



Co-funded by the
Erasmus+ Programme
of the European Union



IMPLEMENTATION FRAMEWORK TALENT CO-CREATION LAB

UNIVERSITY OF RUHUNA, SRI LANKA

Integrating Talent Development into Innovation Ecosystems in Higher Education

586227-EPP-1-2017-1-BG-EPP

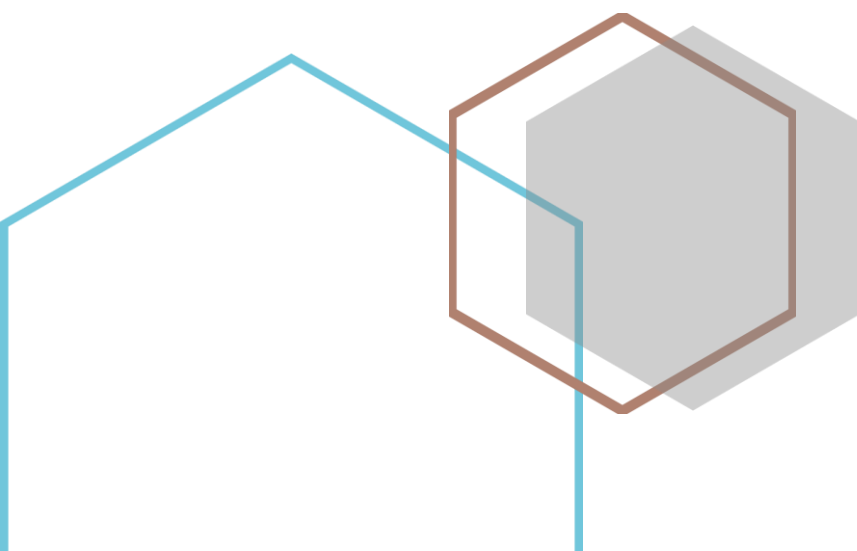




Table of Contents

Activities of the Lab	2
Position of the Lab within the university structure	2
Organization of the physical premises and working space for the Talent Co-Creation Lab	4
Arrangements for the management of the Lab	5
Arrangements for involvement of faculty and staff in the Lab	5
Arrangements for the coordination and administrative work in the Lab – staff, responsibilities, financing	5
Channels and means of communication with external stakeholders	6
Rules and regulations for selection and participation of students in the live innovation projects	6
Opportunities for collaborative work	6
Linking Lab activities to curricular activities and internships	7
Principles and approaches for assessment and evaluation of student and faculty involvement in Lab activities	8
Policy and procedures on Intellectual and Industrial Property	8
Policy on financing of the Lab activities	8
Policy and procedures on industry / business contribution or co-financing of the Lab projects or trainings	8
Policy and procedures on access to research/innovation results and use of products developed within the Lab	8
Rules for ensuring the safety of students and external stakeholders working at the Lab	8
Rules for ensuring the safety of students and external stakeholders when the lab activities take place outside the Lab	9
Internal development plan of the Talent Co-Creation Lab	9
Quality assurance plans for the Talent Co-Creation Lab	9

The framework outlines the design of the operations of the Talent Co-Creation Lab created at the University in the frame of the INNOTAL project. It clarifies the Lab's place within the University structure, its functioning, management and activities, as well as applicable rules and regulations.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

ACTIVITIES OF THE LAB

University of Ruhuna will set up three Talent Co-Creation Labs at three different departments. They will promote talent development by involving students in innovation and research activities in cooperation with external stakeholders (business, the community and the public sector), as well as other activities aimed at improving students' employability (including career orientation).

