

EQUAMBI

Enhancing Quality Assurance Management and
Benchmarking Strategies in Indian Universities

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Template for the implementation of the Toolkit among the Indian Universities of the Consortium

Version: February, 2020

The Template

Introduction

The following template for the implementation of the Toolkit in the pilot projects of the EQuAM-BI project by the Indian universities of the Consortium is based on the discussions held in the meeting at Barcelona University on 7th and 8th January 2020.

The purpose of designing a template is to allow institutions of higher education to gather the information according to an agreed pattern in order to analyze the information based on comparable items, regardless the diversity of the universities responding filling-in the template.

After the presentation of the experiences from the different universities made in the meeting in Bengaluru on 7th and 8th November 2019 and Barcelona on 7th and 8th January 2020, a synthesis of the headlines that the template should contained has been achieved. The template is based on the case studies of the following higher education institutions: Symbiosis International (Deemed University), Javadpur University, the Indian Institute of Technology at Chennai, the Asian Institute of Design at Bangaluru, Shivaji University at Kolhapur, University of Mysore and University of Mangalore.

The template

Each item of the template should be considered as a guideline and an orientation respectful with the institutional environment, and not as a statement to be read and understood literally. Furthermore, an item can be left blank if the university considers it does not apply to its performance.

The items of the template are as follows:

0. Higher Education Institution mission, vision and values. From the above points, specify strategic drivers concerning quality management in the context of the specific HEI

1. Proposed structure of the quality management and benchmarking department/unit:
links with the governing bodies of the university
2. Quality policy and objectives
3. How the university ensures the quality of its programmes
4. Development of teaching and other actions aimed at students
5. How the university ensures and enhances the quality of its academic staff
6. Management and improvement of material resources and services
7. Research development
8. Community engagement and internationalization strategy
9. Analysis and application of the outcomes to/by the decision-making process of the
university
10. Transparency, equity and ethics

Annex . The template (enlarge the boxes as needed)

EQAuM-BI Erasmus+ Project	
Template for the implementation of the Toolkit	
Nr	Item from the quality assurance policy and management of the university
0	<p>- Mission:</p> <ol style="list-style-type: none"> 1. To create and sustain a community of learning in which students acquire knowledge and learn to apply it professionally with due consideration for ethical, ecological, and economic issues. 2. To pursue research and disseminate research findings 3. To provide knowledge-based technological services to satisfy the needs of society and the industry 4. To help in building national capabilities in science, technology, humanities, management, education and research <p>- Vision: To be an academic institution in dynamic equilibrium with its social ecological and economic environment striving continuously for excellence in education, research and technological service to the nation.</p> <p>- Values: In pursuit of its mission IITM will</p> <ul style="list-style-type: none"> • develop human resources to serve the nation; • recognize teaching as a unifying activity;

	<ul style="list-style-type: none"> • nurture integrity, creativity and academic freedom; • retain a willingness to experiment with new paradigms <p>Considering the above points, specify the strategic drivers concerning quality management in the context of the specific HEI:</p> <p>To be in top 50 in all disciplines through excellence in research and education and become India’s leading institution for developing technological solutions to meet the Country’s challenge.</p>
	<p><i>Comments, operationalization, and evidences:</i></p>
<p>1</p>	<p>Proposed structure of the quality management and benchmarking department/unit: links with the governing bodies of the university:</p> <p>The establishment of IQAC pivotal to ensure that high standards are maintained in the various processes and procedures followed by the Institute. Currently, Office of Quality Management focusses on all the quality aspects pertaining to the support services of the Institute. Professor-in-charge (Quality Management) is in charge of independent evaluation of processes and activities; internal audit; and quality assurance of support services and academic programmes and assists the Director.</p>

	<p>The first step towards ensuring Quality Assurance will be the establishment of an IQAC, headed by one of the top Institute functionaries – Registrar or Dean. The IQAC may have full-time employees. The strategic plan of the Institute needs to be data based and bench-marked driven. The Institute is committed to benchmark its activities with appropriate national and international HE Institutions and identify the areas of improvement. This is being done by participating in various national and international HE Surveys and Rankings like National Institutional Rankings Framework, India, QS University Rankings and THE University Rankings.</p>
	<p><u>Comments, operationalization, and evidences:</u></p> <p>For instance a comparative study on QS Subject Rankings (Engineering & Technology) – 2017, helped us identify our weak and strong areas in comparison to similar international universities and work on them accordingly.</p>



INSTITUTION	QS E & T RANK 2017	ACADEMIC REPUTA- TION	CITATIONS PER PA- PER	EMPLOYER REPUTA- TION	H-INDEX OF CITATIONS
IIT Madras	110	84.6	80.0	59.6	73.9
Birmingham	100	74.2	88.1	70.2	80.2
Universiti Te- knologi Malaysia	90	82.8	73.6	67.9	82.3
Northwestern	80	78.3	98.5	62.7	86.1
IIT Delhi	70	86.2	82.5	66.9	79
Queensland	60	80.1	90.8	73.2	81.2
Chinese Univ of Hong Kong	50	80.0	88.3	79.7	80.2

2 Quality policy and objectives:

To pursue global standards of excellence in all our endeavors namely teaching, research, and consultancy and continuing education and to remain accountable in our core and support functions, through processes of self-evaluation and continuous improvement.



