FEASIBILITY STUDY INTO THE RELEVANCE OF A TUNING APPROACH FOR HIGHER EDUCATION IN INDIA

FINAL REPORT

October 2014
Contents

Executive Summary ................................................................. 4

1. Introduction ............................................................................. 7

2. Tuning Educational Structures: Cooperative Development of Higher Education ........................................... 8
   2.1 The Tuning Approach ............................................................. 9
   2.2 Other Tuning Work ............................................................. 11

3. Methodology of the Feasibility Study ................................. 12
   3.1 Aims of the Feasibility Study ............................................. 12
   3.2 The Design of the Study .................................................... 12
   3.3 Sampling ............................................................................ 13

4. The Regions in India ............................................................... 16
   4.1 North Region ..................................................................... 16
   4.2 Central Region .................................................................... 17
   4.3 East Region ......................................................................... 20
   4.4 West Region ....................................................................... 21
   4.5 South Region ...................................................................... 22

5. Results of the Feasibility Study ............................................ 25
   5.1 Higher Education in India: An Overview .......................... 25
   5.2 Government Policy ............................................................ 26
   5.3 Size of the Sector ............................................................... 27
   5.4 The Structure of Higher Education .................................... 29
   5.5 Open and Distance Learning .............................................. 31
   5.6 Enrollment and Access ....................................................... 32
   5.7 Subjects Studied ................................................................. 33
   5.8 Credit System ..................................................................... 34
   5.9 Approaches to Teaching and Learning .............................. 35
   5.10 University Staff or Faculty ................................................ 36
   5.11 Role of Employers and Professional Bodies ............ 38
   5.12 Quality Assurance, National and Institutional .......... 40
   5.13 National and International Networks ......................... 41
   5.14 General Response to Tuning .............................................. 42
   5.15 Challenges to the Implementation of a Tuning Pilot Project ............................................................................. 43
   5.16 Subjects Areas to Consider .............................................. 46

6. Conclusions ............................................................................. 47

7. Recommendations ................................................................. 48

8. Suggested Design of a India-Tuning Pilot Project ............ 49
8.1 MANAGEMENT STRUCTURE OF A PILOT PROJECT .. 50
8.1.1 POLICY GROUP (NATIONAL TUNING CENTRE – NTC) .. 50
8.1.2 SUBJECT AREA GROUPS (SAGS) ......................... 51
8.1.3 MANAGEMENT COMMITTEE ............................ 51
8.4 POSSIBLE SCENARIOS FOR A TUNING PROJECT IN INDIA 52
8.4.1 SCENARIO A: NATIONAL APPROACH ................. 52
8.4.2 SCENARIO B: SUB-REGIONAL APPROACH .......... 53
8.4.3 SCENARIO C: A COMBINATION OF THE NATIONAL AND
SUBREGIONAL APPROACHES ................................. 54

9. REFERENCES .................................................. 56
10. APPENDICES .................................................. 59

10.1: STUDENT ORGANIZATIONS IN INDIA AND
THEIR AFFILIATIONS ........................................... 61

10.2: GLOSSARY OF ABBREVIATIONS
AND ACRONYMS ................................................. 63
Executive Summary

- This Feasibility Study into the relevance of a Tuning project in India was initiated by the European Commission within the broad cooperative relationship between India and the European Union (EU). The aims of the study were to ascertain to what extent a Tuning project might contribute to, and be appropriate within, the strategic objectives of the reform of Higher Education in India; whether Higher education institutions would find it appropriate; how it could be implemented, on what scale and with which subject areas or disciplines. (section 3.1)
- A qualitative approach was used to research the feasibility, including literature searches, interviews and selected site visits in the five regions of India, and a final consultative seminar in Delhi. (section 3.2)
- The Tuning approach, widely used throughout the world, comprises a culturally adaptable methodology and a set of tools for curriculum reform in all its aspects. It is particularly appropriate to the Indian circumstances because it is not identified with a single country but harnesses the diversity of strengths and culture. (section 2)
- National level policies for higher education in India are beginning to focus on skills and competence development. This large education system is developing international competitiveness, and is welcoming partners and innovative initiatives from different stakeholders for faster and more inclusive improvement. (section 5.1)
- The reform of higher education has already commenced in India. The system has increased rapidly; the number of Universities has increased from 27 in 1950 to 700+ in 2014, and the number of (mainly undergraduate) colleges has increased exponentially from 578 in 1950 to over 35,000 in 2014. Private education provision has also increased, with some universities and 60% of colleges now funded by industry or student fees. 80 additional universities are planned to be completed by 2017 under the 12th Five Year Plan, 45 through converting colleges to universities and 35 through clustering colleges and then converting the clusters to universities. (section 5.1)
- The overall response to the investigation was positive, from the level of Government to university lecturers to employers groups. It was felt that a Tuning project would support the reform. (5.14)
- The higher education system in India has notable strengths.
  - Regarding governmental policy, India is characterized by openness in the availability of public documents on issues in Higher Education.
  - A unique strength in the Indian system, and one which could be a model for the whole world of Tuning, is the practical and theoretical interest that the world of work demonstrates in Higher Education.
Reform of university education is already taking place, even if only at the planning stage in some aspects. The infrastructure for the staff development that would be required for both expansion and reform is already in place and is being strengthened. Quality assurance and accreditation mechanism in higher education exist. Formal quality assurance has been a voluntary exercise in the past; but it is planned to become compulsory for all. (section 5)