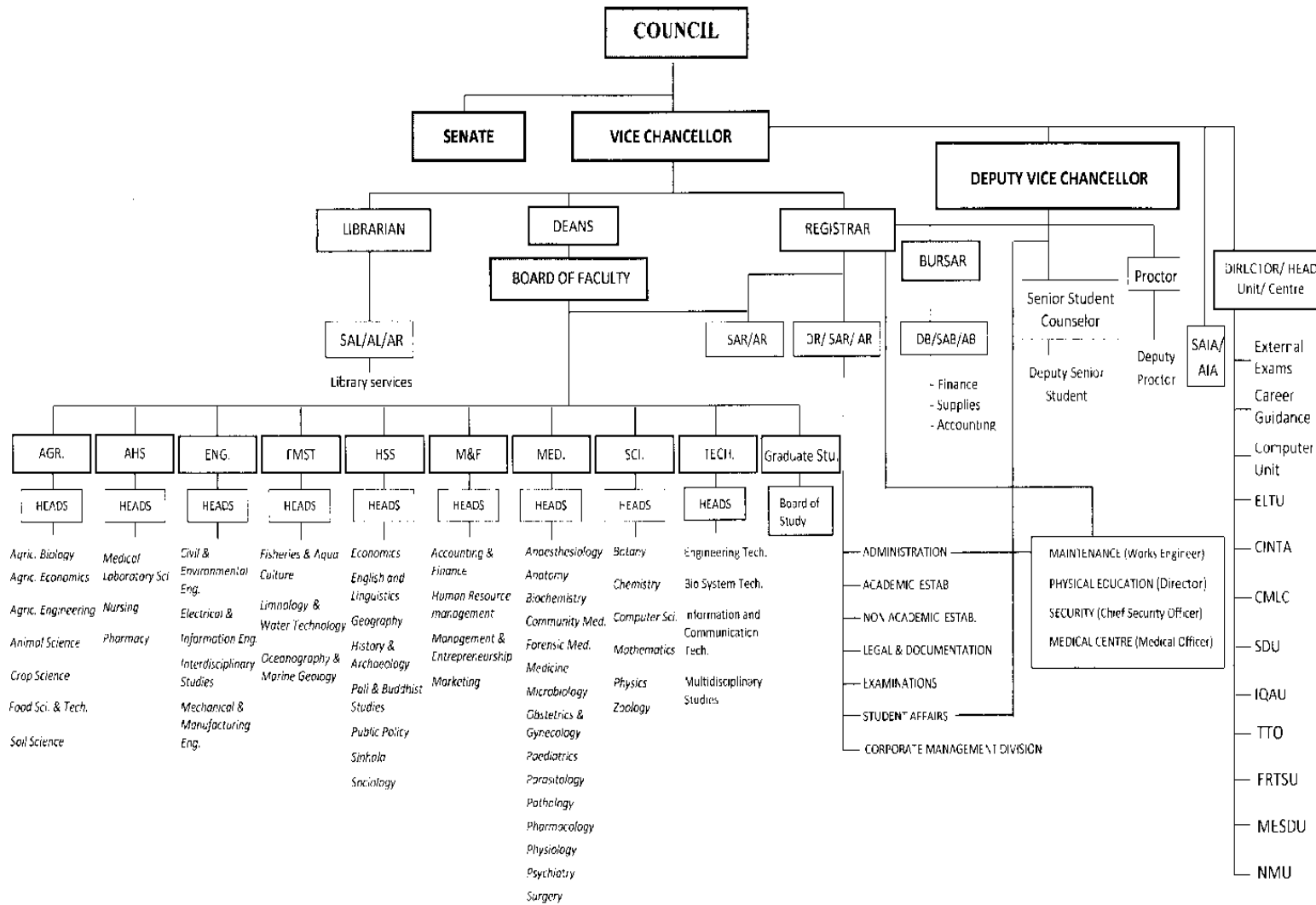
They will carry out the following tasks:

- Identify and engage key external stakeholders to support the professional growth of students
- Enhance opportunities and support schemes for innovation and research
- Pursue research on entrepreneurship in collaboration with business, industry and other external organizations
- Provide an opportunity to network among faculty members and professionals
- Promote the relationships between academics and relevant industries at both national and international level.
- Facilitate the faculty members to update the curricula of undergraduate programs to meet the current demands of industry and society.

POSITION OF THE LAB WITHIN THE UNIVERSITY STRUCTURE

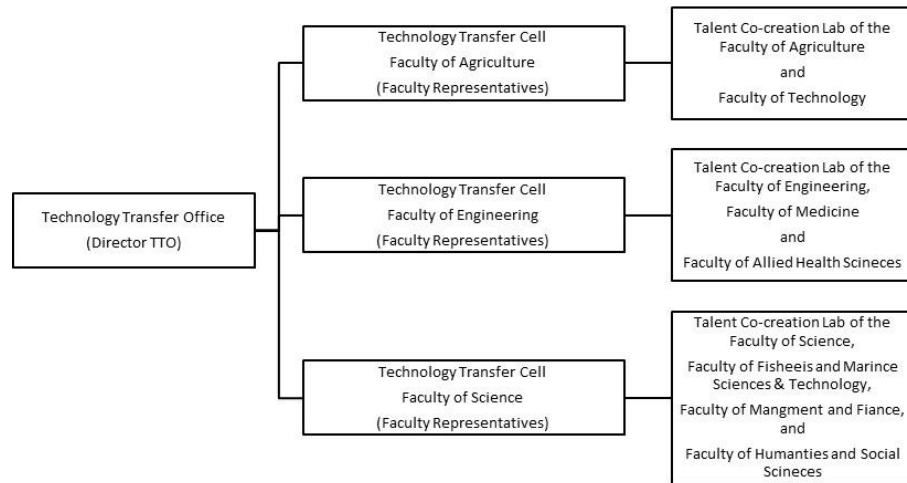
The University maintains an organizational structure as specified in the University Act No. 16 of 1978. It is presented in the diagram below. The position of the Technology Transfer Office (TTO) is given below. The TTO is the University body responsible for setting up the Co-Creation Labs.





