

Revised Accreditation Framework (RAF)



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BENCHMARK DRIVEN, DATA BASED ASSESSMENT:
A CASE STUDY OF INNOVATIONS IN ACCREDITATION FRAMEWORK BY NAAC, INDIA



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Introduction

- ▶ HE across the globe has witnessed various transformations in the recent years.
- ▶ Emergence of new technology and innovations have become a key trend in the global HE such as Massive Open Online Courses (MOOCs), Open educational resources (OERs).
- ▶ Innovations brings the world closer beyond boundaries while adding new and complex challenges for regulatory bodies and accreditation agencies.
- ▶ The change significantly expands the role of technology integration in the accreditation process as well as minimizing through innovative quality assessment tools.
- ▶ This changing context has emphasised the need for framework that would also promote optimal resource utility, improved services, increased flexibility in operations blended with newer technology in present accreditation process.

Quality Assurance in Indian Higher Education System

Context: two decades of pioneering experience

- NAAC's Process based on global good practices and norms.
- Total 12,579 accreditation visits (includes multiple cycles) covering 581 universities and 11,998 colleges.
- Over 1600 Higher Education Institutions (HEIs) accredited during the year 2016-2017.
- Facilitating quality and excellence by establishing Internal Quality Assurance Cells (IQACs) and good practices - 7000 IQACs, series of good practices and quality initiatives.
- Growing importance: Mandatory regime, policy and funding linkages
- Recently, NAAC has revised its methodology from Peer based assessment to ICT-data driven method of assessment which is considered as a paradigm shift in Indian HE since July 2017.
- This new methodology is featured by **ICT enabled, scalable and robust ensuring objectivity and transparency.**

Quality Assurance in Indian Higher Education System

- ▶ Indian HE is known for its massiveness, stands next to China and United States a third largest HE system in the world with number of HEIs.
- ▶ As per AISHE report 2017-18, Expansion – There are 903 Universities, 39050 Colleges and 10011 Stand Alone Institutions in India.
- ▶ Enrolment in higher education reached 36.6 million during 2017-18.
- ▶ Remarkable growth and emergence of new institutions have created new challenges in quality framework for Indian higher education such as diversity, unique grading system, involvement of stakeholders, limited number of assessors, need for data verification etc.,

Challenges of Indian Higher Education System

- ▶ **Massive HE System-** stands next to China and United States a third largest HE system in the world with number of HEIs
- ▶ **Diversity-** diversity in terms of higher education variety of institutes, course offerings, academic diversity etc.,
- ▶ **Unique grading system-** NAAC grading system - unique and grades the HEIs on 7 point scale with letter grades.
- ▶ **Involvement of stakeholders** - lacks the involvement of stakeholders such as industry experts, alumni, students in designing the curriculum, quality assurance compared to other developed countries.
- ▶ **Limited number of Assessors-** 1200 members till Oct 2018.
- ▶ **Need for data verification-** Huge data submitted online by HEIs to NAAC needs to be validated and verified for better quality purpose which requires specialised persons who have the knowledge of data verification and validation using online platform.

Key Issues of Higher Education

- ▶ Need for revising the methodology
- ▶ Linking of NAAC accreditation to various funding
 1. NAAC graders with score of 3.51 or above enjoys autonomy of operations.
 2. Graded autonomy to promote and institutionalize excellence in higher (MHRD press released 23-July-2018)
 3. HEIs may offer ODL courses with a valid accreditation from NAAC with a minimum cumulative grade of 3.26



Total Institutions accredited by NAAC (As on 4th March 2019)

	1 st Cycle	2 nd Cycle	3 rd Cycle	4 th Cycle	Total
Universities	348	163	68	2	581
Colleges	7757	3392	833	16	11998
Total	8105	3555	901	18	12579

Source: NAAC Statistics Unit, 2019

Development of RAF

The methodology designed strongly emphasises on evidence based assessments with accuracy and authenticity

- ▶ Revised Accreditation Framework (July 2017) developed in consultation with statutory bodies, experts and Stakeholders.
- ▶ Existing fifty (50) Core and Desirable indicators, about Two Hundred (200) Assessment Indicators and questions in manual synthesized.
- ▶ Elaborative process of Self-Study Report (SSR) covers over 300 questions along with departmental inputs were reduced to 140 metrics.
- ▶ Referencing with National Institutional Ranking Framework (NIRF) and International Practices.
- ▶ Learning from best practices in Europe and other regions for features like Student Satisfaction Survey, alumni engagement etc.
- ▶ Consulted about 200 experts through national meet, workshops and Core Working Group and Sectoral Working Groups meetings.
- ▶ Conducted a pilot study across the country to test the framework and benchmarks (100 HEIs).
- ▶ Quality Indicator Framework (QIF) hosted on website and feedback sought.
- ▶ Provision of 5% optional/non applicable metrics to address diversity issue

Key Features of Revised Accreditation Framework

- ❖ A Paradigm shift in approach and philosophy.
- ❖ From qualitative peer judgments to data based quantitative indicator evaluation.
- ❖ System Generated scores(SGS) with combination of online evaluation(70%) and peer judgment (30%)
- ❖ Automated Evaluation Model with Increased objectivity & transparency.
- ❖ Significant difference in evaluation of Universities, Autonomous Colleges and Affiliated/Constituent Colleges.
- ❖ Introducing key indicators on Alumni engagement and Student satisfaction survey.
- ❖ Data validation by external professional agencies.
- ❖ Appropriate penalty provisions evolved for institutions submitting fraudulent data/information/supporting documents.

Key Features of RAF

Quality Benchmarks

- ▶ Benchmarks for each metrics are designed taking the consideration of academic experts' views and field testing.
- ▶ The benchmarks of QIF are designed on 0-4 scale and these benchmarks are tested using pilot study.
- ▶ A series of meetings were conducted for statistical analysis of benchmark values of quality indicator framework.
- ▶ Separate benchmarks are designed for university, autonomous and affiliated colleges

Pre- qualifier for visit

- ▶ Institution has to secure at least 30% in the quantitative metrics to qualify for peer team visit (PTV) which is considered as a cut off score

Third party data validation –

- ▶ Data submitted by HEIs is being scrutinised, verified and validated by the third party evaluators commonly referred as Data Verification and Validation (DVV) partners
- ▶ Fully system orchestrated process where HEI, NAAC Co-ordinator and DVV partner exchange data and clarifications

Key Features of RAF

100 % ICT based Process

- ▶ The entire process of Assessment methodology is ICT based evaluation from preliminary stage of application called IIQA till the result declaration.
- ▶ (IIQA, SSR, DVV, Pre-qualifier and PTV. The final outcome is a combination of System Generated Scores (SGS), SSS and Peer team score from peer team visit on Qualitative evaluation of the institute.

