



ITM - INNOVATION & STARTUP Policy-2021

A Guiding Framework



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Approval Letter

The foregoing policy document entitled **“ITM Innovation & Startup Policy-2021”** is hereby approved for formal submission to Innovation Cell, Ministry of Education, Government of India. It is understood that by this approval, the undersigned do not necessarily endorse any conclusion or opinion therein, but approve the policy document for the purpose for which it is submitted.

Dr. Meenakshi Mazumdar
(Director)

1. Strategies and Governance

a. Vision and Mission

1. Vision: To implement the new education policy by creating an academic atmosphere for innovation, entrepreneurship and startups.
2. Mission: To facilitate development of entrepreneurial ecosystem in our institution by introducing modern learning methodology for implementing engineering knowledge to find out the solution of real life challenges.

b. Entrepreneurial agenda headed by

1. We have formed “Institute Innovation Cell” that will be driven by Mr. Pawan Tiwari, Associate Professor, CSE Department, ITM. This cell is central governing body for entire activities regarding Innovation*, Entrepreneurship* and Startups*

(* Keywords as per National INNOVATION and STARTUP Policy 2019 for Students and Faculty govt. of India)

c. A sustainable financial strategy

1. Minimum 1% fund of the total annual budget of the institute will be allocated funding and supporting innovation and startup related activities through creation of separate innovation fund.
2. Will encourage raising funds from diverse sources. Bringing in external funding through government (state and central) such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and non-government sources.
3. Will approach private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
4. Will also raise funding through sponsorships and donations.
5. Will engage alumni network for promoting Innovation & Entrepreneurship (I&E).

d. For expediting the decision making

1. Hierarchy: Only one position which is the Coordinator, “Institute Innovation Cell”

e. For Promotion of entrepreneurial agenda

1. conferences,
2. convocations,
3. workshops
4. Newsletter / Scheduler (weekly)
5. Notices

f. Student and faculty startup Policy and action plan

1. **Policy for Student:** out of the overall duration of the degree, he/she should be involved for one year or two semesters in minimum one startup or equivalent entrepreneurial activity approved by “Institute Innovation Cell”.
2. **Policy for Faculty:** in one academic session, he/she should be involved in minimum one startup as owner or in minimum two startup as mentor.
3. **Action Plan:** Total number of student’s project work in a department should include their startups as project work, which should not exceed of 10% (for session 2020-21 only) and participation in faculty’s project proposals accordingly.
4. **Short-Term goals (six month):** Ensure a minimum number of startups in a department.
5. **Long-Term goals (more than one year) :**
 - i. To provide IPR support (Trademarks, Licensing etc.)
 - ii. To provide investors for scaling the business to more territories.

g. Institute I & E strategy:

The I &E strategy will be driven by the pre-incubation/ incubation manager.

h. Product to market strategy for startups:

Incubation manager will provide product to market strategy for startups.

i. Development of entrepreneurship culture at various level:

1. **Regional, social and community level:** Incubation manager along with higher authorities/management will facilitate regional startups for development of the region.
2. **International level:** The institute innovation cell will be conducting programs like International Hackathons, International exchange programs and other channels.

2. Startups Enabling Institutional Infrastructure

- a. Pre-incubation / Incubation facilities will further be enhanced. Formation of Institution Innovation Cell, EDC and Student Clubs to aim at linking Innovation to Enterprises to Financial Success. Mr. Pawan Tiwari, Coordinator Incubation Cell will lead and head the central governing body for entire activities regarding Innovation*, Entrepreneurship* and Startups*
- b. The pre-incubation / incubation facility is accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.

- c. 'Incubation cum Technology Commercialization Unit' (ITCU) is in process of getting registered under Section-8 of Company Act 2013 with independent governance structure. This will allow more freedom to the incubator 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. Institute offering 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.

1. Nurturing Innovation and Startups:

ITM's Innovation and startup scheme establishes processes and mechanisms for easy creation and nurturing of Startups/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. While defining their processes, ITM Innovation and startup policy will ensure to achieve following:

1.1. Incubation support:

Offer access to pre-incubation & Incubation facility to startups by students, staff and faculty for a mutually acceptable time-frame.

Will allow licensing of IPR from institute to startup:

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 an easy term, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden.

