
Innovation and Startup Policy

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Incubation cum Technology Commercialization Unit (ITCU)
School of Planning and Architecture, Bhopal
Website: spabhopal.ac.in/itcu.aspx

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equity holding of the Faculty or Staff in the company.

- The company (Start-up) should not be construed as an agent or representative or part of ITCU or SPA Bhopal. The company shall be solely responsible for the activities undertaken by it or for any liabilities that may arise from its activities.
- The company can utilize the resources of ITCU on the payment of prescribed usage fees.
- Subject to the existing rights or licenses, the company shall have the option to obtain the license of knowledge-base from ITCU (SPA Bhopal) by paying royalty (upfront or staggered with milestones or a combination of both).
- The company shall continue to be liable to ITCU for payment of royalty as per agreement (at least at the minimum rate of 1% of gross annual revenue) even if the concerned Faculty or Staff offloads her/his stake in the Entity.

Resolution of Disputes

Any dispute arising out of the agreement shall be referred to an arbitral tribunal comprising of three arbitrators; both the parties will appoint one arbitrator each to the dispute and those two arbitrators in turn shall appoint a third arbitrator. The three arbitrators shall constitute the arbitral tribunal.

The decision of the arbitral tribunal shall be final and both the parties shall obey the decision.

The venue of the arbitration shall be Bhopal.

The arbitration proceedings shall place in accordance with the Indian Arbitration and Conciliation Act 1996, or any subsequent amendment thereof.

The cost of arbitration proceedings shall be equally shared by both the parties.

The language of arbitration proceedings shall be English.

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- Student inventors (or faculty) involved in a start-up may not negotiate with the Institute on behalf of the company unless they are on leave from the institute.
- If, after thorough marketing, ITCU determines that an inventor-affiliated company is the appropriate licensee, ITCU documents its marketing efforts and summarizes the rationale for its licensing decision.
- If the inventor is at SPA Bhopal, a committee constituted by the institute will review any actions that present a potential conflict of interest.
- The inventor must disclose any financial interest (consulting fees and / or stock options) in the start-up to the committee.
- Student inventors must describe
 - i) how they will separate and clearly distinguish their on-going activities as students (e.g., thesis research) from work being conducted at the company; and
 - ii) measures that will allow them to avoid all use of SPA Bhopal facilities and personnel for company purposes. Ideally, the separation between SPA Bhopal and the company will occur contemporaneously to any formal option or license agreement.
- The committee must also review and approve any conflict of interest under policies that apply to faculty if SPA Bhopal faculty is involved with and have a financial interest in the start-up company.
- ITCU may proceed with the licensing only if all conflicts are deemed manageable by the cognizant committee.

For Start-ups: Best Practices

- The company (Start-up) shall enter into an agreement with ITCU (SPA Bhopal) for terms of engagements including royalty. Royalty shall be payable to ITCU on account of the contribution of the Faculty or Staff of SPA Bhopal at the rate of x% of ten percent of the gross annual revenue for a period of ten years from the date of registration, where 'x' is the present

he or she should avoid situations in which junior faculty might feel expected to be involved in the company;

- Use institute facilities for company purposes;
- Supervise faculty who are PI for human subject's research related to the company;
- Undertake human subjects research at Institute as PI.

'Pipelining'. Many times, the faculty member wishes to continue to do research at Institute in the area of interest to their Start-up. SPA Bhopal is particularly concerned that institute resources will be used to benefit the company, especially new companies that do not have their own facilities or many employees (i.e., the 'virtual' company). SPA Bhopal should not be the research or development arm of a Start-up. If a new follow-on or improvement invention is developed after the original dominating technology has been licensed to the Start-up, ITCU will still market it to all potentially interested parties. Exclusive licenses will not always be granted to the start-up, even if there is no other interest. In cases where the original technology dominates the subsequent developments, sometimes a nonexclusive license will suffice. If, in the interest of effective technology transfer, it is reasonable to grant an exclusive license to the follow-on technology, the exclusivity may be mitigated by a shorter term of exclusivity, limited field of use, increased diligence, etc. any new license is subject to conflict of interest (Col) review and approval.

For Students: Best Practices for Start-ups

ITCU makes licensing decisions based on its professional judgment about how to achieve the best possible benefit to the public, without inappropriate influence from internal or external parties.

To effectively transfer the technology in an unbiased way:

- ITCU markets all SPA Bhopal technology to ensure fair and open access to potential licensees.
- Start-ups should not receive or be perceived as receiving preferential treatment.

