

# **Guidelines for Technology Transfer /Commercialization 2023**



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## CHAPTER 1: INTRODUCTION

With the time, various technologies are being developed in Agricultural universities and ICAR. These technologies are transferred to field or commercialize to provide benefits to ultimate beneficiaries. In this regard ICAR developed various guidelines time to time like ICAR Society, 2000, the ICAR Guidelines for Filing Patent Applications, 2001 (amended in 2003), and Guidelines for Intellectual Property Management and Technology Transfer/ Commercialization (IPMTT/C) in the ICAR system. These IPMTT/C guidelines were implemented in 2006 and included a policy framework for systematic management of the intellectual property available and created by researchers in the ICAR institutes, and provide the institutional mechanism with procedures for a professional approach to ICAR's intellectual properties.

In spite of establishment of the institutional mechanisms for technology management and transfer in ICAR and SAU's ICAR realized the need of professional inputs and a very different set of skills from those, which the scientists of ICAR and SAU's as a Research and Development (R&D) organization are expected to possess. Therefore, ICAR constituted Agrinnovate India Limited (AgIn), a registered Company owned by Government of India in DARE with the aims to work on the strengths of ICAR/ SAU's and promote the development and spread of R&D outcomes through IPR protection, commercialization and forging partnerships both in the country and outside for the public benefit.

Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut established in 2000 constituted a University Technology Management Unit (UTMU) in 2008 to handle the issues related to technologies developed by the university. Considering the up-coming new technologies which can be commercialized the detailed guidelines are required to transfer technology. In this context, Technology Transfer Committee (TTC) was constituted by the competent authority which is in line with ICAR guidelines for promoting and commercializing university technologies.

TTC realized that presently the professional inputs and a set of skills required for the commercialization of the technologies and IPR issues are not available in university as mandate. Therefore, TTC formed present guidelines in line with ICAR guidelines(2018) to promote technologies either through university or preferably by Agrinnovate India Limited (AgIn), a registered Company owned by Government of India in DARE.

## CHAPTER 2: TECHNOLOGY TRANSFER: COMMERCIALIZATION OF IP/TECHNOLOGIES

### Introduction

This chapter describes the procedures for technology transfer through commercialization. The university will have two tier system for the transfer of technology or their commercialization. It will include University technology management unit (UTMU) at central level and College Technology Management unit (CTMU) at college level.

**University technology management unit (UTMU):** University will establish a University technology management unit (UTMU) at Directorate of Research for IP management and technology transfer/ commercialization. The UTMU will function as the central hub for the management of IPR portfolio and commercialization of IPR enabled technologies of university acquired from its colleges/zonal research centers. The UTMU will discharge day to day functions for the management of IPR portfolio and commercialization of IPR enabled university technologies. The composition of the UTMU will be as under:

1. Director Research – Chairman
2. Dean of the respective colleges
3. Finance Comptroller
4. Members of the present TTC (Representatives of the colleges)
5. Inventor of the technology
6. Vice Chancellor nominee

**Functions of the UTMU:** The UTMU will undertake all such activities as may contribute to improved management of IP and spread of IPR enabled technologies in an effective and efficient manner. The following indicative functions of UTMU are listed.

1. To develop and evolve mechanism for the disclosure of IP generated in University, its assignment for commercialization, valuation, pricing, licensing, patent/IP watch, market watch, and preventive and legal action to safeguard/defend the IP.
2. To seek IPR protection for the IP generated in University which is protectable and worth protecting, and to maintain the IPR titles under the law.
3. To explore commercialization/licensing of IP generated in University and its know-how in India and abroad; to suitably negotiate, enter into licensing contracts, and do the necessary follow up.
4. To provide need based guidance/assistance for capacity building to colleges/ research centers and potential clients. This would include arranging to provide technical assistance, training, assistance in negotiations, and other related assistance in order to enhance capabilities of colleges/ research centers and also that of clients/ potential licensees in IPR management.
5. To facilitate research collaboration. To liaise and promote interaction among university scientists and potential clients for exploring the opportunities to jointly address researchable issues to meet the technology generation and up- scaling needs through laboratory research and/or pilot plants.
6. To mobilize financial and other resources for IPR matters. This would include facilitation for priority setting and defining the needs for arranging assistance for IPR matters from the University system and outsourcing.
7. To avoid duplication of efforts, including management efforts aimed at providing efficient and cost-effective services with effective liaison and linkages.
8. To provide guidelines of “best practices” from time to time to promote the interests of IPR portfolio management and technology transfer in agriculture.

9. To include activities aimed at confidence building among the agriculture-based industry for IP transactions for commercial use. This may include information on
  - a. Potential licensees in various areas of interest,
  - b. Methodologies for assessing markets to help understand the current and potential product needs and demand,
  - c. Indicators to understand the value of specific IPR in product development, and make realistic negotiations,
  - d. Comprehensive and effective management of IPR through in-house expertise or mobilization of know-how in matters such as legal and regulatory, technology transfer, market research, etc.
10. To track/cause tracking for patents and licences.
11. To monitor the progress of IP management and commercialization in University.
12. To liaise and network with national and international IP management and commercialization.
13. To facilitate/help in setting up an institution where IP generated by publicly funded institutions can be pooled to advance the excellence in technology generation in agricultural research.
14. To facilitate centralized in-licensing of proprietary research tools by University that may be important for research needs in frontier areas at its institutions.
15. To innovate and adopt a suitable mode in which Consortia of different colleges focusing on particular/frontier areas of agricultural research will be able to operate.
16. To do other things as may be directed and/or relevant for the promotion of management of IPR portfolio and the transfer/commercialization of IPR enabled University technologies.

