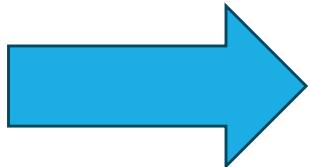

COMPONENT 2

Technical Support for Technology Transfer Support Facility

Technical Support for Technology Transfer Support Facility

Study of the Indian Technology Transfer Ecosystem to Increase Commercialization of Innovation



Verify existing centres, networks
and capabilities

Establish the 'as-is' status and
practices

Identify gaps and bottlenecks

Design the project
intervention for
long term impact

Consultative process: Two rounds of focus group discussions, in-person interactions and multiple iterations on the Terms of Reference

The study has been designed to provide the following learnings:

- Mapping and characterisation of the '*as-is*' Indian technology transfer ecosystem.
- Insights into the bottlenecks and inhibitors of the technology transfer process in the country.
- Good practices framework developed from studying five international ecosystems.
- Insights into the kind of Capacity Building efforts that can be provided to strengthen the low-carbon tech transfer ecosystem.

Mapping of TT Ecosystem

Long list – 524

Shortlist – 59

Institutions
visited - 25



- Central Universities
- State Universities
- IITs – older IITs and new-generation IITs
- NITs
- Private education institutes
- National research laboratories
 - CSIR labs
 - ICAR labs

Study of International Ecosystem (GII 2022)

- Switzerland (1)
- USA (2)
- South Korea (6)
- Germany (8)
- Israel (16)

Shortlisting Criteria

Long list - 524

Shortlist - 59

Institutions visited - 25

- ✓ Technology Transfer as a primary activity, as per information in the public domain.
- ✓ Active intellectual property filing, technology development, and commercialization.
- ✓ The structure of the TT unit was screened for the presence of a dedicated team and a Team Leader

Characterization Matrix and Research Instruments: Questionnaire

7 Key Attributes:

- Features of TTO – Background information
- Functions within TTO
- TTO Administration
- TTO Governance
- Policies, guidelines and types of agreements developed at the TTO
- Financial information
- Linkages and Channels for interaction with the stakeholders

25 sub-attributes

42 Questions in the Questionnaire (Part A and B combined)

Part A – Quantitative information such as the number of patents applied and the number of patents granted.

Part B – Qualitative information and SWOT analysis

Observations – TT Ecosystem

Emerging practice

Wide range in terms of real-deal flow experience

Preference for non-exclusive licensing

Expectation mismatch between the Industry and Academia, prolonged deal negotiations without any clear outcome (fence-sitting behaviour from the industry)

Very little attention to communication, marketing, and promotions

Career anxiety among TT practitioners

Observations – Features of TTOs in India

Most TTOs established in 2000s, mostly from 2010 onwards.

Most TTOs are established as a working unit / cell / project within a larger host institutional structure.

Reporting and financial practices are within the context of the host institution.

In most cases, no dedicated funds are available for Tech transfer activities

Observations – Functions within TTOs

IP management function most developed.

Following TT function assumptions have been observed:

Some TTOs consider **1 patent = 1 technology**

Some TTOs consider **1 patent licensed = 1 technology commercialized**

Some TTOs have reported

The number of technologies commercialised > the number of technologies generated.

Observations – TTO administration and Governance

- Almost half of TTOs (56%) reported a board of governance
- Nearly one-third (36%) of TTOs reported leadership with independent charge
- The lowest number of TT team members were reported with having Technology development expertise
- IP Expertise is the most widely available skill-set.
- 88% TTOs do in-house tech assessment and 76% do in-house valuations
- 60% TTOs reported a selection criteria for TT pipeline but rarely it was based on TR level

Observations – TTO Policies, guidelines and types of agreements

80% TTOs reported doing co-commercialization with other organizations.

76% TTOs prefer non-exclusive licensing deals

48% TTOs reported signing Data Use agreements

All TTOs reported that TT guidelines are a sub-set of the IP management policy. No TTO reported a dedicated TT policy

~ 60% TTOs reported Material Transfer Agreements and Knowledge Transfer Agreements

Consultation Session with TTO/TTC

- Training Program in technology transfer and commercialization concepts such as:
 - ◆ TRL upgrade, ◆ technology assessment, ◆ technology valuation, ◆ negotiations,
 - ◆ deal design and drafting, ◆ record keeping and ◆ performance review.
- Increase awareness of technology transfer and commercialization aspects of R&D in academic institutions.
- Creation of a common networking platform for peer-to-peer knowledge exchange.
- Benchmarking of Technology Transfer practices and sharing of case studies.