Institutional Information for Quality Assessment (IIQA)

- ▶ In order to reduce the duration of the process, Initial Application comprising Letter of Intent (LOI) and Institutional Eligibility for Quality Assessment (IEQA) involving eligibility checks document verification and indicator based screening formats were designed and deployed as a single application called as Institutional Information for Quality Assessment (IIQA) thereby reducing the cycle time for each institution.
- ▶ **Automatic selection** - The system will automatically allot the HEIs to the concerned NAAC Officers (System choosing and allocation of HEIs), DVV partners for third party evaluation and assessors selection based on the type of HEI (university/ subject specialisation/ offerings, non local etc,)

QUALITY INDICATOR FRAMEWORK (QIF)

The criteria based assessment forms the backbone of A&A process of NAAC. The seven criteria represent the core functions and activities of a HEI. In the revised framework not only the academic and administrative aspects of institutional functioning but also the emerging issues have been included. The seven Criteria to serve as basis for assessment of HEIs are:

- ▶ Curricular Aspects
- ▶ Teaching–Learning and Evaluation
- ▶ Research, Innovations and Extension
- ▶ Infrastructure and Learning Resources
- ▶ Student Support and Progression
- ▶ Governance, Leadership and Management
- ▶ Institutional Values and Best Practices

Under each Criterion a few Key Indicators are identified. These Key Indicators (KIs) are further delineated as Metrics.

QIF Statistics

Type of HEIs	Universities	Autonomous Colleges	Affiliated Colleges
Criteria	7	7	7
Key Indicators	34	34	32
Qualitative Metrics (QIM)	38	38	41
Quantitative Metrics (QnM)	99	98	80
Total Metrics (QIM + QnM)	137	136	121

Criteria and Key Indicators with its Weightages

Criteria	Key Indicators	Universities	Autonomous Colleges	Affiliated / Constituent Colleges
1. Curricular Aspects	1.1 *(U) Curriculum Design and Development	50	50	NA
	1.1. *(A) Curricular Planning and Implementation	NA	NA	20
	1.2 Academic Flexibility	50	40	30
	1.3 Curriculum Enrichment	30	40	30
	1.4 Feedback System	20	20	20
	Total	150	150	100
2. Teaching-Learning and Evaluation	2.1 Student Enrolment and Profile	10	20	30
	2.2 Catering to Student Diversity	20	30	50
	2.3 Teaching-Learning Process	20	50	50
	2.4 Teacher Profile and Quality	50	60	80
	2.5 Evaluation Process and Reforms	40	40	50
	2.6 Student Performance and Learning Outcomes	30	50	40
	2.7 Student satisfaction Survey	30	50	50
Total	200	300	350	

Criteria	Key Indicators	Universities	Autonomous Colleges	Affiliated / Constituent Colleges
3. Research, Innovations and Extension	3.1 Promotion of Research and Facilities	20	20	NA
	3.2 Resource Mobilization for Research	20	10	10
	3.3 Innovation Ecosystem	30	20	10
	3.4 Research Publications and Awards	100	20	20
	3.5 Consultancy	20	10	NA
	3.6 Extension Activities	40	50	60
	3.7 Collaboration	20	20	20
	Total	250	150	120
4. Infrastructure and Learning Resources	4.1 Physical Facilities	30	30	30
	4.2 Library as a Learning Resource	20	20	20
	4.3 IT Infrastructure	30	30	30
	4.4 Maintenance of Campus Infrastructure	20	20	20
	Total	100	100	100
5. Student Support and Progression	5.1 Student Support	30	30	50
	5.2 Student Progression	40	30	45
	5.3 Student Participation and Activities	20	30	25
	5.4 Alumni Engagement	10	10	10
	Total	100	100	130

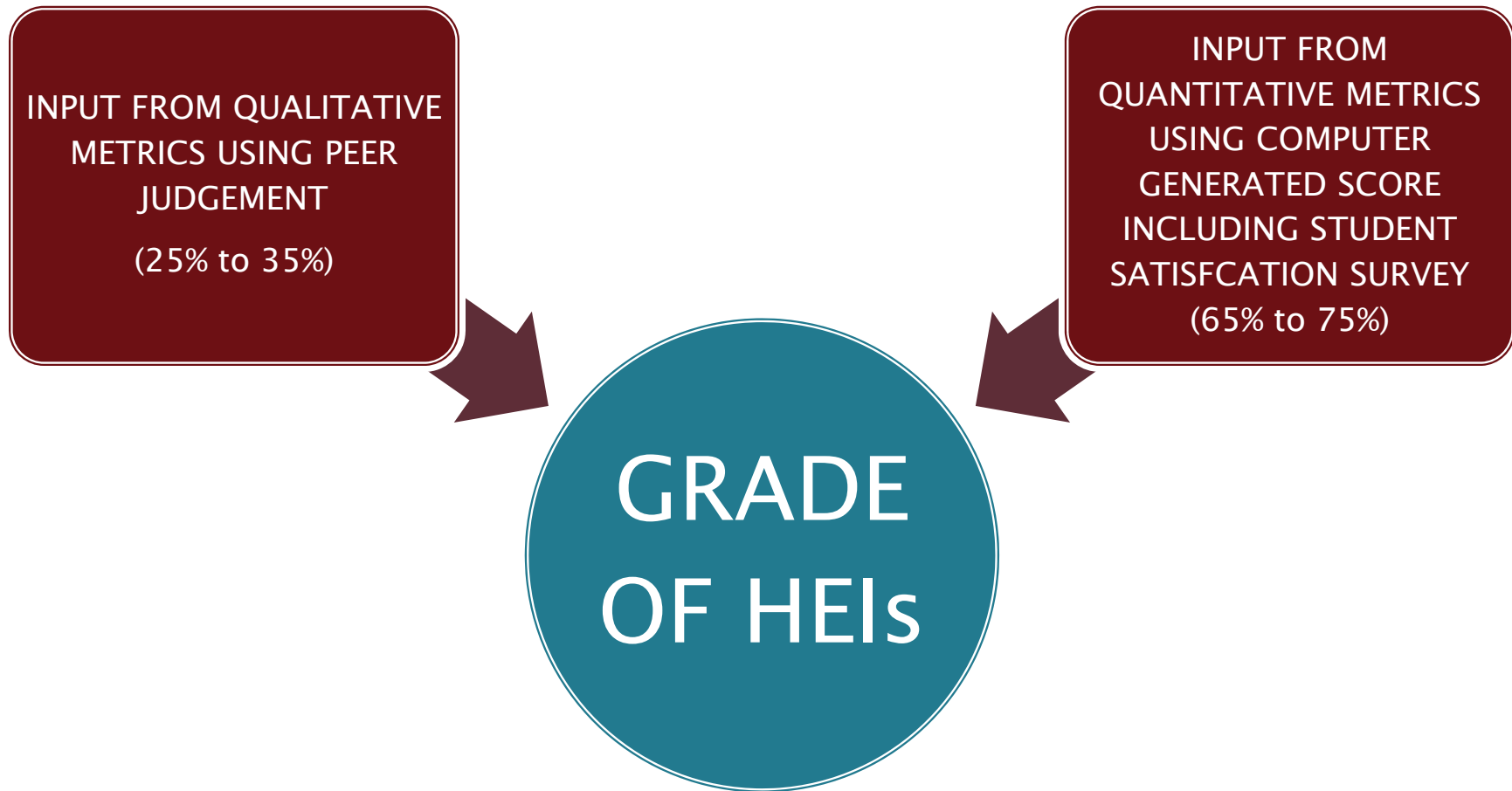
Criteria	Key Indicators	Universities	Autonomous Colleges	Affiliated / Constituent Colleges
6. Governance, Leadership and Management	6.1 Institutional Vision and Leadership	10	10	10
	6.2 Strategy Development and Deployment	10	10	10
	6.3 Faculty Empowerment Strategies	30	30	30
	6.4 Financial Management and Resource Mobilization	20	20	20
	6.5 Internal Quality Assurance System	30	30	30
	Total	100	100	100
7. Institutional Values and Best Practices	7.1 Institutional Values and Social Responsibilities	50	50	50
	7.2 Best Practices	30	30	30
	7.3 Institutional Distinctiveness	20	20	20
	Total	100	100	100