**College Technology Management Unit (CTMU):** For Intellectual Property Management and Technology Transfer/ Commercialization’ a College level Technology Management Unit (CTMU) will be constituted for every college. College technology management Unit (CTMU) is the highest decision-making body to all the issues of IP management and technology transfer/ commercialization for the respective college. The CTMUs will discharge day to day functions for the management of IPR portfolio and commercialization of IPR enabled College technologies. The composition of the CTMU will be as under:

1. Dean of the concerned college – Chairman
2. Head of the Departments (02)- Nominated by Dean of the College
3. Inventor of the technology
4. Head of the department of the proposed technology
5. Director Research or nominee

#### **Procedures for Technology Transfer/Commercialization**

**Central Database of Technologies:** A central database of all technologies will be maintained at the UTMU. The concerned colleges will make entries of all new cases in their respective datasets as soon as the process of technology and variety identification is switched on by the college through CTMU. The concerned CTMU shall communicate a data set to the UTMU for linking with the central database. They shall also update the status of IPR protection/maintenance in the dataset from time to time.

**Transfer of Technologies:** The UTMU in association with CTMU will make efforts for technology commercialization with the primary objective of technology transfer to end-users. Depending upon factors such as the nature of technology, public need or marketing prospects, scale of technology etc. a decision will be taken by the competent authority whether the technology will be placed in the public domain through open access, or it will be transferred to end-users through commercialization.

**Registration of Commercial Entities:** The UTMU shall develop a system of registering industry/enterprises/cooperatives for technology transfer/ commercialization of University technologies.

1. Registration of area/discipline/zone-wise potential licensees from industry/enterprises/cooperatives will be undertaken by inviting applications through advertisement.
2. The registered entities will be informed of the technologies available from time to time for transfer through commercialization.
3. A nominal registration fee may be charged and the registration renewed annually.

**Disclosure of University Technologies:** Concerned CTMU will disclose (Annexure- 1) the salient features of technology ready for commercialization. The technology disclosure for commercialization will be made in a confidential agreement. The CTMU shall supply the catalogue/information to UTMU in the prescribed Technology Disclosure (Annexure 2) form giving its details/specification and potential benefits. The duly completed form shall be submitted by concerned innovator to CTMU which would seek approval of competent authority for nominating the Technology to UTMU. The terms and conditions in the technology disclosure form shall be used as basis for preparation of standard terms.

**Commercializing Technologies:** Commercialization will be undertaken by UTMU in association with the concerned CTMU as per the procedure laid down.

**Techno – Commercial assessment-** After receiving the Technology Disclosure Form from concerned CTMU, UTMU shall constitute a techno-commercial assessment committee with the Approval of Vice Chancellor. The committee shall comprise:

1. Director Research
2. Co-opt a technical expert, if required
3. Special Invitee: Inventor of the technology
4. Dean/ CTMU In-charge of concerned college
5. Commercial Expert nominated by UTMU
6. Finance Comptroller
7. Vice chancellor nominee

The Director Research shall chair the meeting. Meeting can be convened over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

The above committee shall determine the technical feasibility, commercial viability and handholding requirement of the technology. The committee shall also recommend mode of commercialization of technology. In cases where the technology has limited commercial potential, region specific relevance, requires higher level of technical handholding or any such similar requirement for transfer, the committee may recommend its commercialization by the concerned CTMU. However, the procedure as laid down by these guidelines will have to be followed and UTMU should be informed of any progress of commercialization.

**Technology evaluation and Standard Terms:** The expert committee constituted by UTMU shall evaluate (Annexure 3) and value the technology/knowhow/process for its operation, economic, legal and environmental feasibility to develop the standard terms (Annexure 4) in consultation with concerned CTMU.

In case of new technology for domestic commercialization, to evaluate and value the technology, an expert committee shall comprise of

1. Director Research or nominee
2. Co-opt a technical expert, if required
3. Special Invitee: Inventor of the technology
4. Dean/ CTMU In-charge of concerned college
5. Commercial Expert nominated by UTMU
6. Finance Comptroller/nominee

7. Vice chancellor nominee

In case of all the International commercialization, the committee members shall be as follows:

1. Director Research
2. ADG (IP&TM) of ICAR or nominee
3. CEO of AgIn or their nominee
4. Co-opt a technical expert, if required
5. Special Invitee: Inventor of the technology
6. Dean/ CTMU In-charge of concerned college
7. Finance Comptroller

The Vice Chancellor shall chair the meeting. Meeting can be conveyed over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

***Business Development Activities and Prospecting Clients:*** UTMU shall carry out the Business Development activities to reach the potential clients in the following ways,

- a) Web based public announcement/ Newspaper advertisement (Mandatory)
- b) Carry out Business Presentations to interested clients in respective domains.
- c) Mass mail marketing
- d) Participating in industry specific seminars/meets/melas/exhibition
- e) Organizing industry meets with concerned colleges
- f) Others

UTMU/ CTMU may follow any of the above approaches to prospect the clients through business development activities. However, UTMU shall go by the recommendations of the techno commercial assessment committee regarding the mode of commercialization of the technology.

***Expression of Willingness:*** Interested clients shall express their willingness to license the technology to UTMU. In case willingness is received by CTMU the same shall be duly forwarded to UTMU. On receipt of the willingness, UTMU shall take the process to next level as per the guidelines. The expression of willingness shall also contain how the client proposes to produce and market the products using the technology.

***Due Diligence of Clients:*** UTMU /CTMU shall obtain a brief proposal from the client on how the client proposes to commercialize the technology. UTMU /CTMU shall constitute a committee comprising.

1. Innovator of the technology
2. Business Manager of AgIn nominated by CEO AgIn
3. Finance Comptroller
4. Other experts as per requirement

**The committee shall:**

- Decide the broad technical capabilities, financial capabilities, marketing acumen and other parameters to select the client.
- Examine the proposal from client on the broad pre-defined terms to decide on “go” or “no-go” to next stage.