- Of course a number of challenges were raised from oral responses and from the literature study. (5.15)
  - Most criticisms of the HE system derives from the perceived employability of graduates. Most first degree graduates are educated in the 35,000 colleges affiliated to the 700+ universities.
  - The HE system is essentially hierarchical: most institutions perceive that they need to receive instruction or guidance from above.
  - There is a justly proud culture of university education, and both academics and many members of society prioritize knowledge acquisition. The introduction of competences and skills and a consideration of how employability factors can be addressed more overtly is viewed with the suspicion that this will diminish the strength of the academy.
  - Reform requires resources, especially human resources. Universities – and colleges – are pressed to increase research activity; staff to be champions of reform processes need support and materials to help them involve others.
  - The link between industry and universities, while greatly desired by the former, and said to be so by the latter, is tenuous. Structures to help them collaborate would be important in a project.
  - The status of projects perceived to be external is always questioned: a system with a proud history cannot be preached to.
  - Finally, the sheer size of the country, the diversity of the higher education system, and the disparities existing in both can be a challenge.

- The reform process will include the need to
  - Involve all important stakeholder so that they ‘own’ the reform;
  - Re-formulate or formulate degree profiles;
  - Consider how student learning can include outcomes related to employment;
  - Reappraise teaching, learning and assessment;
  - Implement the proposed Indian Credit.
  - Further facilitate Quality Assurance and Quality Enhancement.

- The Tuning methodology and tools are appropriate for these purposes and have been rigorously trialled in many geographical contexts, some of which are at least as challenging as India. (section 2)

- The many strengths in the Indian system would work with the Tuning methodology to create a project both useful and feasible, particularly as typical Tuning works with internal reforms and does not impose an additional burden on busy academics and others. One particular strength is that the reform is already started, and academic staff will want to make it work for them, for their students and for their institutions. Therefore an EU partnership of this type is timely. Another is that the system is already well coordinated at the level above
The overwhelming evidence from the study suggests that a Tuning project would serve the Indian higher education system well, either as a small scale pilot project or on a rather larger scale.

It is recommended that firstly, a future Tuning project in India should be linked to existing policies and not be developed as something new that ignores those initiatives. Secondly, working academics from different types of universities (central, state, private, deemed, Indian Institutes etc.) should be the core, working together in subject areas. Thirdly, a working party of representatives of the authorities should work alongside the academic groups in order to facilitate greater cross understanding of issues and developments. Fourthly, distance learning (ODL) might, or indeed should, be included as a focus in a potential project, and that the staff colleges’ role be included. Fifthly, due attention be given in planning and implementing the project to the balance between highly developed institutions and those that face greater challenges, and that the work of the subject area groups be facilitated by careful working guidelines to mitigate workload stress and different levels of awareness of curriculum development processes. (section 7)

To deal with the size and complexity of the country and higher education system three potential scenarios are recommended. All would include a three tiered structure consisting of a National Policy group, academic working groups based on subject areas or disciplines, and a management committee drawn from the working groups to coordinate the work. (section 8)

- One scenario (A) looks at a national structure where the (five) subject area groups would be selected from representative universities nationally.
- The second (B) would be regionally based, where the groups would work wholly within the five regions and choose subjects of priority there.
- The third option (C) would combine the strengths of the other two and have a national structure with an element of regional speciality with regard to choice of subject areas.

All scenarios would take into account a balance between highly developed institutions and those facing greater challenges, and representatives from disparate areas in terms of wealth. Furthermore, all subject groups should include representatives from the staff colleges, and must include at least one distance-learning university, since Distance Learning is widely used as a means of widening access and has special challenges in terms of programme design and management.

We recommend that Scenario C be adopted since this combines the levels of national and regional representation with the advantages of both. A purely national approach (A) might not take full account of regional specificity and be logistically both challenging for Indian academics and more costly, and a purely regional approach (B) would lack the conviction of participation in a fully national endeavour.
1 Introduction

This Feasibility Study into the relevance of a Tuning project in Higher Education (HE) in India is embedded in the broad cooperative relationship between India and the European Union (EU).

The European Union and the Republic of India have a long standing relationship going back to the early 1960s, although it was not until the 1990s that it was formalized. The Joint Political Statement of 1993 and the 1994 Co-operation Agreement which is the current legislative framework for cooperation opened the door to a broad evolving political dialogue.