Example: Qualitative Metric (Q₁M) and Quantitative Metric (Q_nM)

Key Indicator - 1.3 Curriculum Enrichment (30)

Qualitative/ Quantitative Metrics	1.3. Curriculum Enrichment (30)	Benchmark Values				
		4	3	2	1	0
1.3.1 Q ₁ M	Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum (10)					
1.3.2 Q _n M	Number of value-added courses imparting transferable and life skills offered during the last five years (10)	≥AA	AA-BB	BB-CC	DD-CC	<DD
1.3.3 Q _n M	Percentage of students enrolled in the courses under 1.3.2 above (5)	≥AA	AA-BB	BB-CC	DD-CC	<DD
1.3.4 Q _n M	Percentage of students undertaking field projects / internships (5)	≥AA	AA-BB	BB-CC	DD-CC	<DD

System Generated Grade of HEIs:



NAAC Accreditation Outcome Document

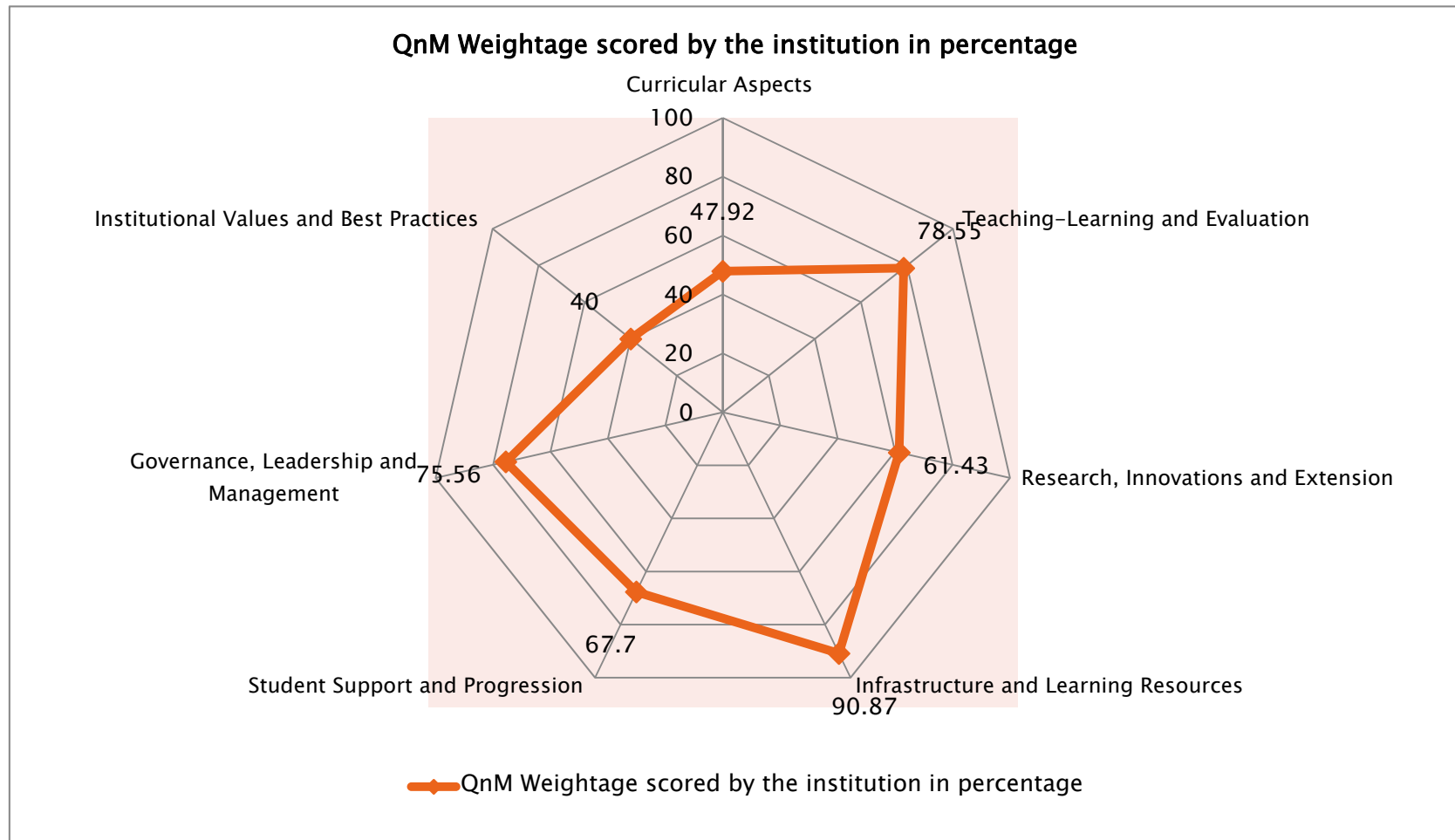
1	Peer Team Report
2	Statistical Analysis of Quantitative Metrics (Q _n M)
3	Institutional Grade Sheet

Above three (3) parts would be combined together to form “NAAC Accreditation Outcome” document. It would be made mandatory for HEIs to display it on Institutional website apart from hosting it on NAAC website.

Assessment and Accreditation Outcome

- ▶ **Outcome documents:** RAF of NAAC has introduced many new concepts in its process. The final outcome of Assessment and Accreditation exercise brings an outcome document which is based on ICT score (combination of evaluation of qualitative and quantitative metrics). This document comprises of 3 parts
- ▶ **Peer Team Report:** This report provides general information for the institution and its context along with criterion wise analysis based on peer evaluation of qualitative indicators, overall analysis on Institutional Strengths, Weaknesses, Opportunities and Challenges and also recommendations for Quality enhancement of the Institution.
- ▶ **Quality Profile of the Institution:** This is a graphical representation report based on Quantitative Metrics (Q_nM) which is a System Generated Quality Profile of the HEI based on statistical analysis of quantitative indicators in the NAAC's QIF (Quality Indicator Framework). This graphical presentation of institutional features were reflected through synthesis of quantifiable indicators.
- ▶ **Institutional Grade sheet:** This contains the Institutional Grade Sheet which is based on qualitative indicators, quantitative indicators and student satisfaction survey using existing calculation methods but generated through the software.

