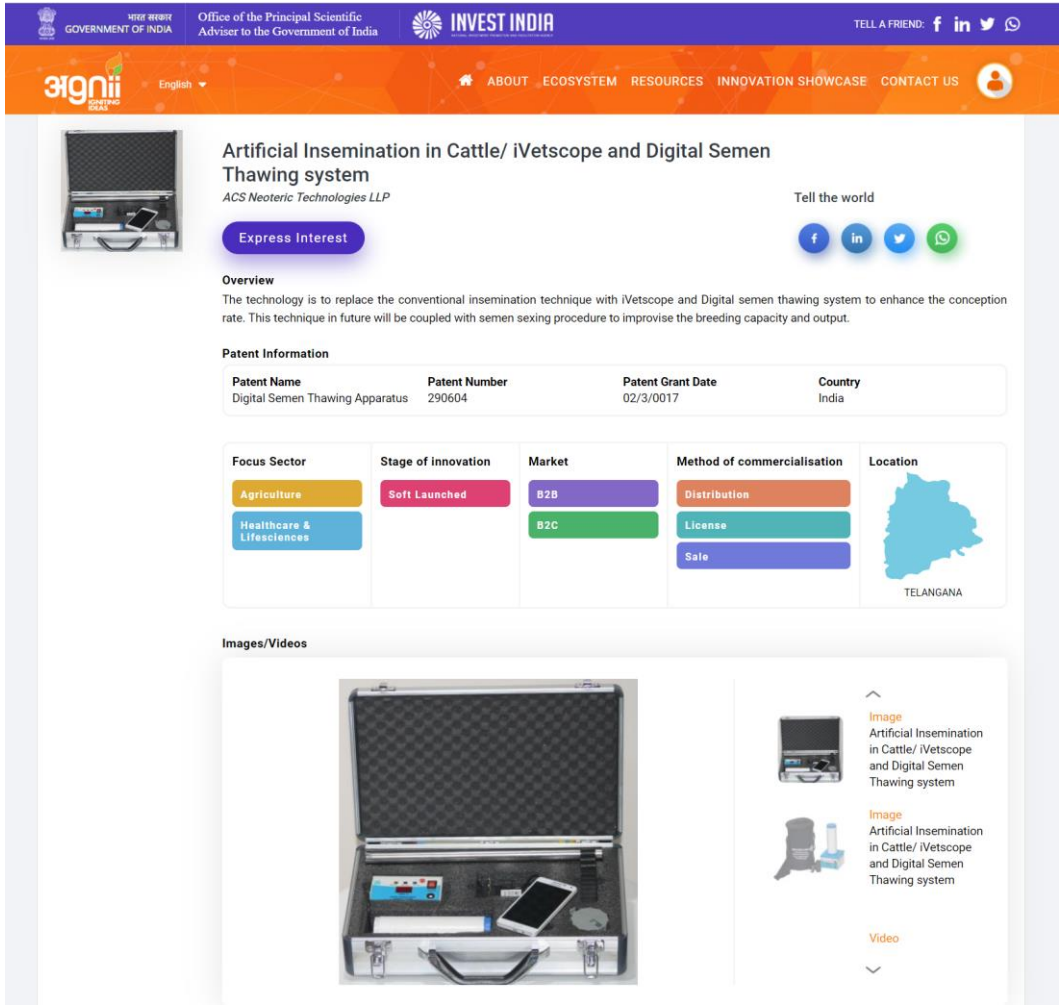
The term Commercialization includes various modalities such as:

- Market access – potential buyers, distributors, manufacturing support
- Technology transfer – licensing or sale of innovation IP and technology transfer to potential customers
- Facilitation of funding, acceleration, regulatory or other assistance to remove bottlenecks to market access

Two Way Street

1. E-Marketplace of Innovation





2. Open Innovation: Demand Driven Technology Scouting

Innovators and startups are changing the basis of competition for large incumbents by impacting key revenue and cost channels.