	The primary objective of the Indian Institutes of Technology is to provide scientists and technologists of the highest caliber who would engage in research, design and development to help building the nation towards self-reliance in her technological needs.
	<i>Comments, operationalization, and evidences:</i>
3	<p>How the university ensures the quality of its programmes:</p> <p>The Institute works in the close collaboration with the Industry for the design and delivery of its academic programmes. IIT Madras offers unmatched flexibility in its undergraduate and graduate academic programs (elective courses up to 40% of curriculum credits).</p>
	<p><i>Comments, operationalization, and evidences:</i></p> <ul style="list-style-type: none"> • The Institute is steadily increasing the number of inter-disciplinary dual-degree programmes in emerging technology areas and those relevant to development of the Country and also the online certification courses. • IITM is engaging industry experts as “Professors of Practice” to teach and share their industry experience with the students. • User-Oriented M.Tech. programmes catering to the need of a particular sector of industry not only enhance the skill of the students but also make the students industry-ready.

	<ul style="list-style-type: none"> • IIT Madras has the highest number of joint Ph.D.'s in India, with the best Universities around the world, which are very active in terms of faculty and student involvement. The Institute is working towards increasing the number of joint academic programmes with other international institutions. • Co-teaching of online courses is another interesting initiative, an example being one on “Construction Technology Management”, co-taught by faculty across 4 geographies.
4	<p>Development of teaching and other actions aimed at students:</p> <p>The Institute is actively involved in Study, research, development and implementation of innovative methodologies/technologies in the teaching learning process. IITM has an active Teaching Learning Centre which is not only involved in imparting innovative pedagogical tools to the in-house faculty but also to those from other Institutions.</p> <p>Quality enhancement for higher technical education is endeavoured through a continuous and seamless interaction among teachers, students and experts.</p>
	<p><u>Comments, operationalization, and evidences:</u></p> <p>In IIT Madras, approximately 35% of faculty have been trained in essential pedagogy techniques for teaching new generation learners. A survey conducted by the centre indicates that 20-25% of faculty at IIT Madras routinely use pedagogy techniques in class room teaching.</p>

5	<p>How the university ensures and enhances the quality of its academic staff:</p> <p>The Institute follows a strict selection criteria and a rigorous process to select as well as promote the academic staff. For example, the minimum qualification to apply for a faculty position at IITM is PhD. The Institute currently has around 50% of its faculty as foreign qualified, which we intend to increase by 70% in future, besides having 10% international faculty on full-time basis.</p>
	<p><u>Comments, operationalization, and evidences:</u></p> <p>Some measures planned to enhance the quality of faculty:</p> <ul style="list-style-type: none"> • Recruitment of Foreign Faculty via Visiting International Faculty (VIF) programme. • Enhance international relations as a mechanism for recruiting foreign faculty • Active participation in GIAN and VAJRA (IITM has hosted 150+ GIAN courses) • Enhance participation in international programs such as Fullbright (US), Humboldt (Germany) and Endeavour (Australia) • Encourage international collaborations (enabling faculty to spend time at leading globally ranked institutions) • Increase the number of internal awards to recognize excellence in teaching and research among the teaching community.
6	<p>Strategic drivers of the university concerning quality management:</p>

	<ul style="list-style-type: none"> • As per IIT Council guidelines Peer Review of entire institute by Expert Committee is done every 5 years. IIT Madras plans to continue the process of Peer Review. It moreover, intends to constitute Individual Expert committees with global experts, to conduct Institute-level and departmental-level reviews. • Since 1999, IIT Madras has been certified under ISO 9001:2015, for twelve administrative and support services for academic functions. The services include: Academic Section, Central Library, Central Workshop, Computer Centre, Centre for Industrial Consultancy & Sponsored Research, Administration, Stores and Purchase, Security, Engineering Unit, Central Electronics Centre, Finance and Accounts, Institute Hospital
	<p><u>Comments, operationalization, and evidences:</u></p> <p>The ISO Certification has given certain Strategic Direction to the Institute:</p> <ul style="list-style-type: none"> • To be known as the best educational and research institute in the country and excel globally in all the areas IIT Madras is engaged in • To continuously recruit outstanding faculty and offer several new courses every year including industry oriented online courses • To establish two or three research centres of excellence each year, built around focus themes for which IIT Madras should be known globally for the National and Societal impact as well as the new knowledge that they create • To commercialize research innovations • To make significant contributions to the technology needs of the nation

