

National Innovation and Start-Up Policy



Dr. Babasaheb Ambedkar Technological University Maharashtra State

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Dr. Babasaheb Ambedkar Technological University Lonere

National Innovation and Start-Up Policy

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Preamble

Dr. Babasaheb Ambedkar technological University has been at the forefront of promoting creativity and incubating business ideas in order to provide an atmosphere where its students and faculty can explore their potential. Members of the faculty are continuously engaged in the generation and distribution of information, just as students are finding ways to launch business ideas to influence society and solve problems in the real world.

In many cutting-edge science and technology fields, a significant number of R&D activities are being carried out by faculty members and students. Most of these research findings, however do not translate into consumer goods, benefiting society in general, for a variety of reasons, including the industry's lack of interest in marketing modern and futuristic innovations.

Therefore, University proposes that interested faculty members and students be encouraged to open companies, to be on the board of directors of such companies in the capacity of a director, chairman or any such function. Faculty members are expected to make every effort to balance their academic responsibilities while assuming the position above.

The University strives to provide an environment where its institutions and its graduates can achieve the full potential of the best trained youth. When a significant number of its citizens have access to activities that are in line with their life goals, every culture peaks and this involves the creation of increasingly complex skills. What lies behind the evolution of culture is the need to acquire increasingly refined skills.

University aims to kick-start an entrepreneurial community by seamlessly combining the technical and creative skills of students to solve contemporary problems, leading to increased knowledge, wealth and jobs.

Executive Summary

This Document addresses a plan of creating and operating an National innovation and start-up policy for Dr. Babasaheb Ambedkar Technological University, Lonere. It is developed on the basis of comprehensive surveys on the technology developments, available human resource of aspiring engineering and technology graduates, and industry trends. The policy inline with focus of the central government on entrepreneurial projects to leverage the talent

and aspirations of engineering graduates of the University for opportunity creation and wealth generation while meeting the immediate and future needs of the society and industry alike.

This policy will focus on building a culture, delivering effective teaching, learning, innovation building, skills and career development , industry connect and social responsibility initiatives.

The framework is designed by Dr. Babasaheb Ambedkar Technological University with an committee of experienced and eminent technical Experts from nearby Industry, Senior Faculty Members of the University, Alumni and Entrepreneurs from the Host Institutions with active participation of Faculty and support staff of the University.

Purpose

The mission of the policy is to encourage and support establishment and growth of technology-based start-ups which can enable students and faculty to innovate and prototype their potential ideas with industrial standards and support from Government, industry and reputed academic institutions around the world and help them to realize their potentials

By fulfilling this mission, the framework shall contribute to job creation, improve employability of graduates, enhance economic health of the region and meet the demands of the society and industry across the entire State.

Short term objectives

1. To help student groups to prototype their ideas.
2. To improve innovation, creative and design thinking among student community.
3. Incubation facility for faculty driven start-up and student/Alumni start-up.
4. Organize FDP, seminars and workshops, distinguish talks for students, Faculty and Alumni and promote entrepreneurial culture.
5. Strengthen institute industry interaction cell activity and effectively use the outcomes for achieving the mission.

Long term objectives

1. Associate with DST, CII, MSME and other academic institutions for transferring world class facility for University activities.
2. Improve quality of research work among students and to attain patent which can be commercially used in production.
3. Provide a platform for students to develop innovative products with global recognition and generate business opportunities.
4. Generate revenues through consultancy work and student start-ups.
5. Spread awareness to students and faculty regarding IPR related activities.
6. Strategic partnership linkage with
 - (a) Entrepreneurship Development Institute of India(EDII), Ahmedabad
 - (b) National Innovation Foundation (NIF) of India to submit ideas and apply for schemes
 - (c) Procure fund from AICTE for Entrepreneurship Development Cell
 - (d) Commencement of Masters/MBA programs in Entrepreneurship

1. Strategies and Governance

a. Innovation and Startup Council

Council's composition, in line with AICTE-MHRD recommendations, is proposed to be as follows:

Senior Faculty Member of the Institution	President	1			
Faculty Member	Convener	1			
Faculty Member	Member	1			
Representative from nearby Incubation Centre	Member	1			
Representatives of SIDBI / NABARD / Lead Bank / Investor or Local entrepreneur	Member	1			
Technical Experts from nearby Industry	Member	2			
Alumni Entrepreneurs from the Host Institutions (Optional)	Member	2			
UG Students from the host institution	Member	1st Year	2nd Year	3rd Year	4th Year
		2	2	3	3
PG/ PhD Students		1/2			
Patent Expert (Optional)	Special Invitee	1			

The major focus of Council will be:

- To create a vibrant innovation ecosystem
- Startup / Entrepreneurship supporting initiatives
- Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework (ARIIA)
- Establish an ecosystem for scouting ideas and pre-incubator for ideas
- Develop better cognitive abilities amongst students

b. Charter of Innovation and Startup Council

The functions of council will be:

- To conduct various innovation and entrepreneurship-related activities prescribed by MIC in a time-bound fashion.