POSITION OF THE LAB WITHIN THE UNIVERSITY STRUCTURE

The organizational structure of the Talent Co-Creation Labs is given below. The three Technology Transfer Cells (TTC) of the respective three Faculties are responsible for managing the Talent Co-Creation Labs. The Faculty representative of the respective Technology Transfer Cell is in charge of the Lab at Faculty level.



ORGANIZATION OF THE PHYSICAL PREMISES AND WORKING SPACE FOR THE TALENT CO-CREATION LAB

Talent Co-creation Laboratory of the Faculty of Engineering

The space allocated for the Talent Lab of the Faculty of Engineering is a space used for group work assigned to students. The students of the Faculty use this space for their assignments and discussions. At the moment this space is equipped with computers procured in the frame of the project, but the Faculty expects to develop it with other needed resources. Three laptop computers and one tablet computer were provided by the INNOTAL project to this lab.

Talent Co-creation Laboratory of the Faculty of Technology

The space allocated for the Talent Lab of the Faculty of Technology is specifically designed for co-creation activities of the Faculty. In the curriculum of the Faculty there are components that require students to submit new technological applications designed through group work. The Faculty has provided computer facilities and network facilities. Three laptop computers and one tablet computer were provided by the INNOTAL project.

Talent Co-creation Laboratory of the Faculty of Science

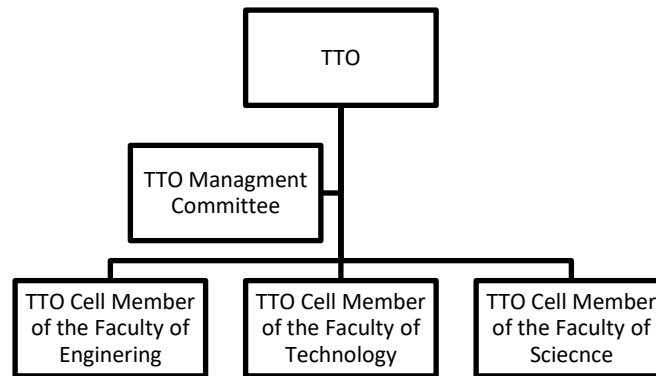
The Faculty of Science is in the main campus of the University where there are four other Faculties. This Talent Lab is thus open to all the other Faculties, namely Faculty of Fisheries and Marine Sciences, Faculty of Technology, Faculty of Management and Finance, Faculty of Humanities and Social Sciences, Faculty of Graduate Studies. This laboratory is affiliated to the Invention Innovation Centre established at the University,



ARRANGEMENTS FOR THE MANAGEMENT OF THE LAB

which is linked to the Invention Innovation Commission of Sri Lanka. The space is equipped with computers, multimedia projectors, digital screen, 3D printer, copier and desktop computers. A whiteboard, a multifunctional printer, three laptop computers and one tablet computer were provided by the INNOTAL project.

The Faculty representative of the respective TTC manages of Co-Creation Lab at the respective Faculty. Each Co-Creation Lab has a Technical Officer in charge of the operation.



ARRANGEMENTS FOR INVOLVEMENT OF FACULTY AND STAFF IN THE LAB

Student engagement is both a requirement for, and an outcome of, partnership and co-creation activities. The students are interested in active and participatory roles that allow them to interact and work collaboratively with academic staff. They are partners in co-creation and their feedback, opinions, intellectual capabilities and personalities, integrated alongside institutional resources, offer value to both students and the University. This collective environment is a motivation to both students and academics to work for a common goal in co-creation. Every year the University organizes an invention innovation exhibition and competition where they can submit their new creations.

