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CREATING AND EMBEDDING AN INTELLECTUAL PROPERTY RIGHTS  
(IPRS) POLICY IN AN EDUCATIONAL OR PUBLICLY FUNDED RESEARCH  
AND DEVELOPMENT INSTITUTION

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## INTRODUCTION

1. It is well recognized that in today's world sustained competitive advantage depends essentially on the ability of organizations to create, manage and market "value-added" knowledge-based or intellectual assets to derive "first in the market" advantage. As fountainheads of excellence and wellsprings of knowledge, educational institutions play a key role in developing and nurturing, in an organized manner, human resources needed for creating high value-adding employees and entrepreneurs for the marketplace.
2. In the context of a widening and deepening university-industry interface, there has been a significant rise in industrial consultancy assignments, contract research, sponsored collaborations, and creation of cross-functional, multi-disciplinary teams with university and industry participation. Through such working relationships, the industry gains access to world-class research resources and the best of human minds while, at the same time, students, researchers and faculty in academic institutions discover an additional sense of purpose, gain exposure to demands of market realities, expand their knowledge base to create new products and technologies and also explore new career options. Such symbiotic relationships pave the way to productive knowledge networks, enrichment of the educational systems with the experiences and needs of the real business world, creation of well-prepared human resources, and, last but not the least, the nurturing of an innovation culture.
3. A prerequisite for a harmonious working relationship between industry and academia is a clear, cogent and transparent framework for "ownership" of the new or original knowledge for "fair sharing of benefits" resulting from the commercial or business application of the research results of their joint endeavours. In a close working relationship, the collaborating partners need to freely share their respective knowledge, information and resources. To sustain creativity and innovation in such a working paradigm, using the system of intellectual property rights (IPRs) for fair and equitable sharing of benefits of new or original knowledge is a dire necessity in today's environment. This requires a paradigm shift in the value system of researchers in academic institutions. Only then can they hope to learn the art of maximizing value creation and realize tangible financial benefits from their intellectual assets.
4. Managing all types of knowledge-related activities such as, creating, using, sharing, accessing, valuing and trading, depends on a proper understanding and appreciation of the system of IPRs. Therefore, all features of the IPRs system are inseparable from that of knowledge management, as the IPRs system significantly influences the conception and strategic implementation of any research and development project or new product development project. Mapping ownership of knowledge ensures that there are no infringing overlaps and if there are any then appropriate arrangements are worked out to avoid disputes and litigation.
5. It is, therefore, imperative that national government, the private sector, and academic institutions put in a focused and cooperative effort to speedily evolve guidelines for implementing IPRs policies in educational and publicly-funded Research and Development institutions.

6. The primary aim of an institutional IPRs policy is to create an enabling environment that recognizes and values creativity and innovation, and simultaneously assists in translating these in an orderly fashion into products, processes and services for the widest public good.

A good institutional IPRs policy sets forth transparent guidelines and benchmarks for ownership, protection and commercialization of the developed Intellectual Property (IP) while, at the same time, upholds the core moral values of students, academic researchers and faculty, such as integrity, merit, academic freedom, and pursuit of excellence. Such a formalized platform helps immensely in preparing the students, researchers and faculty alike to meet the growing demands of the emerging knowledge economy, and to synergies effectively the transfer of technology from the laboratory to industry and business for maximizing value realization of their creative and innovative output and results for the benefit of both the institution and themselves. Further, it helps to create an ambience that promotes and nurtures the emergence of new ideas, new lines of enquiry and research, scholarship and its practical application for solving technological problems; and this, in turn, promotes the emergence of the leaders and innovators of tomorrow.