- Identify and reward innovations and share success stories.
- Organize periodic workshops, seminars and interactions with entrepreneurs, investors and professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Create ICT's innovation portal to highlight innovative projects carried out by the Institution's faculty members and students.
- Organize Hackathons, Idea Competitions, Mini-challenges, etc. with the involvement of industrial partners.

2. Startups Enabling Institutional Infrastructure

Creation of pre-incubation and incubation facilities for nurturing innovations and startups in institutions should be undertaken. Incubation and Innovation need to be organically interlinked. Without innovation, new enterprises are unlikely to succeed. The goal of the effort should be to link INNOVATION to ENTREPRISES to FINANCIAL SUCCESS.

a. All Institutions are advised to create facilities within their institution for supporting pre-incubation (e.g. IICs as per the guidelines by MHRD's Innovation Cell, EDC, IEDC, New-Gen IEDC, Innovation Cell, Startup Cell, Student Clubs, etc.) and Incubation/ acceleration by mobilizing resources from internal and external sources.

b. This Pre-Incubation/Incubation facility should be accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.

c. Pre-incubation facilities may or may not be a separately registered entity or Special Purpose Vehicle

(SPV), but we recommend that 'Incubation cum Technology Commercialization Unit' (ITCU) should be a separate entity preferably registered under Section-8 of Company Act 2013 or 'Society' registered under Society Registration Act with independent governance structure. This will allow more freedom to Incubators in decision making with less administrative hassles for executing the programs related to innovation, IPR and Startups. Moreover, they will have better accountability towards investors supporting the incubation facility.

d. Institutions may offer mentoring and other relevant services through Pre-incubation/Incubation units in-return for fees, equity sharing and (or) zero payment basis. The modalities regarding Equity Sharing in Startups supported through these units will depend upon the nature of services offered by these units and are elaborately explained in Section 3.

3. Nurturing Innovations and Start-ups

a. **University/Institutes** are expected to establish processes and mechanisms for easy creation and nurturing of Start-ups/enterprises by students (UG, PG, Ph.D.), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions.

b. While defining their processes, institutions will ensure to achieve following:

i. Incubation support: Offer access to pre-incubation & Incubation facility to start ups by students, staff and faculty for mutually acceptable time-frame.

In case an institute doesn't have a dedicated facility/ infrastructure of its own, then it may reach out to nearest incubation facilities **in affiliated institutes/University** in order to facilitate access to their students, staff and faculty.

Or

In case an institute doesn't have a dedicated facility/ infrastructure of its own, then they can apply for incubation centre for their institutes.

ii. Will allow licensing of IPR from institute to start up: Ideally students and faculty members intending to initiate a start up based on the technology developed or co-developed by them or the technology owned by the institute, should be allowed to take a license on the said technology on easy term, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden.

iii. Will allow setting up a start up (including social start ups) and working part-time for the start ups while studying / working: HEIs may allow their students / staff to work on their innovative projects and setting up start ups (including Social Start ups) or work as intern / part-time in start ups (incubated in any recognized HEIs/Incubators) while studying / working. Student Entrepreneurs may earn credits for working on innovative prototypes/Business Models. Institute may need to develop clear guidelines to formalize this mechanism. Student inventors may also be allowed to opt for start up in place of their mini project/ major project, seminars, summer trainings. The area in which student wants to initiate a start up may be interdisciplinary or multidisciplinary. However, the student must describe how they will separate and clearly distinguish their ongoing research activities as a student from the work being conducted at the start up.

Guides for mini project/ major project, and seminars should be allocated according to the working area/area of interest.

Faculty should encourage the students for the modern emerging technologies.