ARRANGEMENTS FOR THE COORDINATION AND ADMINISTRATIVE WORK IN THE LAB – STAFF, RESPONSIBILITIES, FINANCING

The activities of Talent Labs are centrally operated under the TTO but at faculty level coordination is carried out by the TTO Cell due to the disperse locations. Therefore, each Talent Lab will be administered by two key personalities, namely Director/TTO and the Dean of each Faculty. In particular, the Dean of each Faculty will monitor the functions of the Lab and bear the key authority in assigning responsibilities to the staff members, working in association with the TTO Cell member who is the Faculty coordinator of the TTO. The Faculty TTO Cell member will monitor students’ activities in the Lab and will be assisted by a technical officer attached to the Lab.

The future operations of the Talent Lab will be financed by the TTO. The smooth functioning of the TTO is the responsibility of a Director and the operations are monitored and evaluated by an Advisory Board and a



CHANNELS AND MEANS OF COMMUNICATION WITH EXTERNAL STAKEHOLDERS

Management Board.

Channels of communication between the University and the external stakeholders are strong already. Each faculty is operating a database listing business, public sector, and non-profit organizations interested in conducting collaborative research activities or providing internships and employment opportunities. The University is committed to facilitating and empowering small-scale entrepreneurs. Faculty-level activities and operations conducted so far have been centralized and coordinated by the TTO. As communication tools, email and WhatsApp groups have been widely in use by the University.

RULES AND REGULATIONS FOR SELECTION AND PARTICIPATION OF STUDENTS IN THE LIVE INNOVATION PROJECTS

Currently, no restrictions have been imposed on students interested in participating in the Lab activities. Any student who comes up with an innovative project is welcome. Moreover, the University is enthusiastic towards students' innovative projects. If there is more demand from students, time slots will be applied following a decision by each Faculty TTO Cell member and the technical officer as directed by the TTO Director and the Dean of the respective Faculty.

Student groups are encouraged to work as teams covering different disciplines. For instance, one group may consist of students from Science, Engineering and Management disciplines. Multi-disciplinary teams of students will be preferred and encouraged.

OPPORTUNITIES FOR COLLABORATIVE WORK

Many private-sector organizations are enthusiastic about collaborative work with the faculty staff and students, especially with respect to research and innovative projects. Such external organizations have experience and resources in terms of information, money, and other physical assets. Combining those resources with the expertise, knowledge and experience of the staff and the innovative skills of the students will guarantee the success of the collaborative projects.

The Science, Technology, Engineering and Mathematics (STEM) streams will reap many benefits in this regard. Meanwhile, many external organizations, including small-scale entrepreneurs, need support for product testing to guarantee the quality of their products. Moreover, they need to do experiments and tests to enhance the level of quality of their products. The Talent Lab can be effectively engaged in quality improvement of such products.

More interaction between external stakeholders and students is encouraged where students can benefit from the experience of the external stakeholders. The Talent Lab can be used as an effective platform for sharing knowledge and experience among partners. Specially, final year students' projects can be conducted via the Talent Lab as collaborative projects with the participation and cooperation of external stakeholders.

The usage of the Lab and its equipment will be properly managed by the



LINKING LAB
ACTIVITIES TO
CURRICULAR
ACTIVITIES AND
INTERNSHIPS

faculty and the TTO Cell member where priority will be given to innovative student projects. External stakeholders do not have unlimited access but can use the Talent Lab based on the relevance, importance and the outcomes of the project. External stakeholders' participation in projects is supervised by Lab staff.

The INNOTAL online innovation management platform will be effectively used as a tool for communication with external stakeholders. Social media is another popular tool that will be used simultaneously with the online innovation management platform.

Currently, external stakeholders effectively contribute for degree programmes, especially to curricular design. The University revises and updates the curricula as per the industry needs. The views and observations of external stakeholders are collected by organizing industry forums. It is expected that this interaction will be strengthened with the ongoing activities of the Talent Labs.

Both staff and students can effectively utilize the Talent Labs to practice their innovative research projects. The Talent Labs will be utilized as a platform for practicing innovative ideas and allowing students to achieve feasible profitable outcomes through collaborative projects and activities. Different projects and activities will be conducted by or for student groups, possibly in collaboration with external stakeholders and always under the guidance of faculty members. It is yet to be decided how Talent Lab activities and projects will be linked to curricular activities and if they will provide extra credits. At present, it has been decided that staff members will be encouraged to organize entrepreneurship training sessions to enhance curricular studies.

The new structure will help inculcate an internship and practical training culture within the university. Internship training at present is practiced at the relevant sites of external organizations. Therefore, if students make a request to practice some parts of projects or activities of their internship training at the Talent Lab, this will be considered by all relevant parties, such as academic supervisor and site supervisor.

The University organizes invention and innovation exhibitions and takes part in many national and international competitions. The outcome of the project activities of the Talent Labs will be presented at these forums.