BACKGROUND

A proposal of the Department of Scientific and Industrial Research (DSIR) to permit faculty and staff to own equity stake in scientific development while in professional employment with their research and academic organizations, was approved by the Cabinet vide OM No. 3 / 3 / 2009 – TU/ V/ Knowledge-to-equity dated May 25, 2009 and accepted by the Government of India, Ref: https://www.dsir.gov.in/sites/default/files/2019-09/knowledge_equity_om_25may2009.pdf

The key components of the proposal approved for implementation are:

- i. Permitting the researchers to have an equity stake in scientific enterprises / spin offs while in professional employment with their research and academic organizations (universities, academic and research institutions, herein after referred to as Scientific Establishment);
- ii. Permitting the Scientific Establishment to invest knowledge as equity in the enterprises;
- iii. Encouraging the Scientific Establishment to set up incubation centers; and
- iv. Facilitating mobility of researchers between industry and scientific establishment.

As a part of 'National Innovation and Start-up Policy (NISIP)' campaign, an invitation from MHRD's Innovation Cell (MIC) and AICTE, New Delhi, was received by School of Planning and Architecture, Bhopal on May 26, 2020, for initiating implementation of NISP at the institute. This policy document is an initiation to promote Entrepreneurship and Start-up activities based on Innovation, Intellectual property rights among faculties, staffs and students at SPA Bhopal. For implementing the provision for having equity in a Scientific Enterprise (Start-up) and to be associated with a Scientific Enterprise as non-executive Director, the Government has approved exemption in CCS (Conduct) rules such as 15 (relating to private trade and employment), 16 (relating to investments, lending and borrowing),

18 (relating to movable/ immovable property) and FR-11 and other related rules. However, only those faculty and staff will be exempted from CCS (Conduct) rules, who are permitted to have equity stake in companies by the Competent Authority. Remaining faculties and staffs of the institute will continue to be governed by the CCS (Conduct) rules. If the institute is following its own conduct rules. Then it has to provide exemption to the relevant rules to enable faculty and staff permitted by the Competent Authority to avail the provision.

OVERVIEW

Whether Incubation cum Technology Commercialization Unit (ITCU) is licensing to a start-up company or an existing company, School of Planning and Architecture, Bhopal's goal is to maximize the chances of successfully transferring the technology while prioritizing the Institute's missions of research and education. This obligation is the shared responsibility of ITCU and the start-up entrepreneurs, especially if they expect to maintain connections to the Institute (as faculty, staff or students) during the creation of the start-up or after it is launched. This guide summarizes some of these responsibilities, but individuals are expected to know and follow SPA Bhopal's policies about conflict of commitment and conflict of interest and related matters.

ITCU realizes that most SPA Bhopal technologies are early stage and require a significant investment to bring them to the marketplace. To do this, start-up entrepreneurs must have a passion that borders on irrational optimism and faith in the technologies along with an eagerness to commit their own time and resources to develop these inventions. ITCU is willing to negotiate with new companies to craft an agreement that is consistent with other licenses and can help them succeed. ITCU does not claim to know which new ventures will be successful – that's left to luck and hard work – but ITCU wants to work with these new companies so they can get a start.

FACULTY RESPONSIBILITIES

Faculty and staff members must abide by the rules and regulations issued by SPA Bhopal from time to time and are responsible for separating Institute duties for research and education from personal financial interests in the company.

Faculty and Staff must

- Separate and clearly distinguish on-going Institute research from work being conducted at the company (Start-up);
- Limit consulting for the company to a maximum of 15 days a quarter, per Institute policy;
- Serve an owner / direct promoter, mentor, consultant or as on-board member of the start-up;
- In case the faculty / staff holds the executive or managerial position for more than three months in a start-up, they will go on a lien for maximum period of three years / sabbatical / leave without pay / utilize existing leave;
- In case of selection of a faculty start-up by an outside national or international accelerator, a maximum leave (as sabbatical/ existing leave/ unpaid leave/ casual leave/ earned leave) of one semester/ year (or even more depending upon the decision of review committee constituted by the institute) may be permitted to the faculty.

Faculty and Staff must not directly or indirectly

- Negotiate with the institute on behalf of the company (Start-up) in any process to license knowledge-base or in any evaluation and purchase or hiring of goods and services between institute and company;
- Receive gifts or sponsored research from the company;
- Involve research staff or other institute staff in activities at the company. Company personnel cannot be affiliated with the institute;
- Involve company personnel in the institute research;
- Involve current students in company activities;
- Involve junior faculty that they supervise in company activities. Even if the faculty member does not have a supervisory role,

- If, after thorough marketing, ITCU determines that a faculty-affiliated company is the appropriate licensee, then it documents its marketing results and summarizes the rationale for its licensing decision for the committee.
- The faculty member must agree to separate Institute responsibilities from company responsibilities according to the criteria listed under Faculty responsibilities.
- ITCU may proceed with licensing only if the conflict is deemed manageable by the committee (based on the faculty member's plan for separating responsibilities).

