

## PATENT LAW IN NANOTECHNOLOGY BASED APPROACHES FOR COVID-19 MANAGEMENT

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### ***Abstract***

*The present work reports studies related to the role of patent as intellectual property rights (IPR) for the dynamics of innovation associated with nanotechnology based approaches specific to Covid-19 management. The novel corona-virus properly termed as SARS-CoV-2 (severe acute respiratory syndrome coronavirus-2) is the main cause for COVID-19 disease outbreaks in the entire world. The effects of the COVID-19 pandemic on the public health care including medical and diagnostic infrastructure shortages are very serious. Thus, scientists need to explore the fabrication and standardization of SARS-CoV-2 rapid diagnostic tests and treatment for the better prevention in the future. Nanotechnology is considered as a most powerful and innovative technology revolution due to its immense potential promises and possibility of making significant futuristic changes. In the development of COVID-19 treatment and vaccine making, nanotechnology tools are considered as a key player to implement the diagnostic-based approaches. Along with a new generation of tools came a new generation of IPR related problems. Nanotechnology applications find difficulty to conform to the existing classifications of IPR policies. In relation to IPR, the possibility of developing specific guidelines in light of the complex technologies like nanotechnology used can prevent exclusive rights on the essential processes related to human life.*

**Keywords:** *SARS-CoV-2 virus, Nanotechnology, IPR, diagnostic approaches.*

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## **INTRODUCTION: FRAMING THE LANDSCAPE OF TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY:<sup>1</sup>**

All parties contribute their resources to this ecosystem to create innovation to combat global challenges, technology transfer is one of the most powerful instruments of Intellectual Property applied in the whole innovation life cycle, assuring the ownership over works of intellectual minds and the power over its socially responsible for transferring of technology, often referred as Transfer of Technology (ToT), it is a systematic procedure by which technology or generated information at one organization is relocated to another required location, typically for purpose of better transmission.

The sharing of technology can happen through various means, such as obtaining licenses to utilise safeguarded intellectual property or exchanging expertise and materials. Establishing merchandise that meets consumer wants and managing distribution channels are necessary for commercialising technology.

The transfer is deemed effective if the transferee, the entity that received the technology, can use it and eventually integrate it, whether it has been customised. Tangible assets, expertise, and technical know-how, encompassing designs, drawings, and intellectual property rights (IPR), can all be encompassed within the transfer process. The transfer of technology facilitates the transformation of nascent intellectual property into resources directly deployable by the research community or foundations for the creation of new platforms, products, or services intended for widespread use.

The primary beneficiary of technology transfer is the public, deriving benefits from both the products introduced to the market and the employment opportunities generated through research, development, production, sales, and support services, among other aspects. Numerous classifications highlight various facets of the transfer process. The study of formal technology transfer routes, such as direct foreign investments, joint ventures, and licensing, has received the most attention.

Since technology is a clear object of communication, these are referred to as formal channels. Networks started to take on more significance by the end of the 1980s as a means of information sharing between the market and non-market. These are embedded kinds of technology transfer, or transfers that are a part of long-term alliances, partnerships, and other non-equity connections.

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<sup>1</sup> Barry Bozeman, *Technology Transfer and Public Policy: A Review of Research and Theory* (29, April 2000).

## CHALLENGES AND OPPORTUNITIES IN TECHNOLOGY TRANSFER AND IP COMMERCIALISATION:<sup>2</sup>

### ➤ Opportunities:

Technology transfer is beneficial for educational institutions such as universities, firms, corporate bodies, regional and national economies, and society as a whole, as innovation can be through these institutes and would provide a guiding route for future innovations.

Considering the aspects for educational institutions, technology transfer would act as an assist in upscaling research work and gain reputation and credibility for the institution, and its scientists, which would encourage the students to conduct more such research initiatives. This would further lead to better and experienced faculty recruitment, and proper funds would be granted, which would provide quality research. This could also assist with ongoing or for conducting future research initiatives.

Companies stand to gain advantages by accessing technological advancements developed in top-tier domestic or foreign educational institutions. This allows them to harness the investments and expertise contributed by world-leading scientists and engineers. Simultaneously, the economy reaps the rewards of innovation, the establishment of new enterprises, and the creation of job opportunities. For example, undertaking specialised design or engineering tasks of providing technological help during various stages of plant establishment and operation or providing technical information services.