Start-ups shall be encouraged to apply with certain flexibility in their proposal.

Meeting can be conveyed over skype/video conferencing or any other communication medium which is most efficient and effective for the purposes.

***Testing/validation of Products by Clients:*** The clients selected as above may be allowed to carry out due diligence of technology/products for validation of claims made by concerned CTMU. In case the client is interested in getting a sample of the material/product for carrying out testing/validation/others, then the Client shall sign a Material Transfer Agreement with concerned institute along with Confidentiality and Non-Disclosure

Agreement. The Client may visit the concerned laboratory/facility with prior approval of competent authority of the University. However, it is the discretion of innovator to decide the extent of the information to be discussed/ disclosed. In case the client shows disinterest, UTMU shall precede further to prospect other clients.

### **Cost and Pricing of Technology**

Broadly, the worth of a technology will be derived from the likely benefits that may accrue to its end-users. The worth can be best determined on the judgment of technical experts, producers of technology and business managers. There is no standard method or formula for assessing the worth of a technology. Costs and pricing of technology may be determined on a case-to-case basis.

As no standard formulae are available or can be provided for all technologies and situations, the licence fee and/or royalty may be fixed taking into account the considerations of “what the market can bear”, cost factors and public interest issues, if any. The decision of the UTMU, based on holistic assessment and judgement will be final.

The life of a technology in the market will vary and so will its popularity and sales.

The recurring royalties will be mainly based on these factors. Therefore, the modes of payment (licence fee and/or royalty) will be on mutually agreed terms with the licensee, and flexible/ determined on a case-to-case basis rather than rigid. The terms of commercialization may also be revised over time.

**Technology Valuation:** The Techno – Commercial assessment committee and /or committee for developing standard terms will determine the licence fee and royalty and/or sale price of its IPR enabled technologies either on a fixed basis, through negotiations with the licensee, or through an open bidding process as appropriate. Expert opinion and judgment viewpoint together with the following points will be considered in determining the price/licence fee.

4. Cost of IPR protection and maintenance.
5. Cost of production and handling.
6. Other institutional costs as appropriate.

The committee may follow any one or combination of following methods for valuation of the technology:

- *Market Approach:* It measures the present value of technology based on the selling price of similar product/technology in the market.
- *Cost Approach:* The cost approach is based on covering costs of developing a new technology.
  - a) The anticipated future costs of developing similar technologies using the proceeds from the sale of this technology to pay for developing the next one.

Cost plus pricing method may be used to determine the price of raw materials and services.

- *Income Approach:* This approach focuses on estimating the value of the intellectual property/technology based on the income-producing capability of the technology.

With any of the above approaches as a foundation, the license fee range for the technology/product/services shall be estimated by the committee.

### **Licensing of IP**

Licences will be case-specific non-exclusive or exclusive licences. Appropriate joint commercialization agreements would also be entered into.

**Terms of Trade:** Upon the receipt of expression of willingness, UTMU /CTMU shall constitute a committee which shall discuss with client within the parameters set in standard terms. The committee comprises

- Director Research or nominee
- CEO, AgIn



- Dean/ CTMU In-charge of respective college
- Finance Comptroller/nominee

The proceedings of the committee (i.e. terms of trade) shall be comprehensive enough to cover all the agreed terms and conditions for the transactions. The term of trade shall include a short outline of the key terms focusing on the business terms in plain, non-legal language.

The terms of trade, along with other terms, shall include:

- a) Roles of stakeholders
- b) Licence fee and payment schedule
- c) Royalty and payment schedule
- d) Timelines for commercialization
- e) Duration of license and its renewal
- f) Training, handholding and its cost

The proceeding shall also serve the basis for preparation of draft MoU. The terms of trade shall be signed by all the parties.

*Draft Agreement Preparation and Legal Vetting:* The draft agreement shall be prepared on the basis of term of trade. The draft agreement shall be communicated with the CTMU and the client for their consent. On receipt of their consent, UTMU shall arrange for legal vetting of draft agreement. Legal vetting of agreement shall be entrusted with to any empanelled lawyer/ law firm.

*Signing of Agreement:* The agreement shall be signed in presence of all concerned parties through their respective authorized signatories. The transaction shall be presented before the board of management of the University for taking note.

*Handholding Support by Concerned Institute:* Technology shall be transferred and handholding support shall be provided by the university as per terms and conditions of the Licensing agreement. UTMU shall facilitate and coordinate in the matter.

*Acknowledgement of completion of technology transfer:* UTMU /CTMU shall form a committee to review the post signing of agreement. The committee shall comprise.

1. Director Research or their nominee
2. Dean/ CTMU in-charge
3. Others (External experts)

An acknowledgement shall be taken by UTMU /CTMU regarding completion of the process of transfer of technology, material transfer (if any), the required handholding support etc., The acknowledgement shall be signed by all stakeholders.

Normally, non-exclusive licences will be executed for technologies such as inputs (e.g. bio-pesticides or bio-fertilizers) so that these can lead to their wider adoption and thereby maximize research benefits to farmers and other end users. For non- exclusive licenses there will be flexibility in fixing the license fee.

When a technology is licensed through an open tendering/bidding process it will normally be given to one licensee. But depending upon the licensee's manufacturing capacity and size of business, other interested parties from outside the territory of his business/interest may also be considered if the technology has to be rapidly and widely disseminated. Alternately, a sub-licensing clause will be incorporated, which may require the licensee to share a part of the license fee and/or royalty from any sub-licenses that he may enter into with that technology.

Exclusive license will also be issued when

- (i) An technology is to be commercialized in countries abroad, and
- (ii) The technology is to be disseminated in difficult areas offering low incentives. As exclusive licenses are preferential, commensurate license fee and/or royalty will be

negotiated and settled on mutually agreed terms with the licensee.