ITCU may take equity in the company (Start-up) in lieu of royalty / premia or its combination, as per agreement. In case, ITCU decides to divest the equity, it will be first offered to the promoters of the company.

Inventor will have the first right of refusal of exploiting the knowledge-base to create the company (Start-up). However, ITCU shall license knowledge-base to the company on terms that are no worse than the terms on which the institute would have licensed the knowledge-base to another entity on arm's length basis.

ITCU shall reserve the right to take an independent decision as it deems appropriate, in the event of the company merging with another company or acquiring another company.

ITCU can offer its equity to be placed under the Initial Public Offering (IPO), in the event the Entity decides to go public with an IPO offer.

For Faculty: Best Practices for Start-ups

With a growing need felt to improve the position of the institute in the society and to improve the financial support for contributing in various research works, entrepreneurial activity can be promoted in SPA Bhopal campus. But this entrepreneurial activity must be balanced by careful review of the proposed relationships, which may or may not be allowed. SPA Bhopal is committed to avoiding either perceived or actual conflict of interest (CoI) issues with respect to faculty Start-ups. Both SPA Bhopal and its faculty members have responsibilities to optimize technology transfer and mitigate CoI when licensing SPA Bhopal IP to a Start-up is considered.

Technology Transfer at a Glance for Start-ups

The technology transfer process can be conceptualized as a continuous cycle, where development of technology in the workshop is converted into licensed products for the market that then help to fund the next generation of research and innovation. For the most part, the steps of the cycle are similar whether the company commercializing the technology, is a new venture or an established one.

Some of the steps are highlighted in the following, that may be particularly relevant to entrepreneurs starting a new venture based on the intellectual property rights policy of SPA Bhopal. Following points explain the steps in detail.

1 RESEARCH

Observations and experiments during research activities often lead to inventions and development of new technology, process, software and other copyrighted works. An innovative idea may lead to any useful product, process and improvement of the same. Often, different researchers – including faculties, staffs, students, post-docs and research staff – contribute to an innovative development.

2 INVENTION AND TECHNOLOGY DISCLOSURE

The written notice of an invention to Incubation cum Technology Commercialization Unit (ITCU) begins the formal technology transfer process. The Invention and Technology Disclosure (also known as an invention disclosure) is a confidential document and should fully describe the new aspects of the invention, including the critical solution it provides and its advantages and benefits over current technologies. Invention disclosure can be submitted through ITCU's Researcher Portal (*address of ITCU Research Portal*).

3 ASSESSMENT

A Licensing Associate will be appointed who will review the invention disclosure and evaluate the invention's commercialization potential based on patent searches (if applicable), market analysis, existing competitive technologies and other factors. The assessment guides the licensing strategy.

If the inventors are contemplating starting a company around the technology, it is recommended to inform ITCU about their plans during the assessment stage. The ITCU Licensing Associate will take this into consideration when evaluating the technology and developing a strategy for intellectual property (IP) protection, marketing and licensing.

PROCEDURE FOR STARTING A START-UP at SPA Bhopal

The Dean, Research shall be the nodal person for handling requests from faculty, staff and student seeking permission under the provision;

Any faculty or staff desiring permission shall apply to the Director, SPA Bhopal seeking permission to have a stake in a company (Scientific Enterprise) and to be associated with the Entity (Start-up) as non-executive Director, in accordance with the procedure;

In the event of more than one faculty or staff collectively investigating in the Start-up, each one of them will have to seek the permission to have a stake in the Start-up and to be associated with the Start-up as non-executive Director;

The Director, SPA Bhopal shall be the competent authority to approve (or, turn down) applications received from faculty/ staff/ students in this regard.