#### A FRAMEWORK APPROACH TO FORMULATION OF INSTITUTIONAL IPRS POLICY

7. Based on the author's experience of contributing to such activities in a few academic institutions in India, a broad framework for the formulation and implementation of an Institutional IPRs Policy is presented below:

- Identify a centralized office with executive authority, such as the Office of the Dean of Research and Development, the Dean of Academic Activities or equivalents whose role is to (a) facilitate systematic, timely development and utilization of institutional IPR assets; (b) promote the harmonious development of institutional IPRs policy, and related institutional systems and processes; (c) provide guidance, support and appropriate expert resources for identification, protection, use, management and transfer of IPR assets;
- Create awareness of the importance and role of IPRs;
- Define the rights and responsibilities of all involved;
- Ensure transparency and fairness of the IPRs policy to encourage compliance and solicit feedback regarding the fulfillment of the objectives of the IPRs policy; and
- Institute a review mechanism of the policy for fine-tuning and improvement to ensure "relevance" of the policy to the changing environment and evolving needs.

8. For success of an IPRs policy formulation and implementation process, a priority status needs to be given to the process by the head of the institution, such as the Vice Chancellor of the university, the Director of the institute and/or all the associated key functional heads, such as Deans of Academics, Administration, R&D, etc.

9. The process of policy formulation is best initiated with the formation of a formal cross-functional core team of faculty, researchers, and students, including in-house IPRs professionals, to identify and address:

- all issues concerning the activities of the institution related to the creation and exploitation of intellectual assets,
- avenues for interfacing with the external world through contracts and agreements,
- modes of procuring and utilizing grants,
- modes of identification and disclosure of intellectual assets created that are potentially valuable IPRs,
- issues related to ownership of research results and options available for their conversion to intellectual property rights(IPRs),
- valuation of IPRs,
- Memoranda of Understanding (MOUs) governing research contracts,
- Terms and conditions of IPRs ownership,
- transfer of technology / IPRs,
- revenue sharing relating to commercialization of IPRs,
- resolution of possible conflict of interest, and
- avoid infringement of IPRs of others, and consequent damages, liabilities, etc.

10. The core team should also be entrusted with a time-bound task of drafting an institutional IPRs policy, establishing an IPR Management Committee with structured and focused executive roles, signing authorities for agreements, MOUs, channel of reporting/ communication together with templates and guidelines to be followed in the institution. The draft policy drafted by the core team should next be presented to the academic and administrative community of the institution for open debates and workshops so as to invite real-time, grass root feedback. This process ensures that the needs of a cross section of all the stakeholders are addressed. Next, it should be pilot-tested in selected departments to assess its workability and for making necessary improvements before its full fledged implementation.

#### KEY PARTS OF AN IPR POLICY

11. To achieve consistency in the understanding and interpretation of the professional and legal terminology especially related to IPRs, the institutional IPRs policy should provide a glossary of all the relevant terms. Further, to make the IPRs policy document user-friendly, illustrate the use of the provisions of the policy by using typical examples so that all potential users of the policy are able to relate to its provisions in a practical manner.

#### TYPICAL FEATURES OF AN INSTITUTIONAL IPRs POLICY

##### Scope and Applicability

12. The policy should cover all institutional personnel including institutional faculty, staff or visiting faculty, researchers and scientists.

*Ownership and Assignment of Rights*

13. It is important to establish ownership criteria for the creative works, created singly or jointly by institutional personnel, with or without significant use of institutional resources.

This is also the case for creative works produced during the course of sponsored and/or collaborative activity or based on specific provisions related to IP assets resulting from contracts governing sponsored and/or collaborative activity.

14. It is equally important to define transparent criteria for terms and conditions under which the institution would be the owner of the IPRs and the situation in which the inventor or creator would have the right or privilege to be the owners of the IPRs that he/she created. However, the institution may decide that it shall retain a non-exclusive, free of charge, and an irrevocable license to copy or use the work for teaching and research activities of all IPRs produced in the institution.

*Secrecy and Confidentiality*

15. It is critically important that the IPRs policy has an unambiguous section dealing with maintaining and enforcing secrecy and confidentiality. This section would have all the conditions for maintenance of secrecy and confidentiality, especially in relation to ongoing R & D work and related laboratory note books, presenting technical papers in conferences, seminars, and other such events, publishing technical or journalistic articles, and in contracts involving third parties.