Will allow setting up a start-up (including social startups) and working part-time for the startups while studying/working:

ITM will allow its students /staff to work on their innovative projects and setting up start-ups (including Social Startups) or work as intern / part-time in startups (incubated in any recognized HEIs/Incubators) while studying/working. Student Entrepreneurs may earn credits for working on innovative prototypes/Business Models. Student inventors may also be allowed to opt for start up in place of their mini project/ major project, seminars, summer training. The area in which a student wants to initiate a start up may be interdisciplinary or multidisciplinary. The salient features of the incubation process are given in the following.

- a) 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.

- b) Students who are under incubation, but are pursuing some entrepreneurial ventures while studying would be allowed to use their address in the institute to register their company with due permission from the institution.
- c) Student entrepreneurs would be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the institute.
- d) ITM will allow their students to take a semester/year break (or even more depending upon the decision of the review committee constituted by the institute) to work on their startups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Institute would set up a review committee for the review of a start-up by students, and based on the progress made, it may consider giving appropriate credits for academics.
- e) faculty and staff are allowed to take off for a semester/year (or even more depending upon the decision of the review committee constituted by the institute) as unpaid leave/ casual leave/ earned leave for working on startups and come back. ITM allows the use of its resources to faculty/students/staff wishing to establish a start up as a full time effort. The seniority and other academic benefits during such a period may be preserved for such staff or faculty.
- f) ITM will provide a part-time/full time MS/ MBA/ PGDM (Innovation, entrepreneurship and venture development) program where one can get a degree while incubating and nurturing a startup company. AICTE has already issued guidelines for a similar program.
- g) 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:
 - Short-term/ six-month/ one-year part-time entrepreneurship training.
 - Mentorship support on a regular basis.
 - Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fundraising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand development, human resource management as well as law and regulations impacting a business.
 - 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.
 - License institute IPR (discussed in another section).

- e. In return for the services and facilities, the institute may take 2% to 9.5% equity/ stake in the startup/company, based on brand used, faculty contribution, the support provided, and use of the institute's IPR (a limit of 9.5% is suggested so that institute has no legal liability arising out of the startup. The institute should normally take a much lower equity share unless its full-time faculty/ staff have substantial shares). Other factors for consideration should be space, infrastructure, mentorship support, seed funds, support for accounts, legal, patents, etc.
- h) For staff and faculty, the institute can take no more than 20% of shares that staff/faculty takes while drawing a full salary from the institution; however, this share will be within the 9.5% cap of company shares, listed above.
- i) 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 an 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.
- j) In case of compulsory equity model, Startup may be given a cooling period of 3 months to use incubation services on rental basis to make a final decision based on satisfaction of services offered by the institute/incubator. In that case, during the cooling period, the institute cannot force startups to issue equity on the first day of granting incubation support.
- k) The institute would also provide services based on a 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 would extend this startup facility to alumni of the institute as well as outsiders.
- m) Participation in entrepreneurship 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 may 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 the minimum required teaching and guidance) and then respective faculty will be evaluated accordingly for their performance and promotion.
- o) Institute will work to update/change/revise performance evaluation policies for faculty and staff as stated above.
- p) Institute would ensure that at no stage any liability accrue to it because of any activity of any startup.

4. Product Ownership Rights for Technologies Developed at Institute

- a. When institute facilities or funds are used substantially and 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 organization, 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. 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:
 - i. Two faculty members (having developed sufficient IPR and translated to commercialization),
 - ii. Two of the institute's alumni or industry experts (having experience in technology commercialization) and
 - iii. 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. Role of IPR cell or incubation center: 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.

- i. 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.
- ii. If inventors are using their own funds or non-institute funds, then they alone should have a say in patenting.
- e. Institute's decision-making body: 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. The institute should promote interdisciplinary research and publication on startup and entrepreneurship.

5. Organizational Capacity, Human Resources and Incentives

- a. Institute should recruit staff that have a strong innovation and entrepreneurial/ industrial experience, behavior 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 upskilling. Upskilling of faculty in I&E periodically through FDP/TTP
- b. Faculty and departments of the institute 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. Cross-departmental teaching and research to promote interdisciplinary capabilities faculties and staff.
- 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. We will engage 10%-15% of staff on every semester break for the same.
- 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, associateships, etc.
- iii. A performance matrix should be developed and used for evaluation of annual performance.

6. Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute

6.1 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 institution level.

6.1.1 Institute has a separate innovation center (workplace / workshop) that has adequate resources and facilities for innovation creations in student's own-stream, cross-stream and multi-stream domains.