	<ul style="list-style-type: none"> To develop IIT Madras campus into a model University campus in terms of sustainability, usage of energy and water and recycling of materials To provide a framework for the staff members wherein five or six advancement steps are possible during a career.
7	<p>Research development:</p> <p>At IIT Madras, research is a preoccupation of around 600 faculty members, 3000+ MS and PhD research scholars, more than 800 project staff, and a good number of undergraduates as well. The Institution’s mix of fundamental, translational and transformational research is unique, and is the “secret sauce” in IIT Madras’ tremendous growth as a research institution serving the nation’s needs. It spans everything from basic curiosity-driven investigations to research directed at finding disruptive solutions to the daunting challenges facing India in water, energy, healthcare, transportation, housing and education.</p>
	<p><i>Comments, operationalization, and evidences:</i></p> <p>The Institute has established certain Research Centres of Excellence (CoEs) to encourage inter-disciplinary research that can lead to path breaking innovations. IIT Madras intends to identify and nurture best of these Centres, besides establishing some new ones that can be catalysts for international collaborations and cutting-edge research activities. These Centres will be highly outcome-focused, and will have intimate linkages with IITM Research Park and IITM Incubation Cell for commercialization of ideas, and with the IP Office for patent filings and technology transfer/ licensing.</p>
8	<p>Community engagement and internationalization strategy:</p> <p>Over the past six decades, IIT Madras has been providing technical expertise to both Tamil Nadu State Government and Central Government agencies. These outreach activities have taken the form of structural certification of vital infrastructure, environmental</p>

	<p>assessment, treatment of water and soil contamination, studying healthcare and education programmes, providing expertise in new renewable energy technologies, recommending measures to ensure the safety of heritage structures, port and coastal engineering and road and transportation engineering, to give some examples. The Institute will enhance its role in this regard in the coming years and actively contribute its expertise to help improve governance and speed up development.</p> <p>When it comes to internationalization, IITM has collaborations with top Universities around the world (> 250 MoUs and > 150 Student Exchange Agreements). The Institute also offers around 18 Joint Doctoral Degree Programmes with leading international institutions, which it aims to steadily increase. However, when it comes to international faculty and full-time students on Campus, the numbers are negligible. The institute endeavours to have atleast 10% of its faculty from abroad, against the current 2%.</p>
	<p><u>Comments, operationalization, and evidences:</u></p> <p>There are number of steps planned towards internationalization of Institute and increasing the number of international students and faculty on Campus:</p> <ul style="list-style-type: none"> • Increase % of participation by faculty in internationalization initiatives • Arrange collaborative Workshops with foreign faculty • Strengthen the global competitiveness of IITM CoEs by collaborating with top international researchers • Recruitment of foreign faculty is planned via Visiting International Faculty (VIF) programme.

	<ul style="list-style-type: none"> • Targeting students from ASEAN, SAARC and African Countries to promote our MS and PhD programmes and also QIP programmes for faculty members. • In an endeavour to attract Research Scholars from across the world, IIT Madras has recently launched 'Global Research Internship in Engineering Science Humanities and Management' (GRIESHMA) programme. Through this programme, Senior Undergraduate international students have an opportunity to undertake a 6-8 weeks internship and get exposed to the IIT Madras Research Ecosystem. The programme offers lot of flexibility and is fully funded by the Institute.
9	Analysis and application of the outcomes to the decision-making process of the university
	<i>Comments, operationalization, and evidences:</i>
10	10. Transparency, equity and ethics The Institute is committed to maintain transparency and fairness in all its functions whether it is students' admission, evaluation, appraisal of faculty members and so on.
	<i>Comments, operationalization, and evidences:</i>

Conclusion

The template should be filled-in as under the coordination of a person responsible for quality management but collectively with the contribution of representatives of the various departments, and units involved in the processes mentioned in the template.

The final version should be checked and approved by the person in charge of contributing to the EQuAM-BI Project on behalf of the institution of higher education.

This version should be filled-in by each higher education institution partner of the EQuAM-BI Project and be sent before 24th February at the latest to the following e-mail address: rlavori@aneca.es

Madrid, February 3rd, 2020