INSTITUTE/ ITCU RESPONSIBILITIES and LIABILITIES

ITCU makes licensing decisions based on its professional judgement about technology transfer to achieve the best possible benefit to the public, without undue influence from internal or external parties. ITCU takes several steps to effectively transfer the technology while managing conflict of interest. **First**, ITCU markets all SPA Bhopal technology to ensure fair and open access to potential licensees – faculty Start-ups should not receive or be perceived as receiving preferential treatment. **Second**, SPA Bhopal faculty/ employees are not allowed to represent the potential licensee and must not negotiate directly with ITCU. **Third**, ITCU licensing agreements may be exclusive or non-exclusive depending on what is most suitable for a given technology. **Finally**, a committee must review any actions that present a potential conflict of interest, specifically:

CONFLICT OF COMMITMENT

All the faculties and staffs have their professional obligations to the university. Their primary commitment of time should be to the education, research and scholarship programs of SPA Bhopal. Conflict of commitment involves issues of time allocation. If such a situation raising questions of conflict of commitment arises, faculty or staff must discuss the situation with their department Head and Dean of Research.

CONSULTING AND OWNERSHIP OF INTELLECTUAL PROPERTY

Start-up companies may hire SPA Bhopal faculties and staffs as consultants. University faculties and staffs should be able to delineate their professional responsibility between university work and private consulting, and it must be clear to all parties. They cannot enter into any agreement that creates copyright or patent obligations that conflict with their legal commitment to SPA Bhopal. These policies also apply during sabbatical leave. If there is a question of IP ownership, the IP should be disclosed to the university.

OBLIGATION TO SPONSORS

Inventors should take particular care in disclosing all sponsors, including companies whose funding or materials led to the invention. Sponsored research agreements specify what rights a sponsor has in any IP developed as a result of the sponsored research. Mostly, federal funding of research leading to an invention will not impose significant impediments on commercializing the invention via a start-up. Funding or materials provided by other entities (such as companies) may result in license rights to those entities, limiting the license rights available for a start-up. Corporate sponsors are typically granted rights to negotiate a license for any IP arising from sponsored research, but sponsorship agreements vary widely. The Licensing Associate responsible for the invention reviews the research agreements listed on the invention disclosure to identify any licensing restrictions on the invention.

4 INTELLECTUAL PROPERTY PROTECTION

(if appropriate, necessary, or warranted)

Patent protection, a common legal protection method, begins with the filing of a patent application with the Indian Patent Office (ipindia.nic.in) and, when appropriate, foreign patent offices. It takes time and requires money to obtain an issued patent. Other common forms of IP protection include copyright and trademark. Unique biological materials and software can often be successfully licensed without IP protection.

5 MARKETING

SPA Bhopal is committed to broadly marketing all technologies to appropriate companies that could be interested in commercializing the particular invention. With the investor's input, ITCU creates a marketing overview of the technology; identifies candidate companies (potential licensees) that have the expertise, resources, and business networks to bring the technology to market; and contacts those companies to generate interest and gauge commercial potential.

To ensure fair and open access to potential licensees, ITCU markets all SPA Bhopal technologies, including those with start-up interest. Broad marketing helps the University find companies who may be interested in developing the technology and helps to mitigate and manage conflicts of interest if the technology is licensed to a start-up. The marketing period typically lasts 1-3 months before the Licensing Associate selects a licensee (if there is any commercial interest at all). Sometimes entrepreneurial inventors receive valuable industry feedback and begin to establish relationships with potential partners during this process.

6 SELECTING THE BEST LICENSEE(S)

Typically, there is only one party or none at all interested in licensing. If there are several parties interested in a license, ITCU may grant non-exclusive or field-of-use licenses. If it is not possible to accommodate all interested parties, ITCU will license the company most committed and able to bring the technology to the marketplace.

To choose the best licensee, ITCU evaluates a company with respect to its position to develop the technology and bring it to the marketplace. A well-established company typically has resources, business networks and product development experience but can lack commitment to the technology. A small company often has the singular focus and passion of a technology champion, the drive to bring the technology forward and see that it succeeds – but insufficient experience or resources to make sure it can happen.

To assess the commitment of potential licensees, ITCU asks the companies for a best possible plan with details about the development and marketing the technology, so that the company and its leadership are the best choice for commercializing the invention. It is important to note that inventors may not serve a management role in the start-up company unless they plan to leave SPA Bhopal (either permanently or on a leave of absence).

7 LICENSING

ITCU negotiates and executes a license or option agreement. This agreement is a contract between SPA Bhopal and a company in which certain University rights to a technology are granted to a company in return for financial and other benefits. Most start-ups request an exclusive license because they believe it is required to raise funding for the company. Typical terms for an exclusive license with a start-up company are described in page 13. They include equity, royalties, diligence milestones and an assignment fee.