Existing Labs of dept. may be converted to innovation center.

6.1.2 Innovation center have components bank / software library / hardware bank / consumables shop for daily use consumables. Students may use these facilities for practicing innovative creativities.

6.1.3 Students should actively associate with this innovation center and weekly progress report will be submitted on regular basis.

6.1.4 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. This will done by interactive seminars / video seminars.

6.1.5 Students/ staff should be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers.

- i. Entrepreneurs should innovate with focus on the market niche *.
- ii. This will be implemented through academic curriculum, co-curriculum and extra curriculum.

** A niche market is the subset of the market on which a specific product is focused. The market niche defines the product features aimed at satisfying specific market needs, as well as the price range, production quality and the demographics that it is intended to target. It is also a small market segment.*

6.1.6 Students should be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to train in cognitive skills (e.g. design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address young minds by sharing their experiences.

Initiatives to be taken like:

- i. Competitions for innovation/ innovative ideas ,
 - ii. Hackathons,
 - iii. Workshops,
 - iv. Bootcamps,
 - v. Seminars,
 - vi. Conferences,
 - vii. Exhibitions,
 - viii. Mentoring by academic and industry personnel,
 - ix. Throwing real life challenges,
 - x. Routinely organized awards and recognition.
- 6.1.7 To prepare the students for creating the start up through the education, integration of education activities with enterprise - related activities will be done. Institute is developing multiple facilities for part time earning of students.
- 6.2** The institute should link their startups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase.
 1. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding challenges, which may be faced by them while going through the innovation funnel and will increase the probability of success.
 2. Bridging Potential Students in pre-startup phase to their desired companies
- 6.3** The institute should establish Institution's Innovation Council (IIC) as per the guidelines of MHRD's Innovation Cell and allocate appropriate budget for its activities.
 - 6.3.1 Institution's Innovation Council (IIC) constitutes -
 - i. Headed by Director
 - ii. Dean Academics, Dean Research
 - iii. Dean, student welfare
 - iv. All HODs
 - v. Some members from industries and Alumni.
 - 6.3.2 **IIC** will guide institute in conducting various activities related to innovation, startup and entrepreneurship development.
 - 6.3.3 **IIC** will do collective and concentrated efforts to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.
- 6.4** For strengthening the innovation funnel of the institute, access to financing must be open for the potential entrepreneurs.
 - 6.4.1 Networking events will be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.

- 6.4.2 Provide business incubation facilities: premises at subsidized cost. Laboratories, Research facilities, IT services, Training, Mentoring, etc. will be accessible to the all the new startups.
- 6.4.3 A culture needed to promote understanding 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 finding him/her.
- 6.5. Institute must develop a **Ready Reckoner of Innovation Tool Kit**, which is available on the home page on institute's website (www.itmgoi.in) to answer the doubts and queries of the innovators and enlisting the facilities available at the institute.

7. Norms for Faculty Startups

7.1 For better coordination of the entrepreneurial activities, Institute is creating norms for faculty to do startups. Only those technologies will be taken for faculty startups, which originate from within the same institute.

7.1.1 Role of faculty:

- i. Owner
- ii. Direct Promoter
- iii. Mentor
- iv. Consultant
- v. On-board*member of the startup

(* The Board is subject to fiduciary duties, which, in a general sense, obligate them to act in the best interest of the company. However, the typical startup board comprises of the founder(s), a VC (as the lead investor of a funding round), and independent board members).

7.1.2 Institutes 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.

Policy to find out 'conflict of interests'

Examples-

- i. Starting a company that provides services similar to your full-time employer
- ii. Hiring an unqualified relative to provide services your company needs.
- iii. Nepotism
- iv. Self-dealing
- v. Excess compensation

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

These are the recommendations for possible partnership of faculty's startups:-

- i. Individual
- ii. Faculty & Faculty (Internal)
- iii. Faculty & Students
- iv. Faculty & Faculty (External)
- v. Faculty & Alumni

- 7.2 On-going research at the institute and the work conducted at the startup/company will be considered as two different works and cannot relate to each other.
- 7.3 In case of selection of a faculty startup 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) maybe permitted to the faculty.
- 7.4 Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa.
- 7.5 Human subject related research in startup should get clearance from ethics committee of the institution.
- 7.6 Participation in startup related activities will be considered as a legitimate activity of faculty members in addition to teaching, conducting research, guiding researchers, providing industrial consultancy and completing management duties. The same will be considered while evaluating the annual performance of faculty members.
- 7.7 Each faculty member is encouraged to mentor at least one startup.