In the past twenty years the EU-India partnership has developed from a merely development-oriented relationship to a partnership with a clear focus on trade and economics, but with the engagement between both partners also gradually expanding from the economic to the political and security realms.

The EU is India’s largest trading partner, accounting for 19 percent of its exports and 14 percent of its imports, whilst India has recently risen to become the EU’s eighth most significant trading partner. In 2011, trade between the two blocks had a value of €79.9 billion.

The business community in India has endorsed cooperation through the formation of the India-European Union Forum of Parliamentarians (INEUFP) an initiative by FICCI to accentuate the India-EU partnership in multiple areas through inter-parliamentarian dialogue and cooperation. Politicians from across the political spectrum are represented in INEUFP.

Although the relationship between India and the EU is long standing, it has not always been seen by either side to have been sufficiently active. However, current relations have resulted in sectoral dialogues, frequent ministerial meetings, and annual summits between the Government of India and the EU.

In 2004 the EU-India strategic partnership was launched, reflecting the increasing importance of India for the EU. In 2005 a Joint Action Plan, revised in 2008, was drawn up in order to realize the full potential of the partnership in the areas of main interest for both parties. (Keukeleire and Hooijmaaijers, 2013).

Over the five years from 2007 to 2012, Science and Technology cooperation between the EU and India progressed by building partnerships in various big science and high technology projects as part of the 7th Framework Programme for Research and Technological Development (FP7). Underlining the growing cooperation, a Joint Declaration on Research and Innovation Cooperation was issued in New Delhi on 12 February 2012 (Krishna 2012).

In 2008 the India-EU Education Joint declaration was signed which facilitated a degree of mobility for students between Indian and EU Universities. In any one year more than 200,000 Indian students already study abroad, most in North America. These are impressive indicators of educational mobility, especially when one considers the educational and professional success of many of these students. European efforts to
attract larger numbers of talented students from abroad to Europe (as in the “Erasmus Mundus” programme) are likely to make these numbers grow further.

Work already taking place in India to develop a national Qualifications Framework, the move towards semesterization, and the stated policy to implement a unified credit system will greatly facilitate the move towards greater incoming internationalization in terms of students wishing to study in India.

The approach taken by the Commission is to assist the educational research and development undertaken by the Government of India, supported by academics from within the country and from a range of other countries where similar reforms have taken place, in order to achieve three main aims: the need for reform to be authentic to its environment; secondly for it to draw on best practice as seen from a common perspective; and thirdly for the academics and activists to take ownership of the reforms the Government wishes to achieve. The work of the Tuning Academy falls centrally into these criteria.

This current feasibility study provides a positive platform from which to explore how experience gained elsewhere can be of use in the current reform of Indian HE. The strength of the Tuning approach is that it does not seek to impose European solutions – or indeed solutions from any source - but to foster intercommunication (nationally and internationally) in collaborative work.

2 Tuning Educational Structures: Cooperative Development of Higher Education

During the past thirty years higher education in all continents has undergone considerable change, partly in response to a growing need for places, partly from increasing demands from employers for greater clarity with regard to what students have achieved, and partly as a consequence of trends in globalization and internationalization.

‘Globalization, a key reality in the 21st century, has already profoundly influenced higher education. We define globalization as the reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions. Internationalization is defined as the variety of policies and programs that universities and governments implement to respond to globalization. These typically include sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnerships’ (Altbach et al, 2009).

This was the motivation informing, in 1999, the Bologna Declaration in Europe which sought common European answers to problems across all countries in the Union. A driving force was the need to develop strategies to foster student and worker mobility through the recognition and compatibility of qualifications within and between countries.

There was - and is - a recognition that in spite of their valuable differences, higher education systems faced common internal and external challenges related to the growth and diversification of higher education, the employability of graduates, the shortage of skills in key areas, the expansion of private and transnational education, the need to further encourage staff and student mobility, and, in the longer term, the desire to attract...
the best scholars from around the world in order to be leaders in different areas of research. The reforms required cover all areas of higher education; this was true in Europe, and in many other contexts as well. Tuning Educational Structures (Tuning) was developed as a structure based on working academics, in which they worked together in international but subject based groups to deliberate how the Bologna reforms and aspirations could best be implemented. Tuning may have been initiated as a response to reform in one continent, but the methodology developed has since been used in many countries and continents where reform of higher education was being undertaken, where governments perceived useful a model of reform that encouraged participation from all levels of academics, which provided links with the world of work, and had authenticity in terms of the spirit of education in the country.

Some of the contexts have been challenging in size (e.g. the continents of Europe, Latin America and Africa), others have had challenges of complexity, tradition, lack of resource, language – to mention only a few. In all cases the richness of diversity has been a positive motivation for the work achieved. A spirit of sharing, listening to each other, respect for other ways of doing, and a willingness to understand, informed all Tuning projects large or small and is the underlying reason for their success.