PRINCIPLES AND
APPROACHES FOR
ASSESSMENT AND
EVALUATION OF
STUDENT AND
FACULTY
INVOLVEMENT IN LAB
ACTIVITIES

Students should maintain a lab record book to document the records of use and the research data. The Faculty member and the TTO Cell member of the Faculty will be responsible for certifying the progress of the work. The assessment criteria will be different depending on the subject discipline. The lab record book can be used to assess the students and the involvement of faculty members.

The projects conducted by student groups can be independent or they can



POLICY AND PROCEDURES ON INTELLECTUAL AND INDUSTRIAL PROPERTY

be part of their research study or outcome of their internship training. If they engage in work related to research study or internship training, it is causally related to the curriculum and the assessment will be considered for their certificate of award.

Students can be asked to have periodical presentations to review the progress of their work and other students involved in the Lab can give feedback to their colleagues.

The activities of Talent Labs are centrally operated under the TTO. The function of TTO in the university is well established. All innovation projects are monitored by the TTO. The procedures related to protection of intellectual and industrial property are already established at the University.

POLICY ON FINANCING OF THE LAB ACTIVITIES

The TTO of the University is a separate entity that can earn funds through their own activities. This allows students to apply for new projects or concepts from the TTO. Furthermore, research teams can apply for funding from the Sri Lanka Inventors Commission. In the case of collaborative projects with external stakeholders, the industry can fund the activities of the Lab.

POLICY AND PROCEDURES ON INDUSTRY / BUSINESS CONTRIBUTION OR CO-FINANCING OF THE LAB PROJECTS OR TRAININGS

All the rules and procedures relevant to industry contribution are established by the TTO and any collaborative project will follow these guidelines.

POLICY AND PROCEDURES ON ACCESS TO RESEARCH/INNOVATION RESULTS AND USE OF PRODUCTS DEVELOPED WITHIN THE LAB

The projects and the outcomes will be monitored by the TTO and will become property of the University. With the permission of the University, the research/innovation results and the products will be publicised. All the patent applications should go through the TTO.

RULES FOR ENSURING THE SAFETY OF STUDENTS AND EXTERNAL STAKEHOLDERS WORKING AT THE LAB

As the physical space in the laboratory is limited, there will be some restrictions on the number of persons present at the Lab at any moment (the seating is limited to about 10 at present). The activities in the Talent Labs should not require more than access of computers and related work. Wearing any special protective gear will therefore not be required. Research work requiring special equipment will be carried out in different University Labs, even if the research in question is part of Talent Co-Creation Lab projects.



**RULES FOR ENSURING
THE SAFETY OF
STUDENTS AND
EXTERNAL
STAKEHOLDERS WHEN
THE LAB ACTIVITIES
TAKE PLACE OUTSIDE
THE LAB**

**INTERNAL
DEVELOPMENT PLAN
OF THE TALENT CO-
CREATION LAB**

**QUALITY ASSURANCE
PLANS FOR THE
TALENT CO-CREATION
LAB**

The University has established protocols for safety and rules in the situations when students are taken to external premises for field visits, industry visits, etc. Those will be followed strictly for all Co-Creation Lab activities.

The Talent Co-Creation Lab is already a part of the big picture of invention and innovation activities and plans at the University. Therefore, expansions will happen parallel to the expansion of other related activities under TTO. The concept has already been introduced to a few other faculties and we expect this process to continue. Discussions for creating an e-platform for the invention and innovation activities of the University are already initiated.

The following preliminary Quality Assurance plans have been made:



Type of assessment	Who will be in charge?	How will assessment activities be organized?	Who will collect the results from the monitoring activities?	Who will analyse the result from the monitoring activities?	What indicators will be used? What elements of the work of the Lab will be monitored?	How will results be reflected in planning?
Monitoring: ongoing, focused on implementation	The Faculty Business Link Cell Coordinator will be in charge of the Lab	The record of attendance for usage of the Lab will be kept by the person-in-charge	The person-in-charge	The person-in-charge	Number of students trained Number of external stakeholder involved Number of projects implemented Number of students included in innovation projects Number of faculty members involved	The results of monitoring will be sent to the TTO for further improvements of the Lab activities
Evaluation: Periodic (once a semester)	The person-in-charge	During the annual Invention Competition, data will be collected through a questionnaire	The person-in-charge	The person-in-charge	Student skills and competencies developed Innovations developed Innovations in teaching introduced	The results will be included in the annual report and will also be sent to TTO for further analysis and strategic planning