The duration for which university will issue licenses will also be negotiated with the licensee and settled on mutually agreed terms.

The UTMU will empanel professional consultants and agencies having the necessary experience and proven track record at the national and zonal levels as License Managers for licensing the technologies. Their services will be utilized as and when required by UTMU /CTMU.

Joint commercialization of technologies will be undertaken on mutually agreed terms with another commercial enterprise when a close scientific supervision of scaling up or product development is required or in any other appropriate situation.

The framework for licensing will be developed/refined/evolved by UTMU. In evolving the process, UTMU may also support studies for developing indicative models/case studies for valuation, costing and pricing of technologies of different fields. Suitable models/case studies can be published as reference material.

#### **Implementation of Licences:**

Transfer of technology by UTMU and payments by the licensees will be in accordance with the terms and conditions, including the time limits recorded in the licensing contracts/agreements. If required, the concerned scientists/innovators will demonstrate the technology on lab scale to the licensee under a confidentiality agreement (Annexure 7).

#### **Use of ICAR knowledge/IP by Foreign Clients**

In cases of use of knowledge base by foreign clients for research and/or commercial purposes, all issues relating to contracting, target domain, pricing, payment and ownership of intellectual property will be pre-determined in a Memorandum of Agreement (MOA) signed by University and the foreign client. The terms and conditions, and limitations of the Agreement with prospective foreign client will be set/ negotiated by UTMU. Wherever required Technology Managers/ Licence Managers or IP Consultants may be engaged. Approval of the competent authority in the university shall be essential to proceed for any agreement with foreign clients for commercialization. Nevertheless, all international commercialization/transfer of knowledge shall be managed by UTMU as per the procedure mentioned above.

#### **Monitoring and IP & Market Watch**

A mechanism of monitoring the licensing/commercialization activities in university will be developed by UTMU. This mechanism will include IP and market watch with a view to safeguard university interests and to bring further refinement in their approach to commercialization.

#### **Infringements**

In case of infringement/suspected infringement of any terms or conditions of memorandum of understanding signed by both the parties, UTMU/CTMU will report the case to University Legal cell. University Legal Cell will handle the cases reported to them or other apprehended cases either on their own or with the assistance of AgIn. Further legal action, if required will be taken with the approval of competent authority. All the arbitration will be subject to the jurisdiction of the Allahabad high court.

#### **Socio-Economic Impact**

The UTMU will arrange/ assign case-specific studies to assess socio-economic impact of the commercialized university technologies and any other know-how.

#### **Time-frame for commercialization of university technologies**

The standard operating framework for various activities as per the standard operating framework is given below:

<b>S.No.</b>	<b>Details</b>	<b>Timeline</b>
1	Submission of Technology and Disclosure Form and Costing Sheet to UTMU/Agrinnovate	Zero
2	Clarifications regarding TDF and costing sheet of technologies	1 Month
3	Techno-Commercial Assessment Committee Meeting	1 Month
4	Standard Terms Committee Meeting	
5	Approval of Minutes	
6	Uploading of Standard Terms	2 Week
7	Advertisement and Business Development	2 Week
8	Expression of Willingness	21 Days
9	Due Diligence of the Client	1 Month
10	Terms of Trade Preparation	
11	Approval of Terms of Trade	
12	Draft Legal Agreement and Vetting	
13	Signing of Agreement	

Following steps 2 to 4, the UTMU with the help of its technical commercial assessment committee shall take the following decisions:

- i. Whether the technology is technically and commercially viable for commercialization
- ii. Mode of commercialization
- iii. Valuation
- iv. Standard terms for offering terms of commercialization
- v. Decision regarding whether the commercialization will be carried out by the UTMU or by the AgIn.

Once the UTMU takes a decision to commercialize the technology itself, the rest of the steps shall be followed by UTMU for commercialization of technology. In case a decision has been taken that the technology shall be commercialized by the AgIn, the AgIn shall follow the remaining steps. Whenever they feel that technical expertise is required from AgIn, same may be solicited.

In case no party comes forward expressing willingness for commercialization or in case a party has expressed willingness but does not complete all the required formalities and drops out from the process, the technology can be again posed in the next cycle.

## CHAPTER-2

### TECHNOLOGY TRANSFER: COMMERCIALIZATION OF PLANT VARIETIES

#### **Introduction**

Commercialization of plant varieties procedures is required to insure or to improve access of plant varieties to the end users. As per the decision taken time to time university may decide to place any plant variety solely in the public domain or else it may be licensed for commercial use on exclusive or non-exclusive basis.

#### **Commercialization of Plant Varieties**

**General Considerations:** For commercialization of plant varieties broadly the general guidelines for technology transfer/commercialization of University technologies described in Chapter 1 may be followed.

**Specific Considerations:** University will make the specific considerations in the commercialization of its plant varieties as they can have direct impact on issues of food and nutritional security and farm incomes.

**Other Considerations:** All the registered varieties will be transferred for cultivation and use through open access or commercialization. No plant variety will be transferred/commercialized before its registration and protection under the PPV&FRA Act.

1. University may consider any appropriate proposal for the grant of exclusive licence to a private seed company or public seed agency for commercialization of its protected plant variety abroad. All such varieties of University which have commercialization potential abroad, shall be assigned to AgIn and licensed under suitable arrangements/agreement keeping in view the interest of Indian farmers and national priorities.
2. Advance breeding material or parental lines shall not be transferred/ licensed on exclusive basis. These will first be registered with NBPGR before any material transfer/licensing agreement is to be negotiated/entered into.
3. Normally, commercialization of a University variety will be done by AgIn with the help of CTMU that has secured the PVP title. However, where more than one institutions are involved/interested in the commercialization of the same variety, or where they are given this specific responsibility in public interest by the University, these institutions the sharing arrangements shall suitably be mutually settled before commercialization by UTMU/AgIn.
4. University will obtain assistance/advice of AgIn, if needed, particularly for any legal opinion or market information.
5. The parametric values of all successful licences will be recorded in the UTMU databases.
6. AgIn will evolve a suitable mechanism for quick disposal of plant variety licensing cases.