C. Students who are under incubation, but are pursuing some entrepreneurial ventures while studying should be allowed to use their address in the institute to register their company with due permission from the institution.

d. Students entrepreneurs should be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the institute.

e. **University/Institutes** should allow their students to take a semester/year break (or even more depending upon the decision of review committee constituted by the institute) to work on their start ups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Institute should set up a review committee for review of start up by students, and based on the progress made, it may consider giving appropriate credits for academics.

f. The institute should explore provision of accommodation to the entrepreneurs within the campus for some period of time.

g. Allow faculty and staff to take off for a semester / year (or even more depending upon the decision of review committee constituted by the institute) as sabbatical/ unpaid leave/ casual leave/ earned leave for working on startups and come back. Institution should consider allowing use of its resource to faculty/students/staff wishing to establish start up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.

h. Start a part-time/full time MS/ MBA/ PGDM/**M.Tech./M.E.** (Innovation, entrepreneurship and venture development) program where one can get degree while incubating and nurturing a startup company. AICTE has already issued guidelines for a similar program.

i. Institute will facilitate the startup activities/ technology development by allowing students/ faculty/ staff to use institute infrastructure and facilities, as per the choice of the potential entrepreneur in the following manners:

i Short-term/ six-month/ one-year part-time entrepreneurship training.

ii Mentorship support on regular basis.

iii Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, productcosting, marketing, brand-development, human resource management as well as law and regulations impacting a business.

iv Institute may also link the startups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed-fund once the incubation activities mature.

v License institute IPR as discussed in section 4 below.

j. In return of the services and facilities, institute may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, support provided and use of institute's IPR (a limit of 9.5% is suggested so that institute has no legal liability arising out of startup. The institute should normally take much lower equity share, unless its full-time faculty/ staff have substantial shares). Other factors for consideration should be space, infrastructure, mentorship support, seedfunds, support for accounts, legal, patents etc.

- For staff and faculty, institute can take no-more than 20% of shares that staff / faculty takes while drawing full salary from the institution; however, this share will be within the 9.5% cap of company shares, listed above.

- No restriction on shares that faculty / staff can take, as long as they do not spend more than 20% of office time on the startup in advisory or consultative role and do not compromise with their existing academic and administrative work / duties. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, then they will go on sabbatical/ leave without pay/ earned leave.

- In case of compulsory equity model, Startup may be given a cooling period of 3 months to use incubation services on rental basis to take a final decision based on satisfaction of services offered by the institute/incubator. In that case, during the cooling period, institute cannot force startup to issue equity on the first day of granting incubation support.

k. The institute should also provide services based on mixture of equity, fee-based and/ or zero payment model. So, a startup may choose to avail only the support, not seed funding, by the institute on rental basis.

- l. Institute could extend this startup facility to alumni of the institute as well as outsiders.
- m. Participation in start up related activities needs to be considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and must be considered while evaluating the annual performance of the faculty. Every faculty **should** be encouraged to mentor at least one startup.
- n. Product development and commercialization as well as participating and nurturing of startups would now be added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities (in addition to minimum required teaching and guidance) and then respective faculty are evaluated accordingly for their performance and promotion.
- o. Institutions might also need to update/change/revise performance evaluation policies for faculty and staff as stated above.
- p. Institute should ensure that at no stage any liability accrue to it because of any activity of any startup.
- q. Where a student/ faculty startup policy is pre-existing in an institute, then the institute may consider modifying their policy in spirit of these guidelines.

4. Product Ownership Rights for Technologies Developed at Institute

a. When institute facilities / funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the institute.

i. Inventors and institute could together license the product / IPR to any commercial organisation, with inventors having the primary say. License fees could be either / or a mix of

1. Upfront fees or one-time technology transfer fees

2. Royalty as a percentage of sale-price

3. Shares in the company licensing the product

ii. An institute may not be allowed to hold the equity as per the current statute, so SPV may be requested to hold equity on their behalf.

iii. If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be no more than 4% of sale price, preferably 1 to 2%, unless it is pure software product. If it is shares in the company, shares will again be 1% to 4%. For a pure software product licensing, there may be a revenue sharing to be mutually decided between the institute and the incubated company.

b. On the other hand, if product/ IPR is developed by innovators not using any institute facilities, outside office hours (for staff and faculty) or not as a part of curriculum by student, then product/ IPR will be entirely owned by inventors in proportion to the contributions made by them. In this case, inventors can decide to license the technology to third parties or use the technology the way they deem fit.

c. If there is a dispute in ownership, a minimum five membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialisation), two of the institute's alumni/ industry experts (having experience in technology commercialisation) and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this, hopefully to everybody's satisfaction. Institute can use alumni/ faculty of other institutes as members, if they cannot find sufficiently experienced alumni / faculty of their own.