Tuning can no longer be considered to be exclusively European. Successive groups of academics from many countries have enriched what Tuning now offers, which is a universal approach to assist in the implementation of higher educational reform both at the macro-level of entire institutions and at the micro-level of individual disciplines or subject areas. Essentially what has evolved is an approach consisting of a philosophy of respect, as noted above, a methodology and tools, adaptable to different contexts, to (re)design, develop, implement and evaluate study programmes for each cycle (bachelor’s, master’s and doctoral, and sub-cycles within these, such as diplomas and certificates).

2.1 The Tuning Approach

The Tuning approach is adaptable to any context in Higher Education where curriculum reform - in its broadest sense - is undertaken. It has four important elements.

- Firstly, the central participation of a range of actors from the context where the reform is to take place – academics, employers, students, professional bodies, officials – who are engaged in constructive and guided debate on key issues. This inclusive openness is vital if a reform is to be understood, owned and disseminated.

- Secondly, the method is systematic; it proceeds from programme initiation to quality assurance, and can be used for any part of the reforms that an institution or nation is undertaking. Each stage has well established and trialed ‘tools’ to facilitate discussion and action in context.

- Thirdly, respecting the wide diversity of higher education is central to Tuning. Tuning provides a set of tools and the ‘know how’ of using them, but does not seek to restrict the independence of academic and subject specialists, or undermine local and national academic authority. “A national system of education is a living thing, the outcome of forgotten struggles and differences and ‘battles long ago’. It has in it some of the secret workings of national life.” (McQuire 2010) Tuning does not address the systemic considerations of governments, but through it
academics can and do influence government policy making from below, and where working groups of senior officials exist, a Tuning project can effect this from within.

- Fourthly – and not the least important – Tuning helps to develop a common discourse, cross-cultural and cross institutional (even cross departmental) that enables mutually trusting – or at least mutually understood - debate and reflection to take place about the directions of higher education.

The work in the vast majority of projects is undertaken by teams of working academics, based on subject areas or disciplines, drawn from a representative sample of universities in the country(ies) participating. In some contexts, for example in Latin America and Africa, and to a lesser extent in China, there are policy support groups formed from representatives of government and others, who consider how to resolve and implement strategic issues that cannot be resolved by academics alone. The two groups follow parallel paths, although their remit is different; this parallel working has proved to be valuable in providing a forum of communication between different levels of stakeholders in higher education, facilitating greater understanding on both sides.

The stages of work in a project for the academic groups are normally

1. identifying relevant generic and subject specific competences through consultation with a range of key stakeholders, including employers;
2. exchanging good practices in approaches and techniques in teaching, learning and assessment;
3. exploring how a mutually agreed cumulative credit system can facilitate student mobility and the learning accounts of part-time and interrupted students; and
4. exploring how quality assurance and enhancement frameworks and procedures can be used at programme level to further enhance student learning.

The first stage looks at programme design: what content, competences and intended learning outcomes are appropriate at each level. This involves consultation with employers, officials, professional bodies, academics and students – former and current.

The second stage examines how teaching, learning and assessment are best designed and practised in order for students to achieve the intended learning outcomes. This is a stage where academics work together within the project but also within their own institutions, sharing good practices within and across subject boundaries. Students are also useful participants here. An important element at this stage is the ways of assessing student achievement for progression or graduation, in relation to overarching Qualifications Frameworks (QFs) if available, which set out level descriptors for each degree level and (ideally) each level within a degree.

The third stage examines credits, and in particular the relationship between these and student workload. There is no ‘right’ way of allocating credits or calculating workload, but in the interests of national and international student mobility there are now guiding principles that need to be taken into consideration.

Finally, the last stage is quality assurance and enhancement. Quality assurance procedures are guarantors of the standards of the learning environment, while quality enhancement practices are essentially internal and are aimed at the continuous
improvement or evidence based endorsement of what takes place within programmes and institutions.

2.2 Other Tuning Work

Tuning has also provided a valuable platform for developing common reference points, descriptors or standards - as part of conceptual frameworks - at sectoral level as well as subject area or disciplinary level. Frameworks have been developed for the sectors of Engineering, Social Sciences, Humanities and Creative and Performing Arts. The subject areas for which conceptual frameworks have been developed are: chemistry, physics, mathematics, earth sciences, medicine, nursing, history, art history, linguistics, literary studies, law, social work, music, performing arts, creative arts, architecture, education sciences including teacher education, business administration, sociology, different types of engineering and area studies and gender studies (the last two being examples of interdisciplinary studies). All of the work achieved has been supported by wide stakeholder consultation, from employers, graduates, students and academic staff.

Frameworks are relevant for making programmes of study comparable and transparent in national as well as international contexts. They are based on identified and agreed learning outcomes and competences, distinguishing between generic or transversal and subject-specific ones. Tuning has had considerable experience of working with groups of academics and others who wished to align professional practice in universities with Qualifications Frameworks, and in working with the groups who formulate the Frameworks at tertiary level. The conceptual frameworks developed through Tuning are aligned to and compatible with many Qualifications Frameworks in the world.