RAF-Quantitative Metrics (Q_nM) Weightage distribution across the criteria

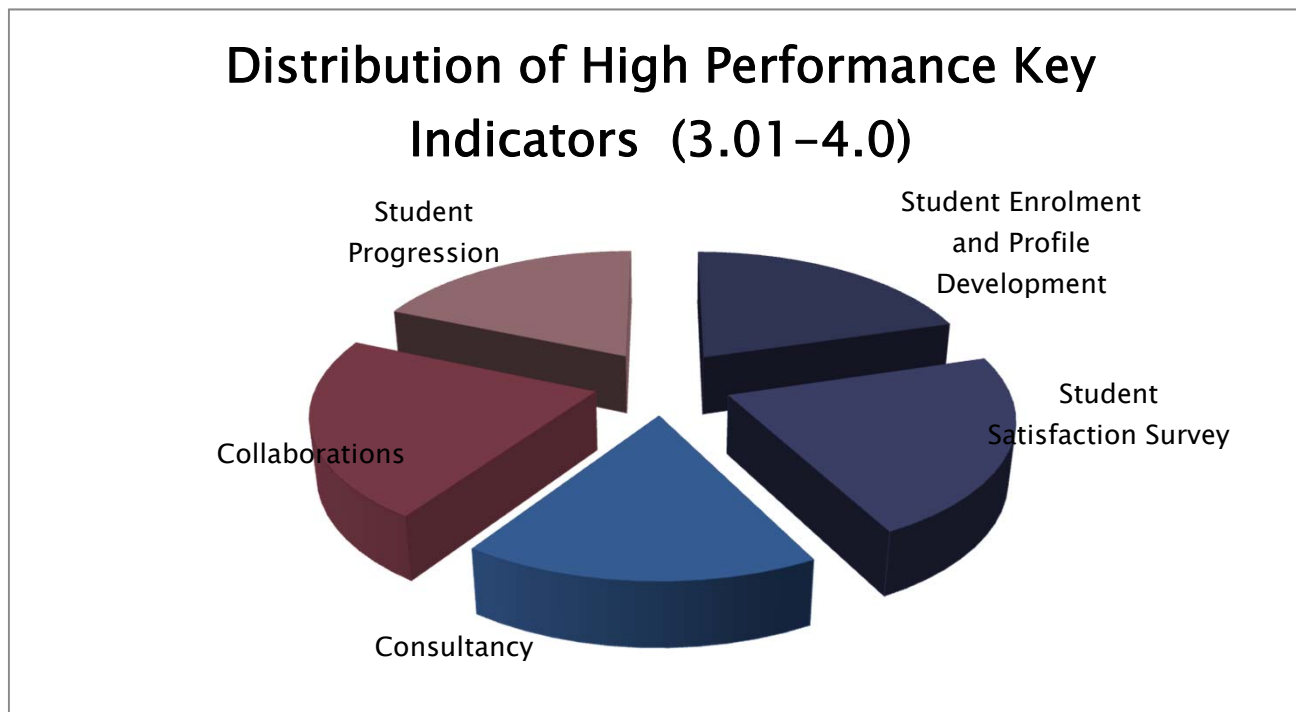


The figure 1, Radar graph depicts the criterion wise distribution of weighted scores (only quantitative) for the sampled institution. The institution has scored 47.92% for Curricular Aspects, similarly 78.55% for Teaching, Learning and Evaluation and 61.43% for Research, Innovations and Extension respectively.

On the basis of quantitative metrics, the institution has scored 65.58% across the criteria. Hence the institution has qualified for the peer team visit (PTV), where the pre qualifier for PTV is 30% on the quantitative metrics

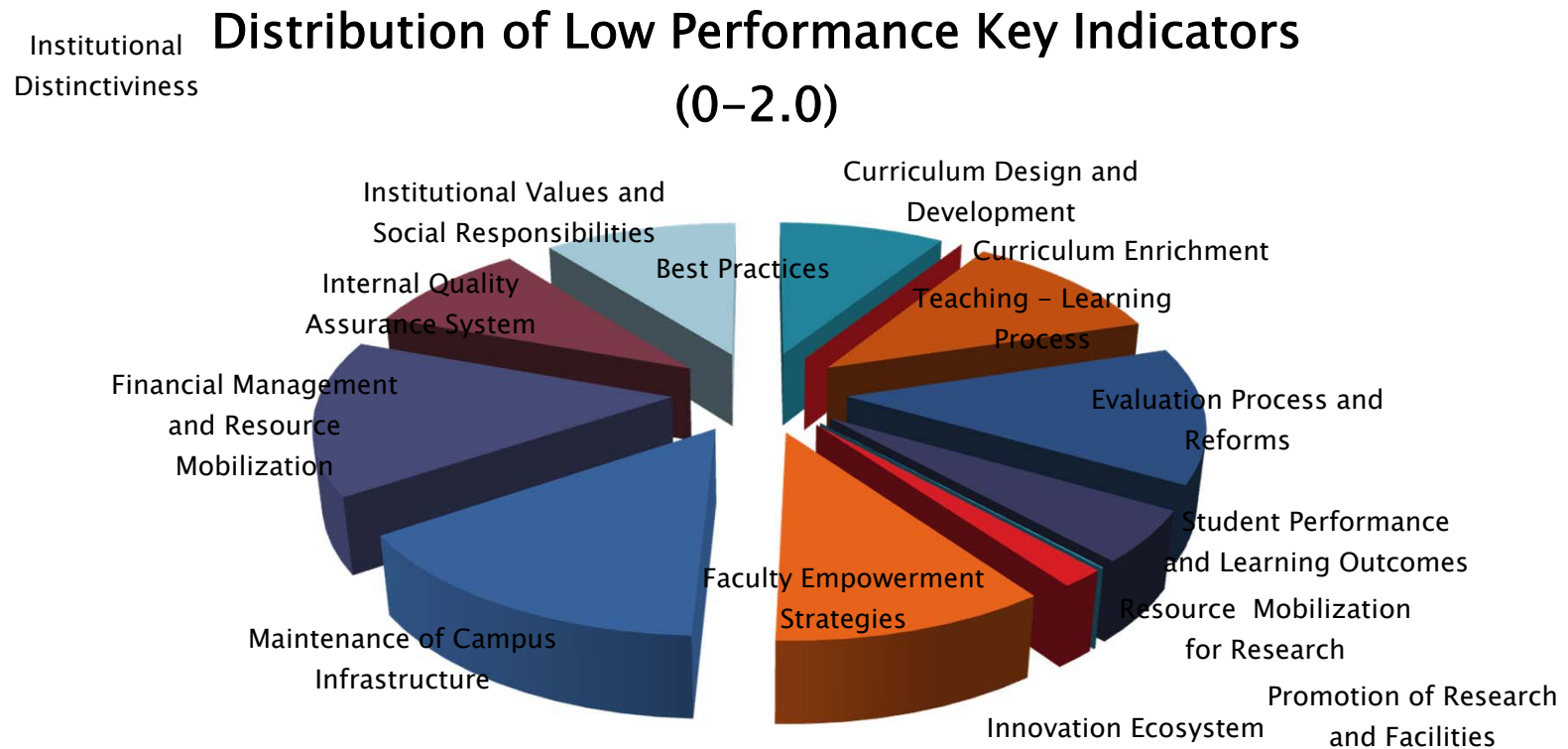
High Performance Key Indicators (3.01-4.0)

The pie chart shows the high performance key indicators for the sampled institution.