One of the primary advantages of technology transfer under IPR is that it allows businesses to enter new markets and expand their operations. A pharmaceutical business, for example, may license an innovative drug to a company in another country, allowing that company to produce and sell the drug in that market. This can help the pharmaceutical business generate income and profits while also providing various therapies to patients. Additionally, it is essential for fostering development and economic prosperity. Companies can contribute to the capacity building of regional firms and industries, generating new employment and boosting economic activity, by sharing their technology and experience. This is crucial in underdeveloped nations, where access to technology and knowledge is frequently constrained.

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<sup>2</sup> Linsu Kim, *Technology Transfer & Intellectual Property Rights* (The Korean Experience, 2003).

➤ **Challenges Faced:**

The cost incurred while conducting Research and development is costly as technological advanced resources are required which would add a financial burden on the institution as well as experts from different sector would also be required for collaboration as well as risky as the uncertainty of whether a novel concept or idea will work as intended or achieve its objectives adds a significant level of risk as well as The long development cycles can make it difficult to predict market conditions or technological advancements that might impact the project's success. It is challenging to accurately predict the time required for R&D activities like testing, prototyping, and optimisation, making it difficult to adhere strictly to predefined schedules. Compliance with various legal and regulatory requirements adds complexity and delays to the transfer, impacting the adherence to predefined schedules. Unethical competition can involve the theft or unauthorised use of intellectual property, such as patents, trade secrets, copyrights, or trademarks. This theft can occur during the technology transfer process, jeopardising the rights and value of the technology being transferred. Unethical competitors may breach confidentiality agreements that are typically a part of technology transfer transactions. Sharing or leaking proprietary information to unauthorised parties can lead to IP infringement and compromise the competitive advantage of the original technology owner. Unethical competition may involve unfair practices such as false advertising, misleading claims, or deceptive marketing strategies that attempt to siphon customers away from the original technology owner. Strong legal frameworks<sup>3</sup>, unambiguous contracts, efficient monitoring systems, and stringent enforcement of intellectual property rights are necessary to address these issues. Technology transfer companies must also put a high priority on cybersecurity measures to safeguard private information and guard against hacks that could result in illegal competition and infringement.

➤ **A Few Challenges while conducting the research were:**

While researching matters pertaining to transfer of technology the first challenge identified was the requirement of a universal guide which would help the upcoming companies who are looking forward for technology transfer, it would set a base and would help them navigate through the scattered laws for transfer technology in intellectual property.

At times, it becomes a challenge to navigate through different legal frameworks across

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<sup>3</sup> The Foreign Exchange Management Act, 1999 (Act of 42 of 1999), Schedule 7.

different jurisdictions, as they have their own patent laws and copyright rules, which make technology transfer difficult for execution.

As there is a rapid evolution in emerging fields like artificial intelligence, maintaining similar legal frameworks to accommodate new developments, the laws for the transfer of technology should also be at par with them. There can also be uncertainty while conducting development in regards of technology transfer, which differs from country to country; thus, this is where the few challenges I personally identified.

Types of intellectual property in the context of Technology transfer can be categorised as follows:

- **Technology advancements:** This occurs when a firm or institution patents an invention and licenses it to other businesses. It is a prevalent practice for academic-related concepts because institutions are not engaged in producing the innovations directly. Rather, their objective is to introduce these inventions to the market.
- **Market Driven Innovation:** refers to the creation of new technologies in response to the demand for a product or service. It stands as the most widely adopted method of technology transfer as it propels innovation to align with market requirements.
- **Technical effects:** Interactions in technology arise when recent advancements in one domain contribute to advancements in another. A “spillover” occurs when concepts disseminate from one area to another or when technology is shared internationally.
- **Phases of technology transfer:**<sup>4</sup> Technology transfer activities can be broadly understood in three phases: preparatory, implementation, and application. These stages are influenced by diverse factors, including technical, structural, and ecological prospects. Further we will discuss them broadly these phases are fundamental to ensure a smooth and effective transfer of technology from one entity or organisation to another.
- **Preparation Phase:** This phase begins with the assessment and evaluation of the technology to be transferred. The technology is analysed for its potential,