The Tuning methodology has been of interest in many parts of the world, has been peer reviewed, and is subject to impact research. Projects and feasibility studies have been implemented – in addition to in Europe - in Latin America, Georgia, the Baltic countries, Central Asia, Russia, the United States of America, Africa, Australia, Canada, China, the Middle East and North Africa (MENA). Furthermore, institutions and organizations in other geographical regions have shown interest in using the Tuning methodology; for example, some important higher education institutions in Japan have taken the initiative to study and implement the Tuning approach.

The OECD Secretariat, at the invitation of the Assessment of Higher Education Learning Outcomes (AHELO) Group of international Experts, in 2009 contracted the Tuning Academy to undertake initial development work on learning outcomes to be used for valid and reliable assessment of engineering and economics students from diverse institutions and countries.

Finally, one of the aims of the 12th Five Year Plan is to encourage links and synergies between teaching and research. Tuning projects are perfect networking nuclei, not only with colleagues from different institutions, but with research networks nationally and internationally. The Tuning Academy encourages research through grants and publications, and the extensive ‘Tuning family’ provides a worldwide network. It is this networking aspect that makes participation in Tuning personally valuable for participants as well as being professionally enriching.
Tuning thus offers not only a flexible and very adaptable methodology for assisting educational reform at tertiary level, but has a proven track record of success in diverse situations, all of them complex.

3 Methodology of the Feasibility Study

3.1 Aims of the Feasibility Study

The aims of the Study were to ascertain:

- To what extent a Tuning project might be appropriate within Indian Higher Education Institutions.
- How this might be able to support the strategic objectives of the reform of higher education in India.
- What subject areas should be considered a priority.
- How a Tuning initiative could be implemented and what scale would be appropriate.

In the short time available (9 months), a key objective was to take soundings from as wide a range of stakeholders in India as possible. The target group of the study are policymakers, higher education authorities, university staff and students in India, and wherever possible other stakeholders from business and industry. Therefore a qualitative approach to the study was selected. The two main sources of information were oral testimony obtained through semi-structured interviews with a cross section of informants in a careful selection of institutions/organizations/associations representing all sub-regions; and written information obtained through desk research. After the finalization of this report a general conference was convened in October in Delhi where the results were discussed with representatives of universities, states and Government.

3.2 The Design of the Study

The study included four mutually informing types of investigation.

1. A group of senior academics from the Tuning Academy made a policy visit to India to scope the issues with national authorities.
2. An international team of senior academics experienced in the Tuning approach and in conducting feasibility studies was appointed. Desk research was undertaken to flesh out the main issues in Higher Education in India. This and the results of the policy visit were discussed at a meeting of the whole working team before the regional visits took place.
3. The teams then selected the institutions and bodies they felt best represented the region (within the constraints of time and the budget), visits were made to the regions, where interviews were held with key personnel, resulting in written reports which are fully reproduced in the Appendix 1.
4. A draft report was compiled based on all of the collected documentation and the findings were discussed at a joint meeting when all of the data collection had been completed.
5. A final seminar was held in September in India where representatives of the Indian academic community from universities, State and national Government discussed the recommendations.

3.3 Sampling

The study was based on an opportunistic sample, the size of which was determined by funding and time. However, the background research which was done has allowed the findings of the teams to be contextualized in a broader framework.

It was agreed to sample within the five sub-regions identified by the University Grants Commission of India (UGC). It was intended that the study would be representative in national terms, and would include more and less economically advantaged sub-regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>States Sampled in the Feasibility Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>Andhra Pradesh, Telangana, Kerala, Karnataka, Tamil Nadu, Lakshadweep and Pondicherry.</td>
</tr>
<tr>
<td>North</td>
<td>Haryana, Himachal Pradesh, Jammu &amp; Kashmir, Punjab, Uttar Pradesh, Uttarakhand, Chandigarh and Delhi.</td>
</tr>
<tr>
<td>East</td>
<td>Bihar, West Bengal, Orissa, Jharkhand, Assam, Manipur, Sikkim, Meghalaya, Nagaland, Tripura, Mizoram, Andaman &amp; Nicobar Islands.</td>
</tr>
<tr>
<td>Central</td>
<td>Madhya Pradesh, Rajasthan, Chhattisgarh.</td>
</tr>
<tr>
<td>West</td>
<td>Gujarat, Goa, Maharashtra, Daman &amp; Diu and Dadra &amp; Nagar Haveli.</td>
</tr>
</tbody>
</table>