#### **Licensing of Seed and Planting Material**

**Licensing:** As the University technologies like seed and planting/propagating material have direct impact on the productivity and production in agriculture, their transfer on priority through licensing to various seed producers and distributors shall be facilitated.

**Non-Exclusive Licenses:** University will provide commercial licenses, preferably non-exclusive licenses, for the commercialization of seed/planting material of registered and protected University varieties to any interested party such as the following.

- (i) Central and State Departments of Agriculture on national/state basis for wide dissemination, popularization and public distribution of seeds/propagules for development and cooperation.
- (ii) Public Seed Agencies – Central and State Seed Corporations for multiplication and distribution widely.
- (iii) Private/Cooperative seed producers on regional basis for encouraging local

multiplication and promoting use of specific varieties.

- (iv) Other contracting parties including foreign clients in seed business who may be interested in commercializing University seed/propagules in other countries. The terms and conditions of the license will include, among other things, securing protection of University varieties in the respective countries by the foreign client.

**Exclusive Licenses:** Exclusive licenses may be given after negotiations and on mutually agreed terms as indicated in Chapter 1. In the license agreement for an exclusive license, a sub-licensing clause will be negotiated/ incorporated so that a part of the license fee and/or royalty from sub-licenses given by the licensee is provided to ICAR. Also, negotiation will be undertaken for a time-line for re-negotiation of the license, if needed, which will be recorded in the agreement.

**Compulsory Denomination:** The University seed and planting/propagating material shall be licensed under only the registered denomination. The licensee will be required to print the same denomination on the label and to sell the seed/planting material essentially under that denomination. Subsequently, it shall also not be changed by the licensee or by any third party with whom the licensee deals with in that seed.

**Use of University Mark:** Along with the use of registered denomination, all license holders shall be required to use University's Collective logo on all packets of seed/propagules of the licensed seed. In this context if the licensee is interested to simultaneously use its own trade name in the licensed seed, the same can also be agreed to.

**Seed Quality Assurance:** University would provide breeder seed and will lay down the condition before the licensee to maintain the seed quality and purity. However, it will not be held responsible for the quality of subsequent lots produced and sold by the licensee. Thus, the agreement with the licensee shall also have the following clauses:

1. Assurance clause that the licensee will maintain the seed quality and genetic purity of the plant variety licensed by University.
2. Disclaimer clause that University will not be held responsible for the seed quality/purity of the subsequent lots commercialized by the licensee.
3. Indemnity clause that the licensee indemnifies the licensor University from any legal consequences of his deals in subsequent lots of licensed seed/propagules

**Joint Ownership Cases:** Varieties for which University has joint ownership with SAUs or others, the joint owner will be given the first priority to use the variety for commercial purposes on mutually agreed terms. In the absence of any such request for a reasonable time period (6 months from grant of PVP title on the variety), the University may award a non-exclusive license to any other contracting party including in the territory of business interest of the joint owner for dissemination of seed to the farmers of that area.

### **Breeder Seed**

Depending upon the terms and conditions of the license agreement breeder seed will be supplied by concerned institutions only once or recurrently. Subsequent agreement may also be made with the licensee for making fresh supply of breeder seed.

University shall maintain seed purity and health of all their released/registered varieties. Concerned University institution(s) and breeder(s) will maintain and supply the breeder seed of respective registered and protected plant varieties as per licence agreements.

Breeder seed will be provided to the licensees under the terms and conditions that the licensee (seed agency/company producing commercial seed of University varieties) will be responsible and liable for maintaining genetic purity of the seed/propagule and seed quality during the entire term of license and the licensor will not bear any liability for spurious seed.

- (i) University shall have the right to monitor seed genetic purity of the licensee's seed lots at the cost of the licensee, which will be recorded in the licensing contract.

- (ii) University may provide consultancies on request to the licensees for technical opinion/ assistance/ advice to maintain the genetic purity and seed quality of seed/other propagules.

It will be clearly mentioned in the licensing contract as to whether the breeder seed will be given to the licensee on one time basis or on annual basis or on recurrent basis with defined periodicity. The quantity of breeder seed to be given in each case/situation will also be mentioned.

A clause will be included in the license agreement to the effect that no plant variety license will be valid unless the licensee agrees to produce and distribute/sell quality seed in the respective zone mentioned in the license agreement on a regular basis “in sufficient quantities and at a reasonable price”.

University will use various ways and means to further provide the breeder seed of its licensed varieties in case of any Compulsory Licensing under the PVP law.

Breeder seed of jointly owned plant varieties will be produced, maintained and supplied as per mutually agreed terms between University and the other co-owners of the variety.

#### **License Fee/Sale Price of Breeder Seed and Royalty**

The Committee constituted by UTMU as given in chapter 1 will determine the license fee and royalty and/or sale price of breeder seed either on a fixed basis, through negotiations with the licensee, or through an open bidding process as appropriate.

Expert opinion and judgment together with the following points will be considered to fix the price/licence fee.

- (i) Cost of seeking and maintaining the plant variety right of the variety to be licensed.
- (ii) Cost of production, handling and supply of breeder seed.
- (iii) Other institutional costs as appropriate.

The department in consultation with AgIn may determine the licence fee and/or sale price of the breeder seed at the institute level.

For evolving the system of licensing of plant varieties, CTMU/UTMU/AgIn with the help of crop-specific institutions and outside experts, will develop and disseminate model agreements/case studies of different sizes and dimensions for reference purposes.

#### **Research Exemption and Benefit Sharing**

There will be exemption for research use of all registered and protected plant varieties and registered genetic stocks of University as per the extant national laws/rules/guidelines.