When inventors of SPA Bhopal are involved in a start-up company, licensing to that company can raise concerns about conflicts of commitment and interest. The University needs to maintain an arms-length relationship in all its business transactions (including license negotiations). The final license agreement must fall within the normal range of terms and conditions of similar licenses to non-inventor-associated companies (taking into consideration the unique circumstances of each technology and transaction). ITCU cannot conclude any agreements until the appropriate conflict of interest reviews and approvals are completed.

Conflict of Interest, and Conflict of Commitment

INTELLECTUAL PROPERTY POLICY AND OWNERSHIP

Spa Bhopal's intellectual property (IP) policies are outlined in the IPR Policy handbook ([weblink](#)). For new companies started by SPA Bhopal faculty, staff or students with technology/ product/ process/ trademark/ software created at SPA Bhopal and falling under SPA Bhopal policy, ownership of IP rights will be with SPA Bhopal. This ownership policy applies to any sort of intellectual property, including patents, copyrights on software, trademarks, geographical intellect and tangible research property.

MANAGING CONFLICT OF INTEREST AT SPA BHOPAL

ITCU works with SPA Bhopal inventors both to facilitate technology transfer and to manage the licensing process. In the case of SPA Bhopal-affiliated start-ups, this process often raises issues regarding conflict of interest (COI). A full explanation of SPA Bhopal's policies and procedures for managing COI can be developed.

In addition, ad hoc disclosures are required whenever a current or prospective relationship creates the potential for COI (e.g., when there are additional financial relationships proposed between a faculty member and a prospective licensee or research sponsor). A COI occurs when there is a divergence between an individual's private interests and his or her professional obligations to the institute such that an independent observer might reasonably question whether the individual's professional actions or decisions are determined by personal financial considerations. A COI depends on the situation and not on the character or actions of the individual.

COI reviewers are concerned with whether or not a researcher/faculty member can separate institute research from company research, provide unbiased and appropriate guidance and support to students, maintain academic integrity in research and education, and adhere to government mandate policies. ITCU cannot conclude any agreements until the appropriate COI reviews and approvals have been completed.

Licensing to start-up companies usually presents conflicts of commitment (CoC) and conflict of Interest (CoI) issues that must be disclosed by inventors and managed by the Institute. If faculty, staff or students propose to have a management role in the start-up company, approvals for leaves of absence must be obtained before the license agreement.

When SPA Bhopal typically owns the Original Patent of an invention and grants a license to a licensee; in that case, if the licensee conceives a Follow-On invention to the Original Patent without the involvement of SPA Bhopal, it will belong to the licensee and the patent must be filed by a different law firm than the original patent. Follow-On inventions based on work at SPA Bhopal will be owned by SPA Bhopal and the licensing of the new invention will be handled by ITCU as if it were a new disclosure. In other words, the existing licensee will not be automatically granted a license to the Follow-On invention.

title
A company is not required to be officially incorporated in the list of ITCU but it must have a name and place of business before applying for a license to a patent. ITCU must sign an agreement with an entity, not individual inventors. SPA Bhopal employees may not sign an agreement on behalf of the company nor have positions/titles at the company that imply a management role.

SPA Bhopal may jointly produce patent with other organization. In that case, ITCU enters into an inter-organizational agreement whereby one of the organizations will take the lead. This way a company can negotiate a single agreement with an exclusive license to both parties' IP rights.

If a company (Start-up) needs technology from another organization besides SPA Bhopal, but the technology is not jointly-owned with SPA Bhopal, under that circumstance the company will need to negotiate separately with the other organization for a license.

If the invention is Unpatented software which falls under SPA Bhopal's ownership policy, a copyright license is required by the company.

8 COMMERCIALIZATION

Most of the inventions in University are at very early stage and require further research and development efforts. The licensee typically makes significant business investments of time and funding to commercialize the product or service. These steps may entail regulatory approvals, sales and marketing, support, training, and other activities. The licensee will be expected to meet commercialization milestones described in the license.

It is fairly common for licensees, particularly early-stage ventures, to evolve their strategy and development plan as the company grows, faces technical challenges, and recognizes new market opportunities. ITCU can work with licensees to amend and renegotiate license agreement in response to these changes if the request and reasons to renegotiate are reasonable.

9 ROYALTIES

Royalties received by the University from licensees are distributed annually to inventors, other concerns according to SPA Bhopal policy. Royalties include both cash and equity received from licensees in consideration for granting the license. The inventors, including those who are involved in the start-up, will receive their share under SPA Bhopal policy outlined in the Research and Development Policy Handbook.

10 REINVEST

Royalties and the proceeds from the equity that are earned by the inventors foster the creation of the next generation of research and innovation.