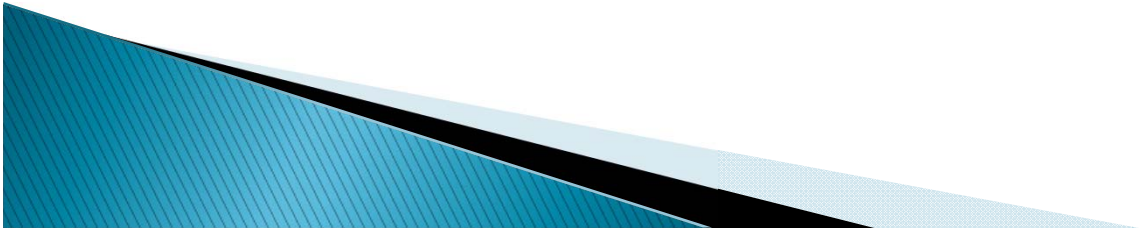
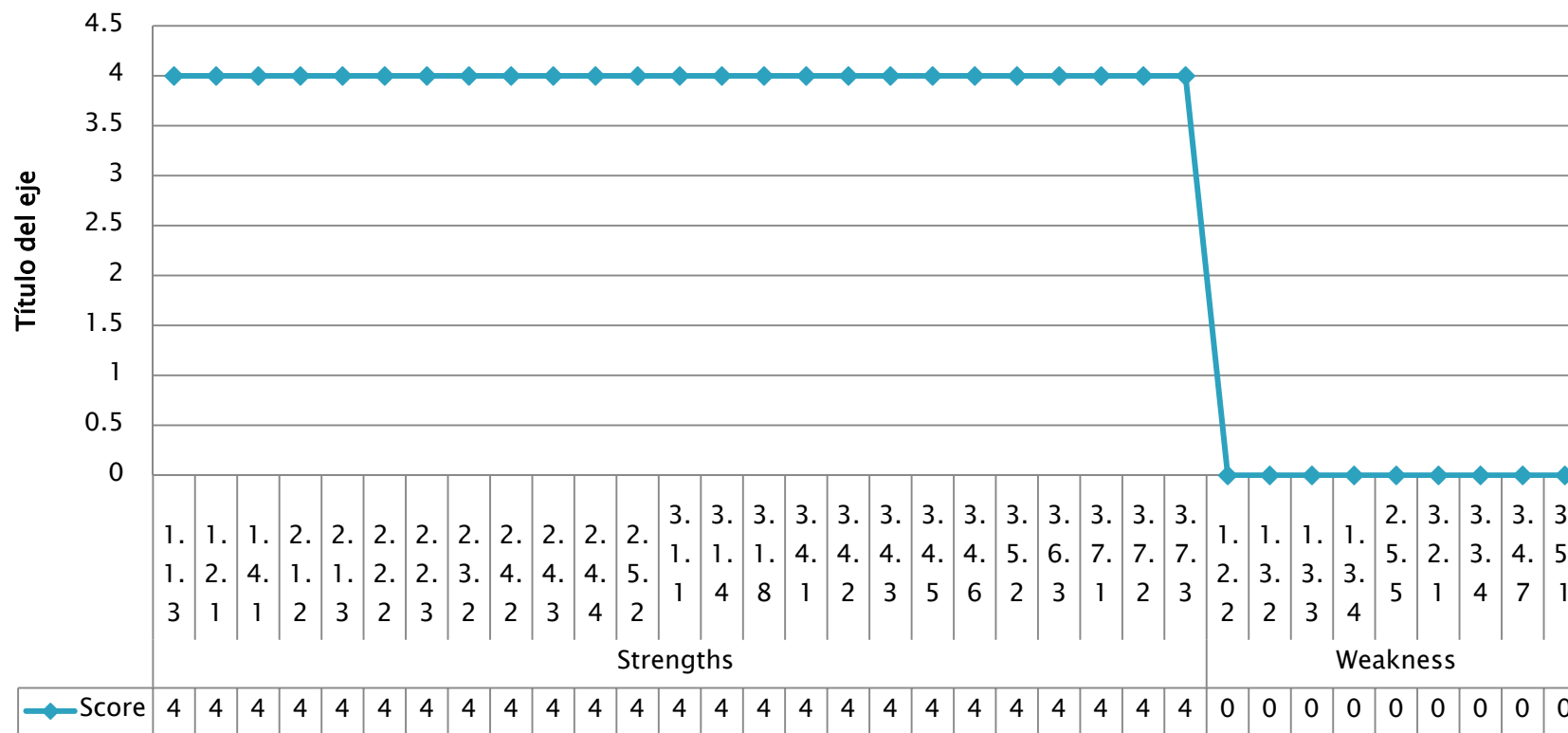
Low Performance Key Indicators(0-2.0)

The pie chart shows the low performance key indicators for the sampled institution



Graphical representation of Strengths (4) and weakness (0) of the institution based on Q_nM

Graphical representation of Strengths and weakness of the institution based on Q_nM (Criterion I,II and III)



Pre-qualifiers for HEIs

The Quantitative Metrics (Q_nM) of SSR will be sent for Data Validation and Verification (DVV) Process. After DVV process, a DVV Deviation report will be generated. On the basis of the Deviation report, the A&A process will proceed further as per the following conditions:

- ▶ Institutions whose metrics have deviated by $\leq 10\%$ will proceed for Peer Team Visit with a condition of a Pre-qualifier, that the institution should score at least 30% in Quantitative Metrics (Q_nM) as per the final score after the DVV Process. If the HEI does not clear the Pre-qualifier score then they may apply in any of the subsequent Windows by submitting the IIQA afresh and with payment of fees.

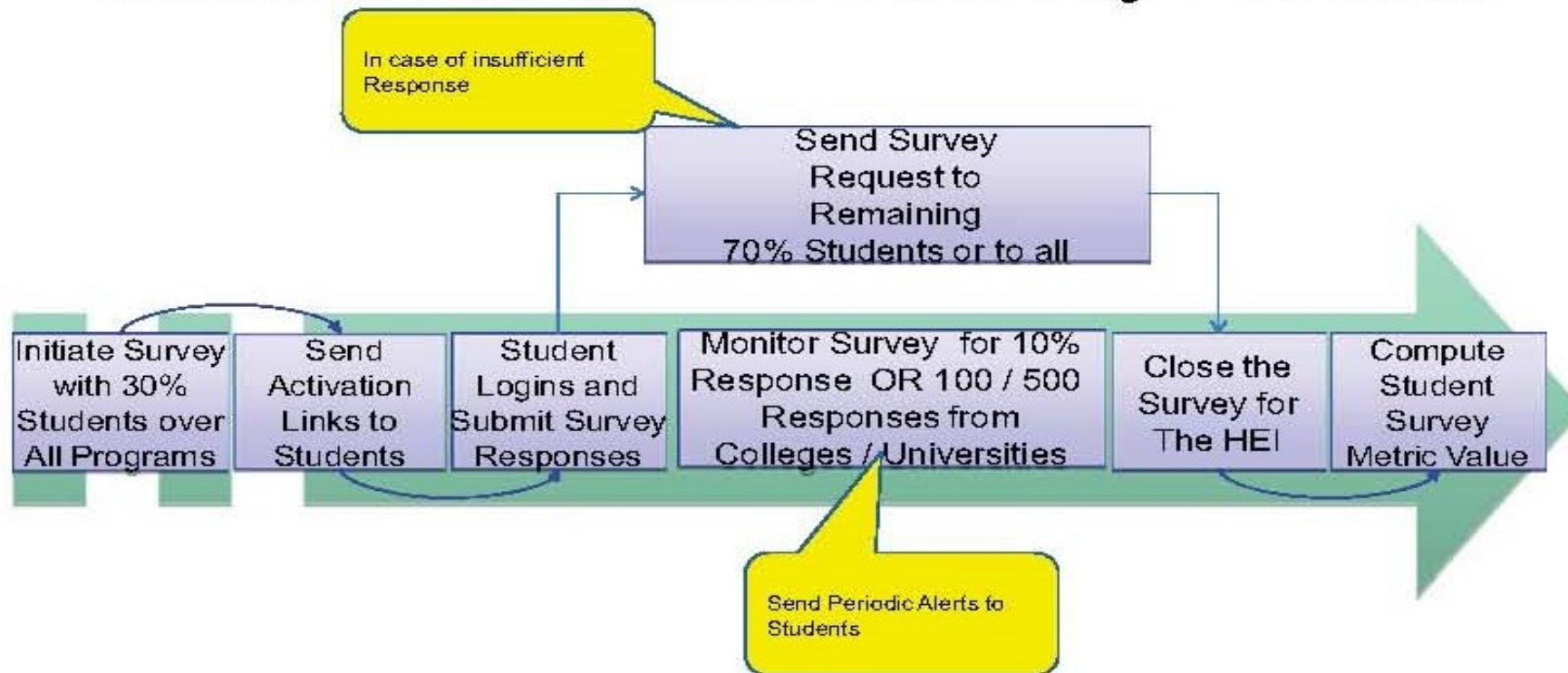
Student Satisfaction Survey (SSS) :