8. Pedagogy and Learning Interventions for Entrepreneurship

Development:

Institute has initiated a program with diversified approach, experts from industry, mentors from different areas of business and enterprise will be the part of resource person team of this program. This program has adopted blended learning mode of pedagogy which consists of project and problem-based learning, online learning with MOOC platform and courses from various sources to implement NISP.

1. A dedicated innovation center is responsible to co-ordinate all student clubs, whereas individual departments are responsible for running technical clubs, project workshops/labs.
2. Entrepreneurship Cell is responsible for organizing competitions, bootcamps, workshops, awards, etc. A separate E-cell run and administered by students is totally involved in strategic planning and implementation of these activities.

3. As a part of awareness program about entrepreneurial ecosystem present in the institute, introductory sessions will be organized for all the students of all the programs at ITM. Required slots will be allocated in the time table of every department in co-ordination with E-Cell.
4. A dedicated Industry Institute Interaction Cell with well drafted policy is responsible for conducting research and survey on trends in technology, research, innovation, and market intelligence. Industrial consultancy, industrial visits and student internship related activities will be coordinated by this cell.
5. To promote student ideas, projects and innovations based around real life challenges, bootcamps, visits to rural and underprivileged areas in nearby region and hackathons will be organized by institute on regular basis. These activities and other E-cell calendar activities will be displayed in the institute's activity calendar.
6. For creating awareness among the students, the teaching methods will include case studies on business failure and real-life experience reports by startups.
7. E-cell will organize an event 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for motivating promoting and stabilizing the innovation and enterprises ecosystem within the institute.
8. Innovation champions should be nominated from within the students/ faculty/ staff for each department/ stream of study.

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

- a. Institute identifies potential partners, resource organizations, micro, small and medium- sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship
 1. To encourage co-creation, bi-directional flow/ exchange of knowledge and people ensured between institutes such as incubators, science parks, etc.
 2. Institute organizes networking events for better engagement of collaborators and opens up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, space for collaboration, lectures, etc. through E-cell of the institute to create successful ventures.
- b. The institute managing the relationships with external stakeholders including private industries through pre-incubation and incubation facilities of the institute. From which knowledge exchange through collaboration and partnership made as a part of institutional policy.

1. Through formal and informal mechanisms such as internships, teaching and research exchange programs, clubs, social gatherings, etc., faculty, staff and students of the institute given the opportunities to connect with their external environment.
2. E-cell of the institute which is single Point of Contact (SPOC), created in the institute for the students, faculty, collaborators, partners and other stakeholders to ensure access information.

10. Entrepreneurial Impact Assessment

1. Impact assessment of institute's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education should be performed regularly using well-defined evaluation parameters.
 - 1.1. **Impact Assessment of pre-incubation**
 - 1.1.1. Evaluation parameters & process
 - 1.1.2. Frequency = (in Every 3 months, March, June, September, December)
 - 1.2. **Impact Assessment of incubation**
 - 1.2.1. Evaluation parameters & process
 - 1.2.2. Frequency = (in Every 3 months, March, June, September, December)
 - 1.3. **Impact Assessment of entrepreneurship education**
 - 1.3.1. Evaluation parameters & process
 - 1.3.2. Frequency = (in Every 3 months, March, June, September, December)

(Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should be assessed.)

2. Number of startups 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. Frequency = (in Every 3 months, March, June, September, December)
 - 2.1. Number of startups created -
 - 2.2. Number of support system provided at the institutional level –
 - 2.3. Satisfaction level of participants –
 - 2.4. Satisfaction level of new business relationships created by the institutes-
3. Impact should also 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.

- 3.1. Satisfaction level of student entrepreneurs for support system provided by the institute –
- 3.2. Satisfaction level of faculty/staff entrepreneurs for support system provided by the institute –

Targeted outcomes-

- Pre-incubation,
 - Incubation,
 - IPR protection,
 - Industry linkages,
 - Exposure to entrepreneurial ecosystem, etc.
4. It is mandatory to have an impact assessment plan for every strategy and activity for developing and reviewing the same.
 5. For measuring the success following key measures are use –
 - 5.1. Sustainable social Impact in the market
 - 5.2. Financial Impact in the market
 - 5.3. Technological impact in the market