d. Institute IPR cell or incubation center will only be a coordinator and facilitator for providing services to faculty, staff and students. They will have no say on how the invention is carried out, how it is patented or how it is to be licensed. If institute is to pay for patent

filing, they can have a committee which can examine whether the IPR is worth patenting. The committee should consist of faculty who have experience and excelled in technology translation. If inventors are using their own funds or noninstitute funds, then they alone should have a say in patenting.

e. All institute's decision-making body with respect to incubation / IPR / technology-licensing will consist of faculty and experts who have excelled in technology translation. Other faculty in the department / institute will have no say, including heads of department, heads of institutes, deans or registrars.

f. Interdisciplinary research and publication on startup and entrepreneurship should be promoted by the institutions.

5. Organizational Capacity, Human Resources and Incentives

a. University/ Institute should recruit staff that have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude. This will help in fostering the I&E culture.

i. Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote I&E.

ii. To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of staff should be developed with constant up skilling which is done by organizing workshop and training by experts.

b. Faculty and departments of the University/institutes have to work in coherence and cross-departmental linkages should be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.

c. Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally.

d. Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development.

e. In order to attract and retain right people, institute should develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.

i. The reward system for the staff may include sabbaticals, office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc.

ii. The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowships, associate ships, etc.

iii. A performance matrix should be developed and used for evaluation of annual performance of faculty.

6. Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level

a. To ensure exposure of maximum students to innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms should be devised at University/institution level.

i. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability should be a part of the institutional entrepreneurial agenda.

ii. Students/ staff should be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers. Entrepreneurs should innovate with focus on the market niche.

iii. Students should be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills (e.g. design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition should be routinely organized.

iv. To prepare the students for creating the start up through the education, integration of education activities with enterprise-related activities should be done.

b. The University/institute should link their start ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding real challenges which

may be faced by them while going through the innovation funnel and will increase the probability of success.

c. The institute should establish Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and allocate appropriate budget for its activities. IICs should guide institutions in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts should be undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.

- d. For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs.
- i. Networking events must be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
- ii. Provide business incubation facilities: premises at subsidised cost. Laboratories, research facilities, IT services, training, mentoring, etc. should be accessible to the new start-ups.
- iii. A culture needs to be promoted to understand that money is not FREE and is risk capital. The entrepreneur must utilize these funds and return. While funding is taking risk on the entrepreneur, it is an obligation of the entrepreneur to make every effort possible to prove that the funding agency did right in funding him/ her.
- e. Institute must develop a ready reckoner of Innovation Tool Kit, which must be kept on the homepage on institute's website to answer the doubts and queries of the innovators and enlisting the facilities available at the institute.

7. Norms for Faculty Startups

a. For better coordination of the entrepreneurial activities, norms for faculty to do startups should be created by the institutes. Only those technologies should be taken for faculty startups which originate from within the same institute.

i. Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.

ii. Institutes should work on developing a policy on 'conflict of interests' to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the startup activities.

iii. Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.

iv. In case of a faculty startup which consists of their student, the faculty should not give students any advancement or demotion in their academics based on their work in the startup and vice versa.

b. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave.

c. Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/ company.

d. 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.

e. Faculty must not accept gifts from the startup.

f. Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa.

8. Pedagogy and Learning Interventions for Entrepreneurship Development

a. Diversified approach should be adopted to produce desirable learning outcomes, which should include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery.

i. Student clubs/ bodies/ departments must be created for organizing competitions, bootcamps, workshops, awards, etc. These bodies should be involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.

ii. Institutes should start annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.

iii. For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by startups.

iv. Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it. Very importantly, this should be a part of institute's philosophy and culture.

v. Innovation champions should be nominated from within the students/ faculty/ staff for each department/ stream of study. Institutes can conduct a departmental or institute level tournament to do so.

b. Entrepreneurship education should be imparted to students at curricular/ co-curricular/ extra-curricular level through elective/ short term or long-term courses on innovation, entrepreneurship and venture development. Validated learning outcomes should be made available to the students.

i. Integration of expertise of the external stakeholders should be done in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment.

ii. In the beginning of every academic session, institute should conduct an induction program about the importance of I&E so that freshly inducted students are made aware about the entrepreneurial agenda of the institute and available support systems. Curriculum for the entrepreneurship education should be continuously updated based on entrepreneurship research outcomes. This should also include case studies on failures.

iii. Institute should organize consultancy session by experts on regular basis for the students who are willing to do start up.

iv. Industry linkages should be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.

v. Sensitization of students should be done for their understanding on expected learning outcomes.

vi. Student innovators, startups, experts must be engaged in the dialogue process while developing the strategy so that it becomes need based.