Getting the Business to Take Off

One needs the qualities like commitment and dedication to continuously try to achieve success in spite of difficulties after launching a start-up company. There are many examples, where in spite of innovative and promising technology companies could not be able to achieve the success, due to lack of appropriateness in implementing the right technology at the right time for the benefit of the society. Launching a successful start-up company requires a compelling concept, a strong market opportunity, a competitive advantage, a sound business and financial plan, and an experienced management team. Sense of appropriateness of timing is also important.

Entrepreneurs spearheading the new company formation will be the key champions for the technology and the start-up. There are many tasks, every start-up owner needs to take, those are, navigating the standard technology transfer process, identifying the market opportunity, developing a business plan and pursuing financing. Every start-up has some common steps to get the business off the ground as outlined in this section. These steps may help the inventors in a University to balance their role both as faculty, research staff and students as well as part of the company team.

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The inventor's role should not include representing the potential licensee or negotiating directly with ITCU, as this approach is based on the principle that SPA Bhopal faculty/staffs cannot represent the company and the university at the same time.

The research results – the underlying data, the processes, and final results of research – must not be secret and must also be accessible by all interested persons. Entrepreneurs are not permitted to delay disclosure of their research results by postponing presentations or slowing down the process of manuscript submissions. They will need to describe the general aspects of the invention to potential investors in order to generate any interest.

A patent filing allows the investors to claim and prove a filing date of their ideas as described in the application, which can be useful. However, a patent application does not provide the rights of an issued patent to prevent others from practicing the invention. Understanding that delays must be avoided, if an inventor or entrepreneur wants to discuss the details of a technology while the work is being prepared for publication and prior to filing a patent application or other IP protection, a Non-Disclosure Agreement (NDA) will be used to facilitate open discussions and prevent the loss of patent rights from inadvertent disclosure.

Inventors usually want to be sure the entrepreneur has an option or license to the technology before investing in the company but the entrepreneur often does not know what kind of license (field of use, financials, etc.) the investor requires. One solution is for an entrepreneur to take an option to a license with the terms of the license to be negotiated later.

When a technology is either optioned or licensed to an inventor's start-up company, the inventors are required to stop initiating new work on that technology at ITCU. Subject to conflict of interest (COI) review, the final separation between a company and ITCU is determined on a case-by-case basis, but it must be completed within 12 months.

TYPICAL LICENSING TERMS FOR SPA BHOPAL'S AGREEMENTS WITH START-UP COMPANIES

Intellectual Property (IP) Rights are the exclusive legal rights granted to creators, while IP licensing is a contractual agreement where the IP rights owner (Licensor) permits another party (Licensee) to use their IP in exchange of compensation, with the owner retaining ultimate ownership. License agreements have both financial and non-financial terms. These vary based on the particular set of facts for each agreement – for example, the stage of development, the field of use, and the commercialization risks are all taken into consideration. Typical terms consist of:

- Negotiated financial terms including issue and annual fees, payments when technical milestones are achieved, royalties on product sales, and an assignment fee. Exclusive licensees are generally expected to pay patent expenses. Financial terms may also include a small, minority share of equity in the company.
- Field of use restrictions, since a start-up company often does not have the resources to develop all the applications of an invention.
- Diligence terms to ensure reasonable progress in the growing of the company and commercializing the invention.

Many entrepreneurs are concerned that the financial terms are overly onerous and unreasonable. ITCU's goal is to negotiate an agreement that is fair and reasonable based on experience, on the industry and on how the SPA Bhopal technology fits into the ultimate product. Because the institute needs to maintain an arms-length relationship in all its business transactions, license negotiations and the final license agreement for SPA Bhopal-associated companies must fall within the normal range of terms and conditions of similar licenses to any other company (taking into consideration the unique circumstances of each technology and transaction).

#More detail information regarding Licensing terms can be developed in future

NETWORK AND SEEK INPUT

SPA Bhopal cultivates a strong entrepreneurial spirit and has many resources to help with networking and provide guidance for a path to commercialization. SPA Bhopal offers learning on Innovation and Entrepreneurship in its Design programme. Entrepreneurs should be careful to separate their outside start-up activities from their SPA Bhopal responsibilities. For example, faculties are expected to use the time they are allowed for outside professional activities, and students need to consult with advisors overseeing their academic progress.

DEVELOP A BUSINESS CASE

A thoughtful business case developed by entrepreneurs should include a plan for developing the technology with market potentiality and must be able to compete to raise fund from investors for attaining sufficient revenue to sustain and grow the company.