- ✓ Institutions will have to submit the entire database. (At least 50% Student population)
- ✓ The SSS questionnaire will be mailed to all students.
- ✓ Responses should be received from at least 10% of the student population or 100 in case of Colleges. (10% or 500 whichever is less in case of Universities)
- ✓ If the response rate is lower than the limits, the metric will not be taken up for evaluation.

Student Satisfaction Survey (SSS)

- ▶ Aimed to capture the student satisfaction about the teaching, learning and evaluation process which will help to upgrade the quality of higher education.

Student Satisfaction Survey Process



QIF for Specialised HEIs

NAAC has embarked on mission to address different categories of institutions by designing separate methodology to special category of HEIs through developing separate quantitative and qualitative metrics for variety of specialised HEIs such as Yoga, Sanskrit, Open and distance learning (ODL), Health Sciences etc.

Optional Metrics

Besides this, NAAC also introduced optional metrics - the provision to opt out some of the metrics which may not be applicable to institutes for various reasons and essential metrics, provision to HEIs i.e., mandatory and necessary to attend the essential metrics.

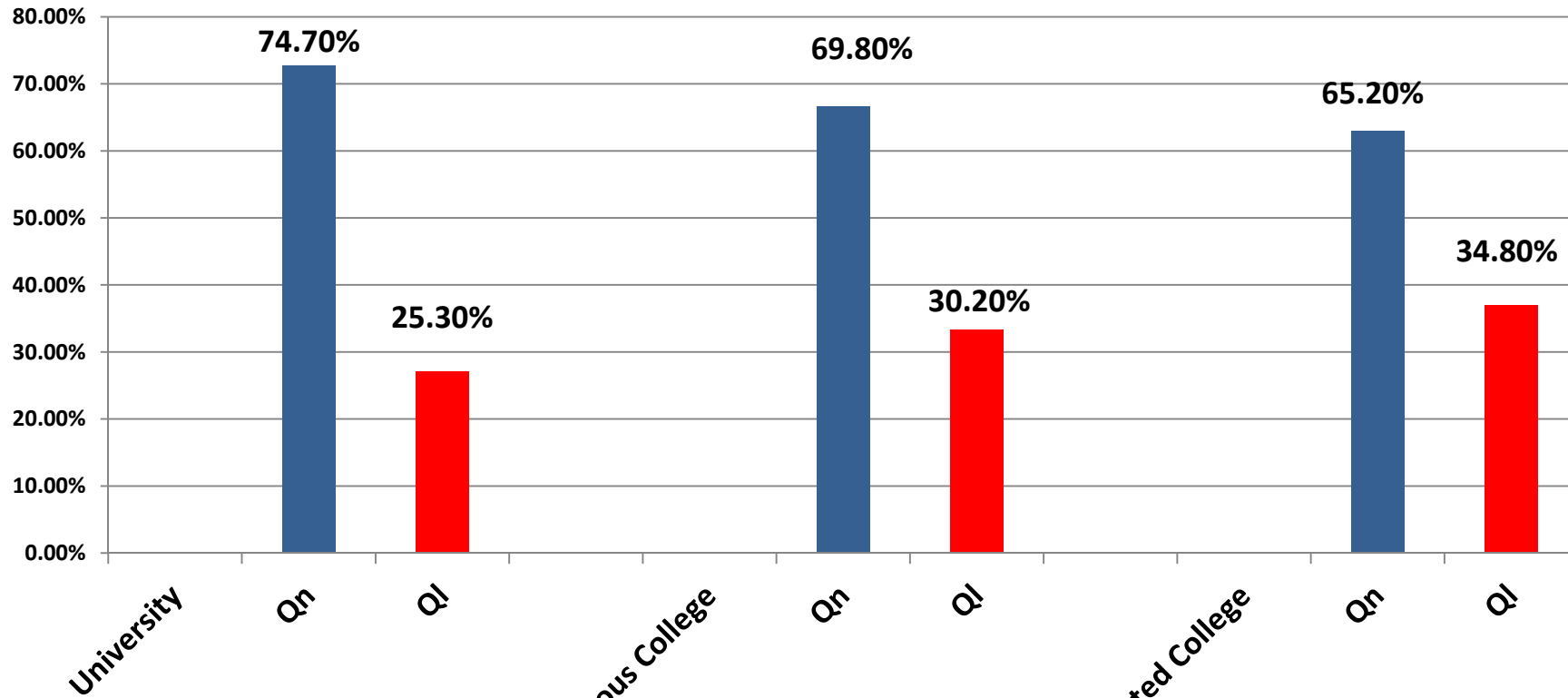
Revised Grading System of NAAC w.e.f. October 2017

Range of Institutional Cumulative Grade Point Average (CGPA)	Letter Grade	Status
3.51-4.00	A++	Accredited
3.26-3.50	A+	Accredited
3.01-3.25	A	Accredited
2.76-3.00	B++	Accredited
2.51-2.75	B+	Accredited
2.01-2.50	B	Accredited
1.51-2.00	C	Accredited
≤ 1.50	D	Not Accredited

Current and Revised Framework by NAAC

S.No	Current Process	Revised Process
1	Accreditation Process - outcome based on Peer judgment	Data based quantitative indicator evaluation with combination of peer judgment
2	Elaborate process of self and external evaluation covering 7 criteria, 36 key aspect, 200 indicators and about 300 questions	Significant reduction in self/external evaluation covering 7 criteria, 34 key indicators and about 130 metrics
3	No pre-qualifier for Peer Team Visit: Visit takes place for all HEIs after SSR submission	Pre-qualifier for Peer Team Visit : Institution needs to score at least 30% of the quantitative (system generated) score.
4	Interaction with students - onsite	Online student satisfaction survey
5	Onsite data verification by academic peers	Data verification and validation by External Agency
6	Manual Selection of peer team	System enabled selection of peer teams for onsite visit
7	Logistics arrangement done by Institutions themselves (Team constitution known quite earlier)	Integration of logistics through External Agency. Total confidentiality till visit date.