Within University, all institutions shall register their elite parental genetic stocks at NBPGR. They will transfer all plant genetic material under MTA through the Bureau; and also deposit a referral seed sample along with passport data set at the National Gene Bank as a pre-requisite.

University will not impose any royalty payment for such breeding material maintained by private seed companies without registration and protection under the PPV&FR Act as is developed/derived from genetic stocks of University. However, it would be expected that the concerned seed company shares the commercial benefits accrued using these breeding materials.

Condition of any royalty payment will also not be imposed for materials used in All India Coordinated Research Projects/ Network Projects by SAUs and other partners with whom University has standing MOUs. Rather, such cases will be addressed/settled on mutually agreed terms.

In accordance with the provisions of the PPV&FR Act, University may charge a royalty on seed sale of a protected variety which is developed by another agency/ company/ breeder by using its genetic material, which will be recurrently required for the commercial production of the protected variety.

University will consider/discharge any liability of benefit sharing that may be fixed by the PPV& FR Authority under section 26(5) of the Act. Concerned CTMU/UTMU shall verify the relevant facts and make a detailed case to CTMU/UTMU for the consideration/approval of the competent authority.

#### **Records and Confidential Information**

Standard records of genetic stocks at the institution along with confidential records (codes) where applicable shall be maintained in signed and countersigned notebooks/registers. Suitable data sets will also be documented in the institutional/zonal/central database.

All confidential information, such as codes, etc., will be kept safely and would not be revealed by individuals/institutions except through confidentiality agreements<sup>74</sup> which will expressly mention the purpose for sharing such information and other terms and conditions.

#### **Infringements**

Concerned breeders/other University scientists will report all matters of infringement/suspected infringement of plant variety rights in their knowledge to the respective CTMU/UTMU /AgIn as appropriate. Concerned CTMU/UTMU will handle the cases reported to them or other apprehended cases either on their own or with the assistance of AgIn. Further legal action, if required will be taken with the approval of competent authority.

#### **Monitoring and IP/Market Watch**

The commercialization of plant variety portfolio will be monitored by UTMU. The relevant developments/matters of concern, etc. will be critically observed and addressed.

#### **Socio-Economic Impact**

UTMU Unit will plan/organize/assign suitable impact assessment studies on socio-economic impact of the commercialized plant varieties/hybrids of University in different crops and regions of the country.

## CHAPTER-3 INCENTIVES AND BENEFIT SHARING

### Introduction

To provide greater impetus for research and innovation university will share with its scientists/innovators monetary benefits from transfer/commercialization of the technologies. University will also reward and confer awards upon its scientists and other staff. This chapter describes the procedure for incentives and benefit sharing.

### Awards

University will develop a system of recognizing the achievements of its meritorious scientists through annual conferment of awards. It will review and expand the scope of its awards and institute new awards, including monetary rewards, so that (i) innovation is stimulated (ii) basic science frontiers are furthered, and (iii) research in neglected crops and underprivileged areas is encouraged.

### Benefit Sharing

**Monetary and Non-Monetary Benefits.** University will realize monetary and non-monetary share of benefits from the licensee(s) of its technologies in the following ways, subject to the licence agreement,

- (i) upfront lump sum payment,
- (ii) upfront payment plus royalty on actual sale,
- (iii) royalty on actual sale,
- (iv) in-licensing/cross licensing of tools of technology generation in frontier areas,
- (v) research capacity building,
- (vi) research chair,
- (vii) research fellowship etc.

**Scientists and Staff;** University will share the income resulting from commercialization of an IP with individual(s) responsible for the innovation. The amount to be distributed/shared will be the accruals after deduction of statutory applicable taxes and the amount retained by university for augmenting IP management. The payment will be treated as bonus income of the individual and shall be taxable under the Income Tax Act.

**Colleges:** University will share part of the net revenue/benefit money resulting from commercialization with the concerned college(s).

**University.** University will retain part of the income resulting from commercialization at the headquarters. It will provide these funds to the UTMU for improved management of IP and technology commercialization.

**Staff Welfare.** A share of the monetary benefit will be earmarked for staff welfare and will be placed with the Staff Welfare Fund of university.

### Sharing of Net Revenue

The net revenue available for sharing between various stakeholders will be determined as follows.

Stakeholder category	Commercialization through Agriinnovate India Limited	Commercialization directly by University
Revenue net of Taxes	A	A
University	20% of A	20% of A
AgIn India Limited	20% of A	--
UTMU	15% of A	35% of A
Innovator & Team	40% of A	40% of A
University (Staff welfare)	5 % of A	5 % of A



The revenue received by university will be used in addition to budgetary support towards cost of seeking patent/IPR protection, including the cost of outsourcing for expert assistance, if any, cost of filing, etc., cost of maintenance of patent/IPR; cost of licensing; overhead costs; taxes, other than service tax; reimbursements as may be necessary or required by law, and other costs, if any.

**Allocation of Scientists' Shares.** The 40 per cent share of the net revenue will be shared among the concerned scientist (s) and other team members based on mutual agreement. In case of any disagreement, the decision of the Vice chancellor will be final. The monetary benefits accrued by the individual scientist/innovator/staff through these guidelines or through the professional service activities will be accounted for in each financial year as the total benefit sharing income of the concerned individual scientist/innovator/staff.

**Payable by Individuals.** The benefit money received by a scientist or other team/ staff member will be governed by Income Tax Rules and the disbursing institutions will deduct Income Tax at source as per the prevailing rates.

**Allocation university Share.** The UTMU with the approval of competent authority will decide regarding further utilization of the benefit money earmarked.