With this new market reality, gone are the days when companies could rely solely on internal R&D behind closed doors. Established players are finding it tougher to innovate faster than the market to avoid disruption.

Companies must find a new model of open innovation that creates win-win outcomes for both the incumbent and the innovator.

“Collaboration equals innovation”

– Michael Dell

Focus Areas

Focus Areas : AI, cybersecurity, autonomous systems, quantum computing etc.

Focus Areas : Automotive technologies, agri and food technologies, defence, and fintech

Focus Areas : Mobility services, electric vehicle ecosystem, connected vehicle solutions etc.

Focus Areas : Pollution, water and sanitation, mobility etc.

Focus Areas : Clean Technologies

Focus Areas: AI, ML, AR, Computer Vision, IoT, Health, Energy, Agriculture, Space, Education etc

Matchmaking in action

AGA KHAN FOUNDATION
An agency of the Aga Khan Development Network

- Developed a combo domestic water purifier device which is made of polysulfone based nanocomposite ultrafiltration membrane in cylindrical configuration.
- This configuration/ device can be effective for removal of microbial contaminations, arsenic and iron without the need of any electricity and overhead water tank.
- The device is most suitable for rural and slum areas.

Clean drinking water to 1 lakh villages

2. Technology Showcase Events

आयुष मंत्रालय
MINISTRY OF AYUSH
सत्यमेव जयते

- AGNIi organized a Technology Showcase with the Ministry of AYUSH, where scientists from the Ministry's research councils pitched their technologies to several potential industry stakeholders in a closed-door session.
- Outcome achieved : 15 of these innovations are at different stages of commercial negotiations with 10 industry players.

श्रम एव जयते
NDMC
नई दिल्ली नगरपालिका परिषद्

- AGNIi organized a Technology Showcase with the New Delhi Municipal Council (NDMC), where next-gen technologies were presented to the leadership of NDMC.
- Outcome achieved : NDMC has started work on pilots with 4 startups.

3. Tapping Aspiring Entrepreneurs

Developed novel value added tea products such as Catechins, Polyphenols, Tea Wines and Ready to Serve (RTS) Tea and is in possession of the process for extracting/ making Catechins, Polyphenols, Tea wines and Ready to Drink (RTD) Tea

Payalh Aggarwal,
Tea Entrepreneur

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CSIR CIMAP Pilot Plant

Dedicated pilot facility that supports start-ups and entrepreneurs by providing them with well-equipped multi-disciplinary laboratory facilities (period – one year).

IIP Industry Friendliness

- Proactive interactions led by the Director
- Interacted with scientists behind the top technologies – so technology mapped to scientist and industry connects become easier
- Identified top 5 technologies and defined time lines for commercialization for each technology
- Technology Detailed Format:
  - Cost, Patent, etc.
  - Detailed timeline of commercial application of technology – how long pilot would be run for data to be generated – helps to set corporate expectations

NCL Innovations' TRL Driven Transfer Services

Licensing terms –

- Option model - Enables piloting of technology
- Allow for exclusive and royalty based models
- Focus on Technology Readiness Levels

Lab to Market Program – set up an independently run **NCL Innovations unit** to look for newer models of commercialization.

Program attracts the team and raises funding for tech commercialization

Technology Readiness Levels

Available knowhow : **42**

Sr. no.	Technology Readiness Levels	Number of records
1	TRL A: Technology concept formulated	1
2	TRL B: Proof-of-concept demonstrated in lab scale	30
3	TRL C: Prototype developed and tested; technology demonstrated at pilot scale	10
4	TRL D: Product or service offering tested in real/ field trials; trial use by test customers	1
5	TRL E: Commercial production/ service offerings in place	0
6	TRL F: Proven technology with respect to established market	0

IDEAS FOR MONDAY MORNING

Dedicated facility to raise TRL level

R2B meetings

New licensing models

LinkedIn

Startup Events

Triple Helix

New India is Open for Innovation

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