*Disclosure: Establishing Inventor-friendly Infrastructure and Processes*

16. The process of disclosure, for example, may be initiated by using a well-designed Invention Disclosure Form. This may be followed by its formal evaluation by a duly constituted committee whose objective should be to advise the executive authority responsible for the administrative aspects of institutional IPRs (for example, the Dean of R&D, or the Academic Dean, or the Head of the Technology Transfer Office) as to whether the institution should take the responsibility to protect the invention by IPRs or give up its IPRs ownership so that the protection can be initiated by the inventors if they so desire.

17. The committee should have clear guidelines for evaluation of the disclosure for its novelty and patentability, for example, by using the inputs from an IPRs expert, and for assessment of its commercial potential. Assignment to the institution of all the rights to the creative/innovative output or research results should take place at this stage. If the committee concludes that the institution should not take up the responsibility for the purpose of IPR protection, then the inventor(s)/creators can protect their work on their own; under these circumstances the institution would not claim any share of proceeds earned through the use or commercialization of such IPRs.

18. If the institution opts to protect the creative work/invention, it should provide at its own cost the services of an IPR Advisor/IPR Attorney for drafting/ prosecution of the intellectual Property (IP) application(s) and also provide adequate funds for making payments

for accessing the relevant IP databases for this purpose. The inventor(s)/creators, however, would have to conduct or participate in conducting the relevant searches, analysis of the 'prior art' and assist in the drafting of the IP application.

19. Specific criteria should be laid down for foreign filings of IPRs applications in view of the fairly high associated costs.

20. When the institution takes on the responsibility for obtaining formal protection of IPRs, then it should bear all the associated costs related to the renewal fees, other official fees and attorney fees. However, if the institution decides not to protect the innovations and the creators as per decision of the committee undertakes the protection activity, or the institution reassigns the rights to the inventor(s)/creators, then all expenses will have to be borne by the inventors/creators.

### Commercialization of IPRs

21. The executive authority in the institution responsible for the administration of IPRs policy would normally have the responsibility to oversee the marketing of the IPRs and identify potential licensees for the IPRs it owns. The creators(s)/inventors would be expected to actively participate in this process. Alternatively, the institution may contract the services of a Technology Management Agency to manage and commercialize its IP assets. The inventors/creators may also be permitted to contact potential licensees but would be expected to follow the guidelines concerning confidentiality as laid down by the institutional IPRs policy. Optionally, the creators may choose to commercialize their invention(s)/creations through their own start-up companies based on procedures governed by the Institutional Policy on Start-up Companies.

22. On review, if the institution comes to the conclusion that it has not been able to commercialize the work in a reasonable time frame, then it may reassign the rights of the invention/creation to the inventor(s). If the inventor(s)/creators of the work believe that the institution has not been able to commercialize the work in a reasonable time frame, then they may approach the appropriate authority as defined in the IPRs policy for the re-assignment of rights to the invention(s)/creations so that they are able to proceed with its commercialization.

### Benefit Sharing

23. Given the importance of money, this section needs to be formulated with extreme care and transparency. The main questions to be addressed are related to the valuation of IP assets, appropriate and legally enforceable clauses in the contracts/agreements/MOUs involving institutions, authorized individuals (on behalf of the institution) for signing of contracts, time duration of the benefits, basis for sharing income such as percentages of earnings/net earnings. The revenue sharing model must be harmonized with the institutional personnel policies, existing tax laws, etc.

24. Poor drafting of this section of the policy can be damaging to the institution and the individuals involved. It must also keep in mind the spirit of the institutional vision and mission and should be geared to help to synergies teamwork and enhance respect for each others' knowledge and contributions. For example, co-inventors/co-

creators, for sake of transparency and clarity, may be required to sign at the time of disclosure, a Distribution of IP Earnings Agreement, which should specify the distribution arrangement of the earnings related to the relevant IP assets amongst the co-inventor/creator. The co-inventors/co-creators would be expected to reach an agreement on the percentages based on some structured criteria to avoid *ad hoc* decisions. Professional help may be made available to the inventors/creators to construct such agreements.