Weightage of Q₁ & Q_n Metrics on QIF

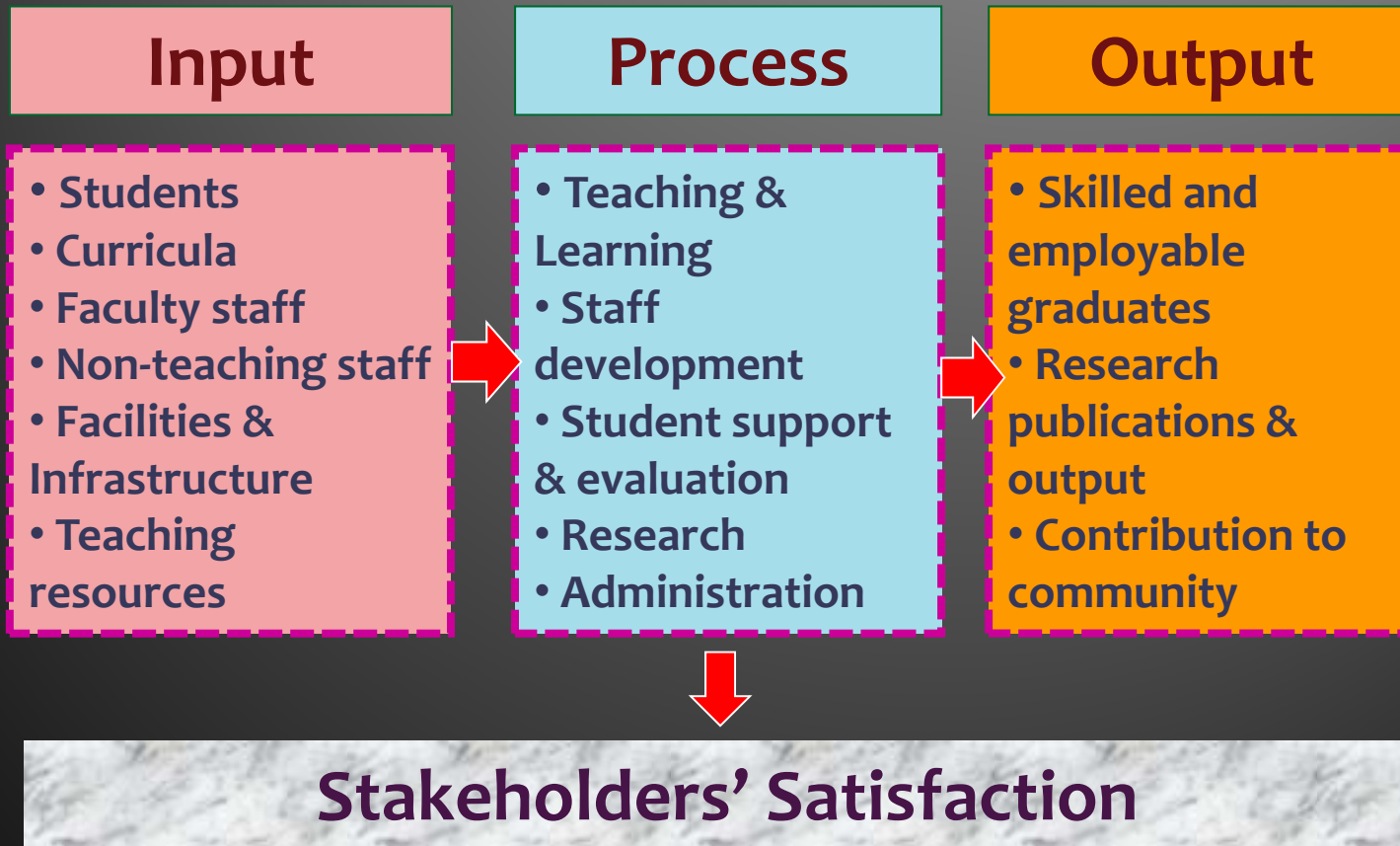


Total Weightage - 1000

The highlights of present QIF is as follows:-

2.7 - Student satisfaction Survey	30	50	50
3.3 - Innovation Ecosystem	30	20	10
5.4 - Alumni Engagement	10	10	10
7.1 - Institutional Values and Social Responsibilities	50	50	50
7.2 - Best Practices	30	30	30
7.3 - Institutional Distinctiveness	20	20	20