Several key factors should be considered when deciding to form a start-up company:

Technology innovation and patent/IP position – Is broad patent coverage possible? Are there background patents owned by others? Will the company have freedom-to-operate to develop the product?

Development risk – How far along is the technology? How much time and money is required to bring a product to market?

Development costs versus investment return – Can investors obtain their required rates of return?

Product strategy – Does the technology lend itself to opportunities for multiple products/platforms?

Market size, dynamic and potential – Is the market big enough? Is it controlled by a few players? Is there a healthy growth trend?

Financial potential – What market share can be obtained? Is it worth the effort?

The business plan should have a clear vision, so that the investors can take interest in investing in start-ups with high growth potential. The business plan should have a clear statement about newness of the concept, competitive advantage (including patent/IP position), market and financial potential, and proven management team. The business plan is generally a confidential document and should be carefully distributed.

Components of a typical business plan include:

Company name

Mission statement – A guiding vision for the company

Current market situation – How big is the market? What are its critical problems and shortcomings? How is the landscape changing? Who are the competitors? Is it a consolidated or fragmented industry?

The company's solutions – Which products or methods will be developed? How long will it take? What are its applications? What are the company's unique advantages and are those advantages sustainable? How will the current market change due to the company's products, methods, etc.?

Patent/IP landscape

Marketing and sales strategy – Pricing, Product, Placement. How will the target market know about the product? Which sales distribution channels will be used?

5-10 year strategic/financial plan:

Financial projections – When will the company break even?

Key milestones required to meet financial projections.

Key metrics to be measured and tracked.

Up-to-date key assumptions based on a competitor's response.

Funding requirements.

Management team – Members with resumes/CV and roles.

Timeline and key milestones

Risk factors and mitigation measures

EXIT STRATEGY

Investors plan to recoup their investments via exit strategies. Typically, a VC hopes to sale its equity in a portfolio company within 3 – 7 years, ideally through an initial public offering (IPO). Another exit strategy could be through mergers and acquisitions (M&A) instead of an IPO.

PITFALLS

New company formation is a high risk proposition. Some common problems that can cause academic start-ups to fail are:

- **Inexperienced management** – A strong, experienced, cohesive team is required for a successful start-up company. Problems can arise if founders or other members of the team do not have enough start-up and business experience or if founders, new management, and investors do not have the same strategic vision.
- **Lack of funding** – A start-up needs sufficient capital to overcome technical challenges, reach critical business milestones, and progress to the next phase of development. To attract investors the company must have a solid business plan and a strong management team.
- **Technology does not meet commercial need** – Sometimes the science is innovative and exciting but does not correlate to a critical commercial need, or current solutions are still better than the new technology.
- **Timing** – Even when a commercial need exists, the company may miss the market. Sometimes this is because the market is not ready for a product. Sometimes it is because the product is too late to the market and the need has already been filled by a different technology or competitors have leapfrogged over the company with an even better product.
- **Marginal niche** – If the target market is smaller than expected the company may not meet its financial targets.
- **Bad luck** – Sometimes events outside of the entrepreneur's control can negatively impact a company. But even failure is often seen as one of company's greatest strength.

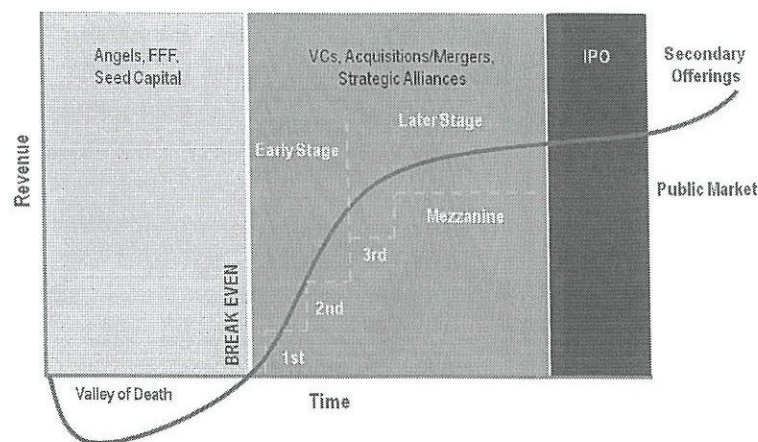
PURSUE INVESTORS/FUNDING

Commercializing technology is typically a capital-intensive process, with the exception of some software companies. Entrepreneurs need to present their opportunity to people with the funds to help them make it happen. Typically, these are venture capitalists, angel investors and perhaps in the initial stages – friends and relatives.