9. Collaboration, Co-creation, Business Relationships and Knowledge Exchange

- a. Stakeholder engagement should be given prime importance in the entrepreneurial agenda of the institute. Institutes should find potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.
 - i. To inviting stakeholders (usually customers) to participate in a design or problem-solving process to produce a mutually valued outcome.
 - ii. To encourage co-creation, bi-directional flow/exchange of knowledge and people should be ensured between institutes such as Startup, incubators, etc.
 - iii. Institute should open up the opportunities for staff, faculty and students to allow exchange of ideas and knowledge through meetings, workshops, lectures for better engagement of collaborators.
 - iv. Mechanism should be developed by the institute to capitalize on the knowledge gained through these collaborations.
 - v. Care must be taken to ensure that events DON'T BECOME an end goal. First focus of the incubator should be to create successful ventures.
- b. The institute should develop policy and guidelines for forming and managing the relationships with external stakeholders including private industries.
- c. Knowledge exchange through collaboration and partnership should be made a part of institutional policy and institutes must provide support mechanisms and guidance for creating, managing and coordinating these relationships.
 - i. Through formal and informal mechanisms such as internships, startup, innovation programmes, etc., faculty, staff and students of the institutes should be given the opportunities to connect with their external environment.
 - ii. Connect of the institute with the external environment must be leveraged in form of absorbing information and experience from the external ecosystem into the institute's environment.
 - iii. Single Point of Contact (SPOC) mechanism should be created in the institute for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
 - iv. Mechanisms should be devised by the institutions to ensure maximum

exploitation of entrepreneurial opportunities with industrial and commercial collaborators.

- v. Knowledge management should be done by the institute through development of innovation knowledge platform using in house Information & Communication Technology (ICT) capabilities.

10. Entrepreneurial Impact Assessment

- a. Impact assessment of institute's entrepreneurial initiatives pre-incubation, incubation, and entrepreneurship education performed regularly using well defined evaluation parameters.
 - i. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should be assessed.
 - ii. Number of start ups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes should be recorded and used for impact assessment.
 - iii. Impact should be measured for the support system provided by the institute to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.
- b. Formulation of strategy and impact assessment should go hand in hand. The information on impact of the activities should be actively used while developing and reviewing the entrepreneurial strategy.
- c. Impact assessment for measuring the success should be in terms of sustainable social, financial and technological impact in the market. For innovations at pre-commercial stage, development of sustainable enterprise model is critical. COMMERCIAL success is the ONLY measure in long run.

ANNEXURE-I

1. Committee Members

Sr. No.	Name	Designation on Board
1	Dr. S. L. Nalbalwar	Coordinator
2	Dr. M.S. Tandale	Member
3	Dr. V. G. Sargade	Member
4	Dr. S. V. Khobragade	Member
5	Dr. Sonali Chaudhari	Member
6	Prof. Suvarna Dhongade	Member
7	Dr. H. S. Joshi	Member
8	Dr. S. M. Jadhav	Member
9	Dr. R. P Kate	Member
10	Dr. Neeraj Agrawal	Member
11	Dr. N.S. Jadhav	Member
12	Dr. Pallavi Ingle	Member
12	Dr. Munir Sayyad	Member, Industry Expert
13	Tejas Mahagaonkar	Member (Research Scholar)
14	Mr. Manpreet Singh	Member, Industry Expert

2. Policy Problem or Thrust Area

Sr. No.	Plan
1	Dr. Babasaheb Ambedkar Technological University Strategies & Governance for Promoting Innovation & Entrepreneurship
2	Creating Innovation Pipeline and Pathways for Entrepreneurs
3	Building Organizational Capacity, Human Resources and Incentives
4	Collaboration Co-creation and Business Relationship and knowledge Exchange
5	Norms for Faculty & Students Driven Innovations and Start-ups
6	Incentivizing Faculty & Students for Entrepreneurship
7	Norms for Faculty Start-up
8	Incubation & Pre-Incubation support
9	IP Ownership Rights for Technologies Developed at MCKVIE
10	IoT
11	Cyber Security
12	IT
13	Data Science
14	Artificial Intelligence and Machine learning
15	Agriculture Industry
16	Mechatronics
17	Robotics
18	Additive Manufacturing
19	Autonomous Vehicle
20	Food Science and Techonology
21	Blockchain