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<sup>4</sup> Commercialisation of intellectual property, available at [https://blog.ipleaders.in/commercialisation-of-intellectual-property-alchemy-ideas-into-income/#5\\_Technology\\_transfer\\_agreements](https://blog.ipleaders.in/commercialisation-of-intellectual-property-alchemy-ideas-into-income/#5_Technology_transfer_agreements) (modified at February 8, 2022)

relevance, and compatibility with the recipient's needs and capabilities. As well as a comprehensive study is conducted to determine the viability of the technology transfer, which includes evaluating technical, financial, legal, and operational aspects. Further identification and evaluation of IPR associated with the technology, including patents, copyrights, or trade secrets, to ensure appropriate legal considerations during the transfer process. The documentation of the technology, its specifications, procedures, and any associated intellectual property rights. Standardisation of the technology to facilitate for smooth, structured transfer process.

- **Installation Phase:** In this phase, the technology is adapted and customised to suit the recipient's requirements, infrastructure, and specific conditions. Guidance/ Training programs are conducted to equip participants with the requisite skills and knowledge for the efficient implementation as well as utilisation of the transferred technology. The initial testing and validation of the technology within a controlled environment to identify any potential threats, refine the implementation process, and ensure functionality is executed. And then integration of the technology into the recipient's existing systems, processes, or operations, followed by a gradual deployment and scaling up for wider utilisation.
- **Utilisation Phase:** After adopting the technology, continuous monitoring of the technology's performance and its impact on the recipient's operations, along with evaluating the intended outcomes and benefits. After utilising the required technology, feedback from users and stakeholders is gathered to pinpoint aspects for enhancement. Subsequent adjustments are then made to optimise the technology's performance and usability. And through the feedback received, improvements are made by also ensuring that the sustainable utilisation of the technology, maximising its benefits, and exploring opportunities for further growth, innovation, or expansion in the recipient's context is been done.

### **Procedure for Technology Transfer<sup>5</sup>**

Technology knowledge and information can be shared informally through the transfer of skills

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<sup>5</sup> Kamal Saggi, "International technology transfer and the technology gap" 55, *Journal of Development Economics* 369-398 (1998).

and formally through technology transfer agreements. The translation of an innovation is a difficult and drawn-out process. An overview of the technology transfer process is provided here, along with a brief explanation of each phase.

- 1. Analysis and Unveiling**– Journey of turning an academic-based invention into a commercial reality typically begins in the research laboratory. Here, a collaborative effort involving both faculty members and students from various academic disciplines takes place. Their exploration often starts with identifying a problem or recognising a specific need.

Together, they delve deeper into understanding the intricacies of the challenge. Once the issue is clearly defined, the inventive minds within the lab work collectively to conceptualise viable solutions. It's a human-centred process that combines expertise from diverse fields to pave the way for innovative solutions with the potential for commercialisation. Researchers analyse whether the idea & data collected can be practically implemented, if it aligns with existing technologies or requires new developments, and if there is a potential market demand or application. Collaborations can bring diverse expertise to the project and increase its credibility and potential for success in the use of the technology.

- 2. Innovation and Publication** – When academic personnel, employees, or learners embark on a project with potential market worth, it becomes essential to submit an Invention Disclosure Form (IDF) to the institution's office overseeing inventions, commonly denoted as the Technology Transfer Office (TTO) (might differ from university to university)<sup>6</sup> This document would contain a detailed description of the invention, including its purpose, structure, operations, and any other relevant information.

It serves as the starting point for the Technology Transfer Office (TTO) to kick-start the technology transfer process. It is worth noting that without this Invention Disclosure Form (IDF) from the inventors, the TTO cannot begin evaluating any inventions. It is essential to recognise that although this document holds significance, it fails to assist in protecting the intellectual property of the academic authority. Its primary purpose is to facilitate the institutional processes related to technology transfer, ensuring that the necessary steps are initiated to explore the potential of your

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<sup>6</sup> Darrell M. West, "Improving University Technology Transfer and Commercialization" 20 (2012).