*Other Administrative Aspects of an Institutional IPRs Policy*

25. The other relevant sections of the institutional IPR policy should deal with “*Infringements, Damages, Liability and Indemnity Insurance*” that harmonize with the laws of the land. It is recommended that any contract between the licensee and the institution should include the grant of an indemnity and release by users in favor of the institution indemnifying and releasing the institution of any loss or damage.

26. Similarly, appropriate clauses need to be drafted in a section dealing with conflict of interest, as it is of significance that the personnel involved in IPRs transactions disclose any conflict of interest or potential conflict of interest. Such situations may arise when the inventor(s)/creators and/or their immediate family have a stake in a licensee or potential licensee company.

27. Transparent dispute resolution mechanisms need to be established so that any disputes concerning the decisions related to the institutional IPRs policy and its management may be reviewed by or appealed to an appropriate authority designated for this purpose. The designated authority may be in the form an arbitration panel whose decision may be considered as final and binding on the parties within the institution involved in the dispute. The disputes may, for example, be about inventorship/authorship or benefit sharing.

28. An area of constant debate while formulating MOUs, especially when dealing with R&D funding organizations, is jurisdiction *for legal purposes*. As a matter of policy, all agreements to be signed by the institution must have a jurisdiction of its choice so that it is guided by legal principles of the region and the county in which it operates. In several matters related to IPRs, agencies that fund activities may insist on jurisdictions of their own choice. However, the institutional IPRs policy must clearly provide various avenues acceptable to it to guide the negotiation process before entering into any contracts with other institutions or enterprises.

29. No institutional IPRs policy is complete without a section on compliance. The policy must indicate the consequences of non-compliance, including disciplinary/punitive actions, if any. This is significant as the IPRs policy as endorsed and approved by a central body, such as the governing council/governing board/senate or any other appropriate administrative authority becomes a binding document for all IPRs related activities within the institution.

## CASE STUDY: THE INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY (IITB)

30. *The Indian Institute of Technology, Bombay (IITB)* is one of the leading technology training institutes in India. In the last two years it has integrated IPRs into its education and R&D programs. It has formulated an institutional IPRs policy that has been endorsed by its board of governors, introduced an elective course on IPRs for technology development and management as a formal part of the engineering degree courses, set up a structured cell to coordinate IPRs related activities and conducted training programs in the institution to implement its IPRs policy. It is also gearing up an organizational framework for the incubation and commercialization of the institutional innovations through start-up companies set up by student/faculty.

31. The initial results are very encouraging. In the first 20 months, the IITB has filed over 23 patent applications in India, and a selected number abroad through the PCT route, apart from some directly in the USA. A direct impact of the IPRs policy and its related activities is the increasing number of projects of undergraduate students that have resulted in filing of patent applications. This cascading effect is nurturing a nascent IPRs culture in the institute. The institution has also established formal linkages with a few “technology transfer agencies” to market its technologies. A focus on commercialization of its IPRs is developing as it approaches the future with a sense of confidence and commitment.

32. IITB has provided the author a platform to experience the reaction to an IPRs policy of professionals coming from different fields of technology, diverse conceptual and ideological frameworks and beliefs. This has further re-enforced the view that successful IPRs policy formulation requires a systematic and structured process to be followed for it to strike roots in the institution. Transplantation of another institution’s IPRs policy may not yield the desired results even though the generic aspects or the framework described above may be common knowledge. The approach followed at IITB is what has been described in summary in this article. In the author’s view, it could serve as a model for creating and embedding an IPRs policy in any educational institution anywhere, as a participatory, broad-based, evolutionary approach alone can ensure that the IPRs policy is tailored to respond to the specific requirements of an institution, its employees, and students; at the same time, it ensures that the institutional IPRs policy so developed is fully owned by its potential users and beneficiaries.

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