3. Benchmark- KPI Monitor & Evaluation

Hierarchy of Objectives	Key Performance Indicators (KPIs)	Means and Verification
Vision	Increase in Self-Employment Rate , Established Start-ups , Students Satisfaction Ratio, Monthly Website Traffic, No. of Workshops, Seminars and other activities	ARIIA,NIRF Rankings, Feedback from Students
Goal/ Impact	Graduate students will choose Entrepreneurship as career , Enable Environment with multiple level of support for innovation & Entrepreneurship in the University, Student and Graduates Practice Entrepreneurship, More in No. of Ideas Generated, No. of Patents, No. of Ideas Prototypes, No. of MoUs with Industries	Reports on Average Monthly or Yearly Performance, Biannual Survey, ARIIA,NIRF Rankings
Outcomes	Student & faculty motivated to start any entrepreneurial activity, IPR/Innovations developed for commercialization, Network Established with connecting multiple stakeholders & Ecosystem Enablers Revenue Growth ,Net Profit Margin, Operational Cash Flow, Satisfaction over Advisory services offered to Innovators & Early Stage Entrepreneurs	Reports on Average Monthly or Yearly Performance, Biannual Survey
Outputs	<p>Research Studies on Entrepreneurship published, Award and supports to identified innovator, national and regional award and campus Hackathon like events organized</p> <p>Regional, National and International linkages established for the start-up & innovation, Budget allocation and Spend ratio for the start-up</p> <p>Converting Student projects to (commercialize) Innovations, Coverage of Students through entrepreneurship Education, Student & faculty exposed to awareness/orientation building programs;</p> <p>MOOC, Class Room, Experiential Learning programs etc., beneficiaries are accessing the infrastructure & facilities per day, month & Year, In-house trained professional developed for services as Representatives of experts & entrepreneurial students across Dept & Disciplines.</p> <p>IPR based product/services generated and registration filed, Beneficiaries generated under various schemes and programs leveraged and converged at Start-up Cell</p>	Biannual Survey, Quarterly News Letter, Monthly progress report, Review Meetings

4. Tentative plan for next 5 years:

Sr. No.	Activity	Frequency
1.	Workshop on “Entrepreneurship and Innovation as Career Opportunity”	Twice a Year
2.	Workshop on “Problem Solving/ Design Thinking/ Ideation Workshop/ Campus Hackathon”	Twice a Year
3.	Seminar on IPR	Twice a Year
4.	Consultancy Workshop for General Public about Startups	Once a Year
5.	Institute Industry Interaction	Once a Month
6.	Form a patent filing committee	Once a Year
7.	Workshop on Problem Solving/Design Thinking/Ideation Workshop/ Campus Hackathon etc	Once a Year
8.	Field/Exposure Visit to Village/Society /School/Industry/Market - Identity real Life Problem	Once a Year
9.	Special Talk on My Story - Entrepreneur’s Life & Crossroad - Motivational Speak - To be Share by Entrepreneurs	Once a Year
10.	Product Development Phases - Story Telling - (Innovators in Campus)	Once a Year
11.	National Conference/workshop on Start-up/Social Innovation & Entrepreneurship	Once a Year
12.	Demo Day - Exhibition Cum Demo for PoCs & Mentorship Session for Innovators (or) Student Entrepreneurs	Once a Year
13.	Internship at Innovation & Start-up Centre/Startups/Incubation Unit etc. during Semester Break	Once a Year
14.	Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre/Technology Transfer Centre	Once a Year
15.	Business Plan Contest	Once a Year
16.	Awareness/Mentoring Session on IPR & IP Management for Innovation and Start-ups	Once a Year
17.	Field/Exposure Visit to Design Centre/Makers’ Space/Fab Lab/Prototype Lab/Tinkering Lab etc	Once a Year
18.	Seminar on Accelerator/Incubation - Opportunity for Student Faculty - Early Stage Entrepreneurs	Once a Year
19.	Seminar on Understanding Angel and Venture Capital Funding - What is there for Early Stage Innovator & Entrepreneurs	Once a Year
20.	Bootcamp for Innovation product development	Once a Year

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21.	Innovation Day Celebrations(Birthday of Dr.APJ)	Once a Year
22.	National Science Day	Once a Year
23.	Workshop Funding Opportunities for Innovation and Entrepreneurship Development	Once a Year
24.	University Campus Hackathon	Once a Year
25.	Short Term Training course on Innovation /Start-up & Entrepreneurship	Once a Year
26.	Innovation and Entrepreneurship Annual Day	Once a Year