invention.<sup>7</sup>

3. **Further Examination by TTO** – The staff at the Technology Transfer Office (TTO) will assess the innovation relying on data provided by the researchers. This involves considerations of originality, eligibility for a patent, and prospective commercial feasibility, market value, and additional elements to determine whether the university should pursue IP protection and further development. If the invention is deemed patentable, the technology transfer office assists in preparing and filing a patent application. This application includes a detailed description of the invention and its claims, which define the legal boundaries of the protected invention.
4. **Safeguarding of Intellectual Property** – When the association chooses to finance intellectual property (IP) after further examination, the next step involves collaboration with legal experts to prepare necessary documents. It is essential to note that the concept of invention and authorship represents distinct aspects of involvement in a research project. This distinction is not just a technicality; it holds significant legal implications. Incorrectly attributing inventors could potentially lead to the invalidation of subsequent patents. Therefore, ensuring the accurate identification of individuals who have contributed to the invention is a critical legal matter in this process.
5. **Commercialization** – Following the initiation of intellectual property (IP) protection, the Office of Technology Transfer (OTT) will innate with marketing and commercialisation. This can be executed by collaborating with external corporate partners and engaging with the inventors.<sup>8</sup> Various factors will be assessed, including the technology's development stage and its readiness for the market. Subsequently, a decision on the involvement of corporate collaborators in the development and marketing process will be reached through consultations with the inventors.<sup>9</sup>
6. **Revenue Management** – In the event that the external corporate collaborator successfully commercialises the university-developed technology and generates revenue, a pre-established percentage of that income is designated to be shared with the university. The precise percentage is established through negotiations between the

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<sup>7</sup> Rupinder Tewari, *Foundation for Innovation and Technology Transfer (Fitt): A Case Study on Industry–Academia Interface in India*, (Vol. 06, 2016).

<sup>8</sup> Yung-Chi Shen, “Toward successful commercialization of university technology: Performance drivers of university technology transfer in Taiwan” 92 *TFSC* 25-39 (2015).

<sup>9</sup> Ravi R. Chinta, “International technology transfer: strategies for success” 4 *Academy of Management* (1990).

Office of Technology Transfer (OTT) and the corporate collaborator.

- **How does Technology transfer take place in India?<sup>10</sup>**

An agreement called termed as "technology transfer agreement" (or "TTA") is utilized for transferring of proprietary assets from one entity to another is encapsulated by the term "Technology Transfer Agreement" (TTA), which encompasses a diverse array of contracts delineating the transference of ownership or the entitlement to utilize technology from one association to another. As required by FEMA, the automated route and RBI approval are used to approve an international technical partnership.

Any additional request for international technology contracts that do not meet the criteria for required permissions is evaluated on its merits by the Project Approval Board (PAB). According to the Secretariat for Industrial Assistance, applications for such concepts should be filed in Form FC/IL (SIA) to the Department of Industrial Policy Promotion, Ministry of Industry, Udyog Bhawan. According to the Industrial Assistance Secretariat, there are no costs involved. After applying, the approval process takes four weeks.

International financial or technical collaborators who have engaged in prior business dealings with India or possess affiliations with the country are bound by the ensuing regulations:

- An individual is ineligible for Foreign Direct Investment (FDI) and/or technical collaboration through an automated process if they currently possess or have had joint ventures, technology exchange accords, or trademark pacts within the same or related industries in India, either presently or in the past.
- In the case of collaborative ventures or accords involving the exchange of technology (inclusive of trademarks), technology suppliers aspiring for the category of suppliers are obligated to seek approval from FIPB/PAB. Furthermore, they must furnish a comprehensive rationale justifying the necessity to establish a new joint venture or embark on a fresh technology transfer endeavour.
- This obligation is firmly on such investors/technology suppliers to prove beyond a reasonable doubt that the new plan would not adversely affect the concerns of the current joint venture, intellectual property collaborator, or other vested parties' interests. The

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<sup>10</sup> Srijit Mukherjee and Sudipta Bhattacharjee, *Technology Transfer and the Intellectual Property Issues Emerging from It - An Analysis from a Developing Country Perspective*. (9, 2004).

application may be accepted with or without conditions by the FIPB/PAB, or it may be rejected outright with grounds that are adequately documented.