Stakeholder Focus

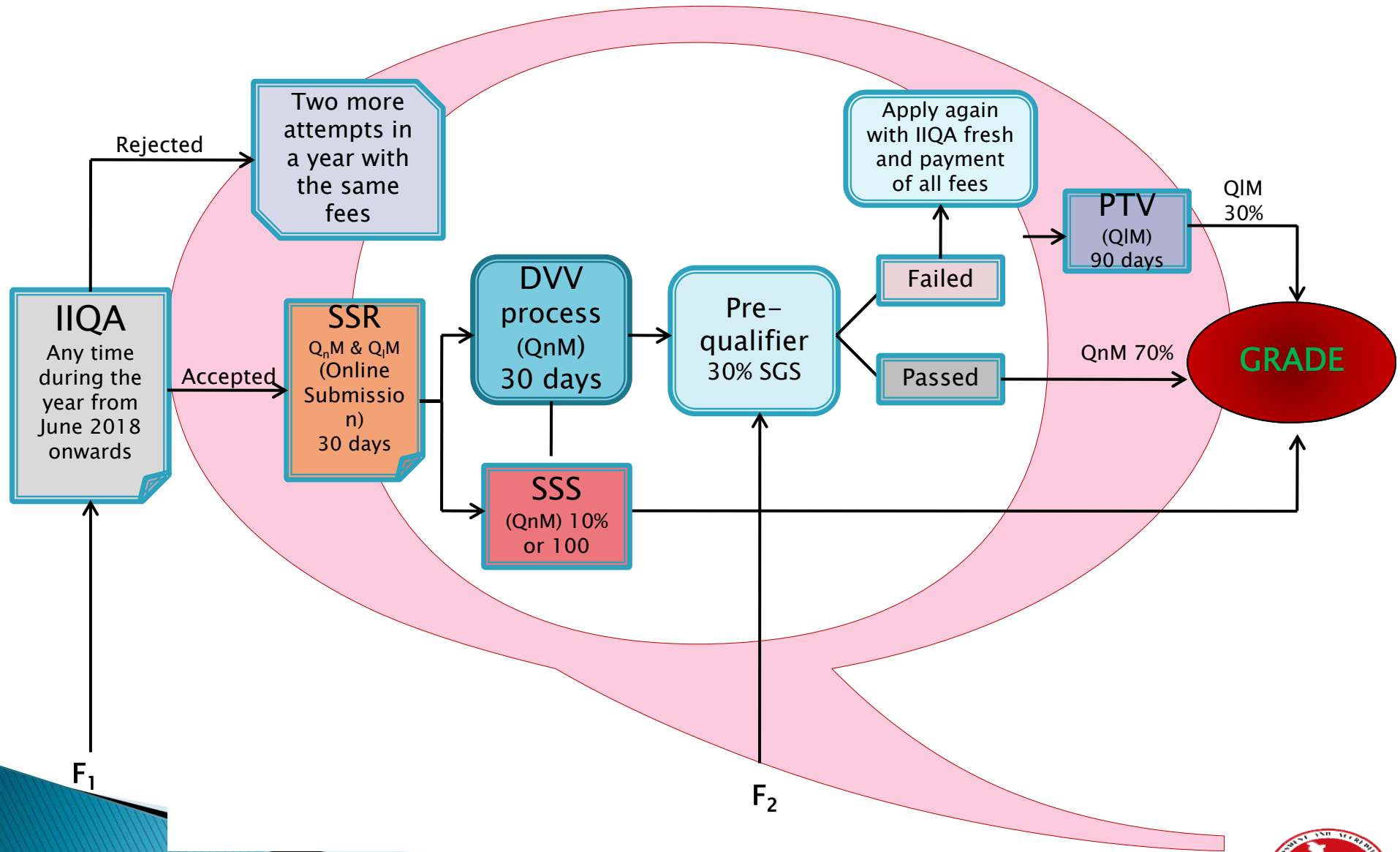


QIF Metrics Bifurcation

Out of total 121 Metrics

- ▶ 30 – Input based Metrics
- ▶ 53 – Process based Metrics
- ▶ 38 – Output based Metrics

Process of Assessment and Accreditation



NAAC Reforms: Impact and expected outcomes

- ▶ Reducing the subjectivity due to variance in peer team assessment.
- ▶ Inculcation of competitive spirit by providing Quantitative benchmarks as basis of assessment.
- ▶ Improvement of data management practices in HEIs.
- ▶ Increased use of ICT in Teaching, Learning and Governance for quality improvement.
- ▶ Integrating the stakeholders involvement and feed back in quality improvement. (Key Indicators like Feedback System, Student Satisfaction Survey, Alumni Engagement)

NAAC Reforms: Impact and expected outcomes

- ▶ Introduction and acceleration of Outcome Based Education (OBE).
- ▶ Encouraging the culture of innovation and start-up on campuses.
- ▶ Reinforcement of value and ethics (Criteria VII on Institutional Values and Best practices).
- ▶ Institutionalisation of quality culture (IQAC, etc)
- ▶ Promoting gender sensitivity on the campus.
- ▶ Incentivising the inclusive practices such as reservation policy, differently abled (Divyangjan) friendly campus, etc)

NAAC Reforms: Impact and expected outcomes

- ▶ Encouraging students to participate in extension activities such as Swatch Bharat, Aids Awareness, Gender Issues, etc.,
- ▶ Promoting e-resources of library for easy access to students.
- ▶ Focus on research in Universities (metrics on Patents, Citations, h-index, etc.,)
- ▶ Emphasis on skills and co-relation of academics with word of work.
- ▶ Attempt to reach golden mean of advantages of Rankings and Quality assurance process.
- ▶ Introducing new concept of Third party validation of Data by external agencies.

NAAC Reforms: Impact and expected outcomes

- ▶ Encouraging mobility of students and teachers.
- ▶ Recognising diversity (Optional Metrics).
- ▶ Relevance of curriculum with societal needs and global trends.
- ▶ Faculty empowerment (FDP, seed money, awards, etc.,)
- ▶ Encouraging eco-friendly practices on campus.

RAF - Analysis of Results of Accreditation

Analysis of Results of Accreditation declared as on 4th March 2019.

The results of **717** HEIs have been declared under the Revised Accreditation Framework (RAF). The Grade wise break up is presented in **Table 1**.

- ▶ **86** HEIs have scored **A** and above
- ▶ **505** have scored between **B** and **B++**
- ▶ **115** have scored **C** grade
- ▶ **11** have scored **D** grade – means not accredited

RAF - Analysis of Results of Accreditation

Table 1: Grade wise break up

Grade	Number of Universities	Number of Colleges	Total
A++	3	3	6
A+	5	16	21
A	4	55	59
B++	4	106	110
B+	9	131	140
B	12	243	255
C	8	107	115
D	0	11	11
Total	45	672	717

**Cycle wise details of Institutions accredited under Revised Accreditation Framework (RAF) by NAAC
(As on 4th March 2019)**

	Cycle1	Cycle 2	Cycle 3	Cycle 4	Total
Universities	30	7	6	2	45
Colleges	368	117	179	8	672
Total	398	124	185	10	717

Issues and Challenges of RAF

Diversity

The revised accreditation framework model is a general tool i.e 'one size fits all model'. Some of elements and parameters covered in the model may not be applicable.

In order to address the challenge of diversity, NAAC has introduced optional metrics where institutions can claim not applicable up to 5%.

Faculty Shortage/Funding Issues

Some of the issues where there is possibility of low scoring due to reasons beyond their control such as faculty shortage/funding issues. Since the NAAC A&A is a diagnostic quality tool, these elements are essential for evaluating quality and have been incorporated.

Systemic Limitations

A few of the stakeholders have reported that State government norms, affiliating university issues, implementation of Choice-Based Credit System (CBCS), student-teacher ratio, etc. may create limitations for institutions. Since A&A is not a homogenising tool, the issue of systemic limitations may have to be addressed at the policy level rather than excluding such factors from the evaluation framework.

RAF - Challenges & Way Forward

- ▶ Resistance for change from stakeholders to complete transition to ICT based data driven model.
- ▶ Need for considering feedback from the field and fine-tuning the framework.
- ▶ Field reaction on tough results with down-grading.
- ▶ Concerns/litigations due to linking of CGPA with grants/recognition/status.

Impact and Way forward

- ▶ Right step in the new era of technology driven mode of assessment.
- ▶ Possibilities of Integrating RAF work with India-Europe Benchmarking Project on selected European and Indian Universities on **“Enhancing Quality Assurance Management and Benchmarking strategies in Indian Universities”** (EQUAM-BI).
- ▶ Novel experiment of integration of Student Satisfaction Survey (SSS) into formal A&A process can be emulated by other agencies.
- ▶ Raising bar of Indian HEIs through competitive benchmarks using quantitative metrics.
- ▶ Experience by NAAC in use of ICT based data driven assessment and accreditation and combination of Qualitative Metric (Q₁M) & Quantitative Metric (Q_nM) for assessment: A good practices worth adoption.

NAAC Initiatives:

- ▶ Establishment of **Research and Analysis Wing**: Memorandum of Understanding (**MoU**) with Indian Institute of Management Tiruchirappalli (**IIM-T**), Tamil Nadu.

Mass Campaign to reach unreached:

NAAC's Educational Media Centre

- Capacity building to reach/accredit 5000 HEIs per year.
- Virtual Programmes for assessors to enroll/train over 10,000 experts.
- Quality Sustenance initiatives used digital/broad costing mode.

Towards Global Virtual Accreditation Resource Centre



THANK YOU



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