Map of India Showing the States visited within the regions
Similarly, the institutions to be visited were selected with a view to achieving as fair a representation of distribution, type and size as possible within the constraints of the budget and therefore included all of the different types of Higher Education institutions. In addition, in all regions there were also interviews with non-university bodies and business organizations.
<table>
<thead>
<tr>
<th>Type of HEI Region</th>
<th>State University</th>
<th>Affiliated Institute/College</th>
<th>IITs</th>
<th>Open University</th>
<th>Central University</th>
<th>Technological University</th>
<th>Private university</th>
<th>Organizations visited</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td></td>
<td></td>
<td>IIT, Delhi</td>
<td>IGNOU (Central)</td>
<td>Uni of Delhi, Jawaharlal Nehru Uni, Delhi</td>
<td></td>
<td>UGC Gov.India Planning Commission, AICTE, FICCI</td>
<td></td>
</tr>
</tbody>
</table>
| West              | Munich Uni  
University of Pune  
Veer Narmad South Gujarat University (VNSGU), Surat |                             | IIT Mumbai |               |                   |                       |                   | FICCI - Mumbai Western Region Council Chamber of Commerce, Surat |
| East              | University of Calcutta  
Jadavpur Uni  
Ranchi Uni  
Vivek Bhave University | Tecno India, Kolkata | IIT, Bangalore  
IIITM, Bangalore | Dr BR AmbedkarHyderabad (State) | Jawaharlal Nehru Tech Uni, Hyderabad  
Acharya NG Ranga Agric Uni, Hyderabad | Heritage Inst of Tech, Kolkata | UGC S.E, FICCI, FAPCCI, NAAC |
| South             |                 |                             | IIT, Bangalore  
IIITM, Bangalore | Dr BR AmbedkarHyderabad (State) | Jawaharlal Nehru Tech Uni, Hyderabad  
Acharya NG Ranga Agric Uni, Hyderabad | Jagran Lakecity Uni, Bhopal  
L.I.S. University Gurukul Marg, Jaipur | NAAC, FICCI, Madhya Pradesh Private Universities Regulatory Commission |
| Central           | Barkatullah Uni, Bhopal  
University of Rajasthan | National Institute of Ayurveda, Jaipur | Madhya Pradesh Bhoj Open Uni, Bhopal State | Rajiv Gandhi Tech Uni, Bhopal | Jagran Lakecity Uni, Bhopal  
L.I.S. University Gurukul Marg, Jaipur | Jagran Lakecity Uni, Bhopal  
L.I.S. University Gurukul Marg, Jaipur | NAAC, FICCI, Madhya Pradesh Private Universities Regulatory Commission |

Higher education institutions and official organizations visited by the teams.
4 The Regions of India

4.1 North Region

North India comprises the following states: Delhi, Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, and Chandigarh. The visits concentrated on Delhi, since this team were responsible for interviewing national level personnel as well as university staff.

There are 78 universities in the region, of which 12 are central universities. North India has several renowned universities and centres of academic excellence. Because the capital - New Delhi - is located in the region, people from all over India come here for economic and educational purposes. Hence, the higher educational population is multicultural.

Since Delhi is the national capital, all major national bodies concerned with higher education are located there; therefore it was possible to interview senior staff in such organizations as well as those in different types of universities.

The Visit Timetable: 2nd to 6th June, 2014

<table>
<thead>
<tr>
<th>Number of HE Institutions</th>
<th>Institution/organizations visited</th>
<th>Contacts</th>
<th>Salient facts/opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>University Grants Commission (UGC)</td>
<td>Mr Manju Singh – Joint Secretary</td>
<td>Support for Concept; concern about role of colleges in a project</td>
</tr>
<tr>
<td></td>
<td>Planning Commission (Indian Government)</td>
<td>Dr Pawan Agarwal – Adviser</td>
<td>Support for concept; need champions at levels of both management and action; restrictions on budget resources</td>
</tr>
<tr>
<td></td>
<td>Association of Indian Universities (AIU)</td>
<td>Prof. D.S. Chauchan, Secretary General; Dr. Shyam Narain, Additional Secretary; Mr. Sambhav Srivatsav</td>
<td>Tuning fits well into Indian processes of reform; Will need ministerial blessing and management committee representing all major stakeholders</td>
</tr>
<tr>
<td></td>
<td>All India Council of Technical Education (AICTE)</td>
<td>Prof. S. S. Mantha – Chairman</td>
<td>Strong interest in Tuning; noted links with developing NQF; needs strong undergraduate component</td>
</tr>
<tr>
<td></td>
<td>(FICCI) – Delhi strong and</td>
<td>Mrs Shobha Mishra Ghosh, Senior Director; Mr Nikhil</td>
<td>Supported Tuning; beware</td>
</tr>
</tbody>
</table>
representative employer organization with active research base in education;

Indian Institute of Technology Delhi (IIT Delhi)
Institution of national importance

University of Delhi
Central University

Jawaharlal Nehru University
Central University

Indira Gandhi National Open University (IGNOU)
Central University; leading OU in India

Sharma, Assistant Director Education

Prof. Mukesh Khare, Dean, Alumni affairs & International Programmes;
Prof. Suneet Tuli, Dean, Research & Development