- **Regulations for technology transfer in India<sup>11</sup>:**

- In case of agreements, the comprehensive legislation in India that governs contracts is the Indian Contract Act, 1972. Further, the Patents Act, 1970, the Trademarks Act, 1999, and the Copyright Act, 1957 specify the procedures for transferring IPRS and form a part of Technology Transfer Regulations in India, and all are governed and protected under the IPR in India.
- By the Patents Act, any stake in a patent, encompassing an assignment or licensing agreement, must be formalised through a written instrument that delineates all the stipulations regulating the rights and responsibilities of the involved parties. This documentation necessitates registration with the Patent Authority.
- *“A registered trademark may be transferred /assigned under the Act with or without the goodwill of the business. To prove ownership of the registered mark, the assignment must be registered. The Copyright Act states that an author may grant their rights to third parties for commercial exploitation in exchange for a one-time payment. Assignments of copyright must be made in writing and bear the assignor's signature. The author's title, the rights given, the duration of the assignment, its territorial reach, the term of the assignment, and any royalties owed to the author must all be specified in the deed of assignment.*
- *According to Section 3(5) (a) to (f) of the Act, a technology owner is fully entitled to prevent any violation of their rights and to apply reasonable restrictions that are only required to safeguard those rights. The Act formulated the Competition Commission of India, which is entrusted with prohibiting anticompetitive agreements that have the potential to have a significant adverse effect on market competition and preventing firms from abusing their dominant position. Complex interactions between Indian patent laws, Copyright rules, and Trade secret protection measures in the context of Technology Transfer in IP<sup>12</sup>”*
- The complex interactions between Indian patent laws, copyright rules, and trade

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<sup>11</sup> Chawla “Managing Intellectual Property Rights for Better Transfer and Commercialization of Agricultural Technologies”, CSIR (2007).

<sup>12</sup> The Foreign Exchange Management (Current Account Transactions) Rules, 2000, Item 8 of Schedule II.

secret protection measures significantly impact technology transfer in the realm of intellectual property (IP). Understanding these interactions is crucial when engaging in technology transfer activities. Certain technologies or innovations may qualify for patent protection and copyright protections simultaneously. For example, computer software may be protected by both copyright and patent rights. When transferring such technology, parties must identify which aspects are subject to patent licensing and which fall under copyright licensing.<sup>13</sup>

- In some cases, a technology transfer may involve a combination of patented inventions, copyrighted materials, and trade secrets. Managing these different forms of IP within a cohesive IP strategy is critical to ensure comprehensive protection and maximise value in the technology transfer process.

### **Case Studies: Legalisation and Regulatory Considerations in Technology Transfer:**

#### **Memory Form by NASA<sup>14</sup>**

- Memory foam was developed by researchers supported by NASA, aiming to provide comfort for pilots undergoing tests in flight. Pilots, exposed to significant gravitational forces during take-off and landing, often experienced discomfort and potential injuries. NASA collaborated with Charles Yost, an aeronautical engineer from the Systems Dynamics Group at North American Aviation, Inc., to create airline seat designs that offered protection during crashes and vibrations, along with methods to absorb energy for enhanced safety.
- He formulated memory foam with distinct visco-elastic characteristics, combining softness with robust energy absorption. Ultimately, he developed visco-elastic foam, commonly referred to as "memory" or "temper" foam, a material capable of conforming to the contours of any body. Memory foam is now employed in the production of more comfortable mattresses, sofas, and chairs, as well as supportive footwear, theatre seating, and even football helmets. Despite licensing the technology to various manufacturers, the original inventor continues to remain involved, actively advocating for the use of memory foam in inventive applications.

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<sup>13</sup> Government of India, *National Intellectual Property Rights Policy*, (May, 2016).

<sup>14</sup> Lance B. Bush "An Analysis of NASA Technology Transfer" *NASA Technical Memorandum 110270* (1996).

## **Google<sup>15</sup>**

- Students from prestigious Stanford University, namely Larry Page and Sergey Brin, developed the PageRank internet search engine. Among the biggest, successful, and innovative technical businesses at a global level today and top commercially recognised ideas to obtain a license by an educational institution, Google, we now know that invention.
- The popularity of Page Rank caused Stanford's bandwidth to become overwhelmed, causing the university's internet access to be suspended multiple times. They disclosed their idea to the Office of Technology Licensing (OTL) at Stanford University, which assisted in selling the technology to potential business partners. The OTL was subsequently contacted by a technology company regarding Page Rank, and in exchange for a royalty payment, they granted them a non-exclusive license for the software.
- They initiated Google (derived from "googol," derived from the number 1 along with 100 zeroes), they improvised, advertised, and commercialised the research mechanism because the investors were not appreciating the value of their invention.
- Stanford granted Google a license to use the PageRank algorithm after the company was founded in September 1998. Google rose to become the top search engine in the world in just two years. The same unquenchable curiosity that drove its founders to create the company still drives Google to develop ground-breaking technologies that improve society.