(Amit Kumar)

(Rachna Varma)

(Mukesh Kumar)

(Satya Prakash)

(Gopal Singh)

(Anil Sirohi)

**Check-List for Invention/IP Disclosure (Confidential)**

(To be submitted by PIs/Inventors/Innovators to CTMU as Confidential Information) (Note: Select information from this check-list may also be furnished as technology disclosure to the interested commercial entities who shall sign a confidentiality agreement with University)

**File No.** \_\_

**1. Title of invention.** The title should describe what the invention does but not how it is made or how it works.

**2. Patent/IP search report.** A report of the Patent Search carried out in common, free patent search engines for granted patents in USA (USPTO web site; <http://www.uspto.gov/>), Europe/World (EPO web site; <http://www.espacenet.com/>), etc., including the PCT Applications (WO).

i. **Search Terms.** A short list of words, phrases and/or categories should be provided that may help in making internet searches related to the invention/innovation.

**3. Brief overview of the invention (3 to 4 paragraphs).**

i. Provide a short, general overview of the invention including what it does in such a manner that a lay person would understand.

ii. What is the purpose of invention e.g. what problems does it solve?

iii. Is it a new product, process or composition of matter or is it an improvement over an existing product, process or composition of matter?

iv. What are the features and benefit of the invention?

**4. Technical description, details and supporting data.** Provide results, data or other indicative evidence that may explain how the invention works. Attach any papers or visual material that may be already available, whether published or unpublished.

**5. Prior Methods, apparatus, developments and publications.**

i. Provide description of the closest known methods/processes or apparatus/substances in existence along with disadvantages or problems of each of these methods/processes/ apparatus/substances that are solved by the application of the present invention.

ii. Disclosure could also be an oral, written or electronic dissemination of the invention to a person outside the university that may enable someone working in the field to practice the invention or repeat its development. However, any communication with colleagues and students within the university community do not count as disclosures unless they have already used that communication for any public disclosure or publication, etc. It is important to disclose any such occurrences to the CTMU for helping to arrive at best course of further action. Such disclosure may have to be made by the concerned institution to the enterprises/companies towards commercialization of the technology. In such cases, CTMU must sign a declaration of field worthiness of the technology at the end of the disclosure document.

iii. Cite publications and patents, whether own or those of any one else, that may disclose the ideas/events/products closely related to the invention. e.g. most similar variety(ies) in case of PVP. (Attach all relevant papers, patents, advertisements etc. if available).

**6. Stage of development (2-3 paragraphs).** Describe the development status (whether it is at 'concept only' stage or it is already 'laboratory tested', or 'prototype', etc.). Also briefly indicate what further development would be necessary to commercialize it.

**7. Potential licensees.** Mention enterprises/companies that you think could benefit from the use this invention for commercial purposes.

**8. Publications/presentations/other forms of public communication.** Identify past and future seminars, talks, abstracts, publications and web postings that would be describing the invention.

Type of disclosure (Publications, Seminar, etc)	Dates (s)

**9. Dates of conception and reduction to practice.** Describe the circumstances and dates surrounding development of the invention. The dates must be well documented so that any challenge to patent, if ever, shall be met. In this context, conception is the formulation in the mind of the PI/inventors of the ultimate working invention. Reduction to practice can be accomplished either actually or constructively.

Is the date for the following documented in writing? If so, where?	in	Date
Conception of invention		
First reduction to practice		

**10. Sponsorships.** Mention/identify all grants, contracts and other sources of funds contributing to research that led to the invention.

Agency or sponsor	Grant/contract	File No. /Subject

These types of disclosures may affect the scope of patent protection and the timing of filing and, therefore, must be thoroughly shared to arrive at best-fit judgment viewpoint.

‘Actual reduction to practice’ is the physical creation of the invention whereas ‘constructive reduction to practice’ is a detailed written description that demonstrates the invention will work as conceived.

List all agencies that you would acknowledge in a publication. Be liberal in the interpretation on your part to help arrive at suitable conclusions at the institution level.

**11. Other agreements and interactions.**

- i. Mention/Identify any agreements or interactions that have been/may have been entered into, which relate/could relate to the invention and might grant rights to an enterprise/ company/ any other party outside the University.
- ii. Provide the details of MTA entered into or other agreement/consent details if the invention is based on any material(s) obtained from another institution/ organization/company.
- iii. Did you transfer to any researcher outside of your institution any new materials (DNA, peptides, cell lines, vectors, catalysts, alloys, etc.) related to the invention? Provide the details.
- iv. Is there any other group, lab or researcher in the institution or in any other institution of University or outside University using your invention in their research programme? If so provide the details.

**12. Inventors.** Provide list of all those individuals who helped/contributed to the conception of the ultimate working invention. The people you include ultimately may or may not be legal inventors, Please place an asterisk (\*) next to the name of the inventor to whom correspondence should be sent. If any person holds a sole or joint appointment with any other university, company or government agency, please note that fact.

Name of helping/ contributing individual	Whether recognizing as Inventor or Not (Yes/No)	Name of any other institution/ university/organization/ company to which affiliated (also affiliated)	Name & Signatures along with Date, of the Inventors	Name & Signatures along with Date, of the Unit/Division Heads of the Inventors

**13. Declaration of Field Worthiness of Technologies/ Products/ Substances/ Processes.**

Where needed, Director of concerned CTMU institution shall sign the declaration, stating that the technology/ product/substance/process is field worthy for the purpose of obtaining IPR and for commercial use.

These may include MTAs, research sponsorship agreements, collaborative research agreements (e.g. for consortia, networks, etc.), agreements for consultancy, outsourcing, etc.). Information on field worthiness shall be provided by the PI/inventor (s) and recommended by the concerned CTMU and the declaration will be signed by the Director.

