
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.