## **Anticipated Changes in Technology Transfer in IP Laws:<sup>16</sup>**

As technology continues to evolve rapidly, several anticipated changes may impact technology transfer in the future. I will discuss some of these anticipated changes below:

- With the emergence of digital technologies such as Machine Learning, Iot (Internet of Things), and distributed ledger systems, there will likely be an increased emphasis

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<sup>15</sup> What is Technology Transfer? available at, <https://gardnerisp.com/what-is-technology-transfer/> (last modified on 2022)

<sup>16</sup> India: Technology Transfer-A Necessity for The Growth Of The World Economy, available at, <https://www.mondaq.com/india/new-technology/1299444/technology-transfer-a-necessity-for-the-growth-of-the-world-economy#:~:text=The%20transfer%20of%20technology%20in,and%20the%20Designs%20Act%2C%202000.> (last modified on 30 March 2023).

on transferring and protecting these technologies. This may involve creating new legal frameworks and regulations to facilitate technology transfer in the digital age.

- As technology transfer often involves the sharing of sensitive information, there will be a growing need to strengthen data protection and privacy laws. Countries and jurisdictions are expected to enact stricter regulations to safeguard the transfer of technology and prevent unauthorised use or disclosure of data.
- The concept of open innovation, where organisations collaborate and share knowledge to accelerate technological advancements, is gaining popularity. IP laws may evolve to encourage and facilitate such collaborations, including the development of licensing models and frameworks that promote technology transfer through open innovation.
- International harmonisation of IP laws is an ongoing process. Anticipated changes may include greater alignment of patent laws, copyright laws, and trademark laws among different countries. This would streamline the technology transfer process and make it easier for businesses to operate on a global scale.
- Technology transfer involves the licensing and commercialisation of intellectual property rights. To ensure effective enforcement of these contracts, IP laws may introduce enhanced provisions on dispute resolution, enforcement mechanisms, and remedies in case of infringement.

It is important to note that the specific changes in technology transfer and IP laws may vary depending on the jurisdiction. In India, the key legislation governing technology transfer and IP laws is the Indian Patent Act, 1970<sup>17</sup> The Copyright Act, 1957,<sup>18</sup> and the Trademarks Act, 1999<sup>19</sup>. The jurisdiction of the court for IP matters will depend on the type of intellectual property being transferred and the nature of the dispute. For example, the High Court has jurisdiction for patent and trademark disputes, while copyright disputes can be heard by both the High Court and the Copyright Board.

## **CONCLUSION:**

Ensuring that technology developed by academic institutions benefits society and is effectively commercialised requires a robust technology transfer policy. Employing a comprehensive process map with a clear sequence of tasks is instrumental in initiating and

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<sup>17</sup> The Patents Act, 1970 (Act 39 of 1970).

<sup>18</sup> The Copyright Act, 1957 (Act 14 of 1957).

<sup>19</sup> The Trademarks Act, 1999 (Act 47 of 1999).

expediting technology transfer, effectively addressing challenges in the process.

Businesses often employ a control-tower method, bringing together a group of leading professionals, along with organizing hackathons using current process maps, aims to identify best practices for streamlined transfers. This involves setting up a knowledge management framework and utilising digital and advanced analytics tools.

The ultimate value and financial reward for intellectual property (IP) rights holders stem exclusively from the successful commercialisation of these technologies.

The country's current IP assets should be capitalised with a focused effort. Entrepreneurship needs to be promoted to realise the full financial potential of IPRS. IP-focused services should be added to existing entrepreneurship promotion tools like incubators and accelerators. A public platform should be created so that it may serve as a shared database of IPRs.

A platform like this can facilitate connections between inventors and producers and potential consumers, buyers, and funding sources.

Identifying white spaces in the technology landscape would be beneficial for promoting new activities in untapped areas. Novel and developing technologies, such as nanotechnology, biotechnology, agribiotechnology, life sciences, green technologies, telecommunications, novel materials, and space technologies, all have significant innovation potential. And for further development, technology transfer agreements need to address patent and copyright rights separately. The terms and conditions for each type of IP need to be clearly outlined, including compensation, duration, and permitted usage. It becomes essential to ensure that the licensing agreements respect the provisions of the applicable patent or copyright laws.