Prof. K. Sreenivas, Dean, International Relations

Prof. Sudhir K. Sopory, Vice-Chancellor; Prof. Varun Sahni, Chief Advisor International Collaboration

Prof. M. Aslam, Vice - Chancellor; Dr P. Prakash, Pro Vice –Chancellor; and the Deans of the 21 Schools.

bureaucracy; be aware of great disparities in system of HE

Tuning timely; seen as supportive of reform; positive for staff networking

Tuning timely; supportive of reform; national level project might be a challenge

Tuning timely, and providing useful methodology and tools; some caveat about the possible dangers of consensus resulting in deterioration of standards in some HEIs

Positive about Tuning; a project should include Distance Education element.

4.2 Central Region

The central region comprises three states, Chhattisgarh, Madhya Pradesh and Rajasthan. The region has a total of 78 universities.

The region has a mixed climate zone. The concentration of major higher education institutes are in Madhya Pradesh, as the other two states have arid climatic conditions. Given the poor conditions, it is unsurprising that the states of this region have a literacy rate well below the national average.

Nevertheless, the central region is home to some of the premium institutes of India, perhaps reflecting national efforts to support the region. Visits were made to a range of university types and to government and non-government organizations.

The Visit Timetable: 21st to 26th April 2014

<table>
<thead>
<tr>
<th>Number of HE Institutions</th>
<th>Institution/organizations visited</th>
<th>Contacts</th>
<th>Salient facts/opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 78 universities or IITs and 5018 Colleges | Barkatullah University, Bhopal  
State Public University | Vice Chancellor  
Prof. (Dr) Nisha Dube;  
Visit organised by Prof. D.C. Gupta, Rector | Reform perceived as Top-down; they see that students have the responsibility for acquiring work related or generic skills; the paucity of human and material resources is perceived as a barrier to innovation |
| Rajiv Gandhi Technical University, Bhopal  
State Public; established to restore technical HE in MP; has 200+ affiliated engineering colleagues | Prof. Piyush Trivedi, Vice-Chancellor; Assistant: Mr. Naj Sanpeni; Deputy Registrar Dr Sanjeev Sharma, Deputy Registrar; Dr Nanak Santani, Assistant to Hon’ble Vice Chancellor | Has virtual lessons shared with 80+ colleges; moving to be Centre of Excellence in technical education in region. |
| Madhya Pradesh Bhoj (Open) University, Bhopal  
State University Special training for remote and less developed rural and tribal areas | Prof. Tariq Zafar, Vice-Chancellor  
Dr. Khan, Secretary– | Aware of reform but waiting for advice from above, in this case IGNOU; very poor in resources |
| Jagran Lakecity University, Bhopal  
Private | Prof. Anoop Swarup, Vice Chancellor | Very interested in Tuning; already involved in staff development assisted by a UK university; focus on employability part of mission. |
<p>| Madhya Pradesh Private Universities Regulatory Commission | Dr. Akhilesh Kumar Pandey, Chairman | Supported Tuning; beware bureaucracy; be aware of great disparities in system of HE |
|  |  | Stressed the employability orientation of private higher education; sector expanding rapidly; in general in HE curriculum needs reform in relation to employability; they have active and real interaction with employers |</p>
<table>
<thead>
<tr>
<th>Institution</th>
<th>Director/Chancellor</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| National Institute of Ayurveda, Jaipur  
College affiliated to the University of Jodhpur | Prof. Ajay Kumar Sharma, Director | Institution desiring university status; unenterprising, following strictly the guidance from Jodhpur, the central board of Ayurvedic medicine and the government regs. Complained of resource scarcity and slow bureaucracy. |
| University of Rajasthan, Jaipur  
State University | Dr. Asha Pande | Poor infrastructure, lack of teaching staff and lengthy and slow bureaucracy; agree with need for reform but perceived problems, e.g. staffing; follow ‘Delhi’ in matters of change (except credits!); |
| I.I.S. University Gurukul Marg, Jaipur  
Private, deemed university: upgraded to university from college in 2013 | Dr Ashok Gupta, Vice-Chancellor; Dr Raakhi Gupta, Rector & Registrar; Dr Subhash Ganj, Dean & Director CRIT; Dr. Rimika Singhvi, Head, Department of English; Dr. Sharad Rathore, Head, Department of History | Interested to being involved with a Tuning project. |
| NAAC (local office) | Prof. Kale (Former Vice-chancellor, central University of Gujarat  
Currently at JNU (Delhi)  
Assessor of NAAC visiting I.I.S. University Gurukul Marg) | Future is in the private universities. Government alone cannot solve the “massification” of higher education. Private are until now more professional oriented and they should also take humanities, and care about the poor population |
| FICCI (local office) | Gyan Prakash, Director  
Plus Industry people invited by the Director at FICCI in the evening: Rohit Kumar Vohra, Dr. Abhinav Dinesh, Anand Poddar; and Ajay K. Gupta | Highly critical of many aspects of higher education: system rigid, slow, beaurocratic; pace of reform slow; difficulty of contact within system for employers; private institutions quite different and the way forward. |
Diversity of India in levels organisation is a problem; they would prefer to go for pilot and are ready for involvement in it. The availability and reliability of resources for a potential Tuning project is a challenge; Willing to get involved as long as it is incorporated in their own curriculum at their own scale.