**TECHNOLOGY DISCLOSURE FORM (Confidential)**

(To be submitted to AgIn for commercialization of Technology)

Technology Number: (To be provided by AgIn)

Name of Technology:

Name of the College:

Ownership of the technology:

**Section 1: Contact Information**

- Contact details:
- Name:
- Title:
- Telephone:
- Mobile Phone:
- Email:

**Section 2: Technical Description**

1. Problem Description: Please explain the problem / situation that this innovation was created to solve or address. (Please limit your problem description to 70 words or less.)
2. Solution Description: Please explain (in simple terms) how this innovation addresses or solves the problem.

**Section 3: Intellectual Property Status**

Has this innovation been granted any patents?

**Section 4: Additional Information**

1. What is the total cost (including manpower, equipment and all other resources) required to complete this innovation?
2. Has this technology/ innovation being commercialized by the institute? (Yes/No)
3. If Yes, please attach the signed agreement
4. If No, please elaborate on the tentative nature of the license to be granted by the institute for this commercial purpose.
  - a. Nature of License: Exclusive/non-exclusive
  - b. Duration of the License:
  - c. Licensee fee:
  - d. Royalty:
  - e. Licensed territory: India/other countries
  - f. Raw material to be transferred. If any
  - g. Cost to be charged to raw material. If any
  - h. Time line to transfer the raw material
  - i. Handholding and training support required
  - j. Cost for handholding and training
  - k. Any other specific requirements

**Section 5: Certifications and Approvals**

It is certified that the above information about the Technology Nominated for Transfer of Technology is correct and no Security Sensitive/ Confidential and Proprietary information has been provided.

**Competent Authority**

**TECHNOLOGY EVALUATION**

The expert committee must deliberate the following and arrive at the final decision of Evaluation in the following areas.

	<b>Technical Attributes (30%)</b>	<b>Weightage</b>	<b>Committee</b>
1	Innovative technology (Innovation level)	6	
2	Technical compatibility (new Systems modifications/small modifications/ nomodification)	2	
3	Ease to implement/work	2	
4	Process advantage	2	
5	Developmental maturity (theoretical/lab scale/bench scale/pilot scale/ full scale)	5	
6	Technology benefits (to end user)	2	
7	Future scope for improvement / next level	3	
8	Technical expertise availability	4	
9	Technology Readiness Level	4	
	<b>Subtotal</b>	<b>30</b>	
10	<b>Business Attributes (60%)</b>		
11	Market demand	10	
12	Business opportunity	8	
13	Revenue potential	7	
14	time to reach market	8	
15	Competitive advantage	5	
16	Competitor entry barriers	3	
17	Cost advantage	5	
18	Geographical market reach	4	
19	Regulatory Acceptability	6	
20	Public Perception	4	
	<b>Subtotal</b>	<b>60</b>	
	<b>Social attributes (10%)</b>		
1	Benefit farmers (directly/indirectly)	3	
2	Create job opportunities	2	
3	Impact society	2	
4	Health benefits	2	
5	Social recognition	1	
	Subtotal	10	
	<b>Grand Total</b>	<b>100</b>	

- Pl. Give score for each tech 1, 2, 3....10...n
- Scores (Nil-0, Low-1-4, Neutral-5, Medium-6-8, High - 9,10)
- Technology whose average is above 55 will be taken up for commercialization.
- Expected roles and responsibilities of CTMU AgIn & Clint shall also decide by this committee.

**TENTATIVE STANDARD TERMS TEMPLATE**

1. Background of the technology
  - a. Why does the problem exist and who is impacted by the problem?
  - b. How does the technology solve the problem?
  - c. Is the technology/product is tested either against other technologies and products, or against standards and specifications?
2. Territory/Territory restrictions:
3. Licence fee and Duration:
4. Degree of Exclusivity:
5. General indemnity:
6. Compliance/legal/statutory clearance required:
7. Branding:
8. Any other important terms & conditions:

**CONFIDENTIALITY AGREEMENTS**

(There is no set formula or a ‘one-size-fits-all’ situation for Confidentiality Agreements. Such agreements may be entered into in various shapes and sizes, from the short and simple to the long and legalistic. For example, a simple undertaking duly signed by all concerned members may be sufficient for internal use of a Committee. On the other hand, the confidentiality agreement for transfer of IP/know-how has to be elaborate. The following example illustrates the types of clauses that may be incorporated in these agreements. Nevertheless, it is merely an example and one may have to consider the particular circumstances in which any confidentiality agreement is to be reached.)

**Confidential Disclosure Agreement**

Signed on [Date]

**Between**

**Sardar Vallabhbhai Patel University of Agriculture & Technology as the First Party**

**And**

**[Organization/Company name and address] as the Second Party**

1. On the understanding that both parties are interested in meeting to consider possible collaboration in developments arising from SVPUAT intellectual property it is agreed that all information, whether oral, written or otherwise, that is supplied in the course or as a result of the said meeting shall be treated as confidential by the receiving (Second) party.
2. The receiving (Second) party undertakes not to use the information for any purpose, other than for the purpose of considering the said collaboration, without obtaining the written agreement of the disclosing (First) party.
3. This Agreement applies to both technical information and know-how communicated by either party.
4. This Agreement does not apply to any information in the public domain. [If appropriate, the relevant public domain information can be listed as annexure to this agreement].
5. Either party to this Agreement shall on request from the other party return any documents or items connected with the disclosure and shall not retain any unauthorized copies or likenesses.
6. By this Agreement, or the communication of information by SVPUAT referred to in paragraph, the Second Party is not entitled to any license or right or interest in respect of any Intellectual Property Rights of the disclosing party SVPUAT.
7. After [number of] years from the date hereof each party shall review or be relieved of all obligations under this Agreement.

<p><b>Signatures [Authorized Signatory of SVPUAT] For SVPUAT</b></p>  <p><b>Dated</b> _____</p>	<p>Signatures [Representative (Authorized Signatory) of the Organization/Company] For [Name of Organization/Company]</p> <p><b>Dated</b> _____</p>
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