The most common forms of technology start-up funding are angel investing and venture capital (VC). In the very early stages of start-ups, entrepreneurs raise funds on their own and through friends and family funds (FFF). However, technology commercialization often requires multiple rounds of funding from multiple sources.

Angels and Venture Capitalists (VC's) are private investors who take on high risk ventures with goals of high returns. Return requirements vary based on industry and stage of funding, but many investors seek 10X their initial investment over 5 years.

START-UP FINANCING CYCLE



This graphic is an example of a start-up financing cycle using traditional funding sources, through an initial public offering (IPO). There could be more or fewer rounds of funding. The 1st, 2nd, and 3rd rounds can be equivalent to Series A, B, and C.

Ref: https://en.wikipedia.org/wiki/File:Startup_financing_cycle.svg, Browsed on December 08, 2021

HOW INVESTORS EVALUATE A COMPANY

Investors listen to pitches constantly and only a small portion of start-ups get funding. The investors will determine if the start-up meets their strategic and financial goals and if the company fits into their current portfolio of investments. VC funds are targeting at least an overall 20% annual return on the fund which is significantly higher than other investment vehicles such as stocks and bonds.

Few basic steps to calculate the valuation of a company at the early stage:

- Figure out how much money one needs to grow to a point where one will show significant growth and raise the next round of investment.
- Figure out how much of the company to give to the investor. It could not be anything more than 50% because that will leave the founder of the company, with little incentive to work hard. Also, it could not be 40%, because that will leave very little equity for investors in your next round. 30% would be reasonable if the founder is getting a large chunk of seed money.
- One needs to convince the investor about how fast the company will grow.

Funders and Founders offers an info-graphic explanation of "How Start-up Valuation Works – Measuring a Company's Potential" (<https://blog.adioma.com/how-startup-valuation-works-infographic/>).

Angel Investing

Angel investors are individuals who have gained accredited investor status and seek to invest at the early stages of startups. These types of investments are risky and usually do not represent more than 10% of the angel investor's portfolio. Angel investors provide more favorable

terms compared to other lenders, since they usually invest in the entrepreneur starting the business rather than the viability of the business. Essentially, angel investors are the opposite of venture capitalists.

Venture Capital

A venture capitalist (VC) is a private equity investor that provides capital to companies exhibiting high growth potential in exchange for an equity stake. Venture capitalists are willing to risk investing in small companies because they can earn a massive return on their investments if these companies are a success. Venture capitalists are usually formed as limited partnerships where the partners invest in the VC fund. Once promising emerging growth companies have been identified, the pooled investor capital is deployed to fund these firms in exchange for a sizable stake of equity. Contrary to public opinion, VCs do not normally fund startups from the onset. Rather, they seek to target firms that are at the stage where they are looking to commercialize their idea. The VC fund will buy a stake in these firms, nurture their growth and look to cash out with a substantial return on investment (ROI). VC looks for a strong management team, a large potential market and a unique product or service with a strong competitive advantage. They also look for opportunities in industries that they are familiar with, and the chance to own a large percentage of the company so that they can influence its direction.

<https://www.investopedia.com/terms/a/angelinvestor.asp>, Browsed on December 08, 2021

Non-traditional Funding

Start-ups may also investigate and pursue funding non-traditional sources. Some examples of these are:

- Investment in the entrepreneurial activities should be a part of the institutional financial strategy. Minimum 1% fund of the total

annual budget of the institution should be allocated for funding and supporting innovation and startups related activities through creation of separate 'Innovation fund'.

- **Government grants** – Effort can be made to bring in external funds through government (state and central) such as DST, DBT, MoE, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME etc. and non-government, private and corporate sources under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
- **Banks** – Banks do not usually participate in equity investments in new companies, but they are a source of loans, particularly for capital purchases when there is some kind of collateral (such as large equipment).
- **Crowdfunding** – it is the use of small amounts of capital from a large number of individuals of finance a new business venture. Social media and crowdfunding websites are used to bring investors and entrepreneurs together, with the potential to increase entrepreneurship by expanding the pool of investors beyond the traditional circle of owners, relatives and venture capitalists.

Equity

Equity represents the value that would be returned to a company's shareholders if all of the assets were liquidated and all of the company's debts were paid off. In the case of acquisition, it is the value of company sale minus any liabilities owned by the company not transferred with the sale. In addition, shareholder equity can represent the book value of a company. Equity can sometimes be offered as payment-in-kind. Equity can be found on a company's balance sheet and is one of the most common pieces of data employed by analysts to assess the financial health of a company.

Shareholders' Equity = Total Assets – Total Liabilities