4.3 East Region

The states included in the East and North East Region are Arunachal Pradesh, Assam, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Orisha, Sikkim, Tripura, and West Bengal. Three different types of Higher Education Institutions were visited: State, Private and one affiliated College.

Visit Timetable: 26th - 30th May, 2014

<table>
<thead>
<tr>
<th>Number of HE Institutions</th>
<th>Institution/organizations visited</th>
<th>Contacts</th>
<th>Salient facts/opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td>153</td>
<td>University of Calcutta</td>
<td>Pro-Vice-Chancellor for Academic Affairs; Prof. Dhurubijoy Chattopadhyay, Pro- Vice – Chancellor (Business Affairs &amp; Finance); Prof. Dr. Sonali Chakravati Banerjee, Registrar; Prof. Basab Chaudhuri; other Heads of Departments and Professors</td>
<td>There was a general positive perspective of the Tuning Project possibilities and role in the development of Indian’s Higher Education. They were interested in the dimension of recognition of degrees in other regions of the world, in learning and in sharing with others.</td>
</tr>
<tr>
<td></td>
<td>One of India’s oldest State Universities, founded in 1857</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jadavpur University West Bengal State University</td>
<td>Prof. Asis Magumdar, Dean, Faculty of Interdisciplinary Studies</td>
<td>Interest in Tuning; an important interest towards interdisciplinarity;</td>
</tr>
<tr>
<td></td>
<td>Heritage Institute of Technology Private Institution affiliated to the West Bengal University of Technology</td>
<td>Professor Pranay Chauduri, Principal; Dr S. Biswas, Deputy Director; Dr Sobhen Ray, Registrar. Another 6 members of the Faculty.</td>
<td>Interested in Tuning: international relevance for them; already familiar with competence approach through, among other things, their connections through Engineering.</td>
</tr>
<tr>
<td></td>
<td>Techno India Salt Lake, Kolkata Private college affiliated to University of West Bengal specializing in engineering (mainly); accredited by AICTE</td>
<td>Goutam Roy Chowdhury, Chairman; Ashoke Ranjan Thakur, VC; Ishan Ghosh, Sujoy Biswas, Chief Operating Officer, Suman Chatterjee</td>
<td>Very entrepreneurial. Techno India Group is a contrasting institution worth bringing into the Tuning in order to get a completely different perspective</td>
</tr>
<tr>
<td></td>
<td>Ranchi University State University Traditional general university.</td>
<td>Prof. Dr. L.N. Bhagat, Vice-Chancellor; Dr Amar Kumar Choudhary, Registrar; and more than 40 academics</td>
<td>Very interested in the Tuning proposals especially as it resonates with their desire for wider contacts.</td>
</tr>
<tr>
<td></td>
<td>Vinoba Bhave University State University</td>
<td>Prof Gurbir Singh, Vice Chancellor; Dr Manoranjan Prasad Sinha, Pro- Vice Chancellor; Dr. S. P. Sinha,</td>
<td>Extremely positive encounter with substantial group. Much interest expressed in Tuning, what it could mean to them in</td>
</tr>
</tbody>
</table>
Registrar; Prof M. K. Singh, Abhay Kumar Sinha, D.N. Sadhu, and 30 other academics of VBU.

terms of learning and possibilities to research and internationalization.

Many of the people interviewed would very much welcome change in a systematic manner coming from the Ministry or from other higher authorities. Some movement can be perceived towards modernisation and those interviewed clearly thought that a Tuning Project could be able to make one of their aspirations a reality.

4.4 West Region

The Western region comprises the states of Maharashtra, Gujarat and Goa. These states are culturally varied and distinct. The average literacy rate of West India is around 76%, higher than the national average, and the region is economically more prosperous than some other parts of the country.

Western India has some prominent educational institutes. Among a total of more than 80 universities, there are 2 Central, 50 State, 23 Deemed, 2 Open, and 6 Institutions of national importance. 25 of these are private.

The team visited State universities and an IIT.

Visit Timetable: 5th to 9th May 2014

<table>
<thead>
<tr>
<th>Number of HE Institutions</th>
<th>Institution/organizations visited</th>
<th>Contacts</th>
<th>Salient facts/opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>Mumbai University</td>
<td>Dr. Naresh Chandra, Pro Vice Chancellor</td>
<td>Very positive re Tuning, but not particularly interested in competence based approaches; see skills components as an add-on, if anything; oriented towards research;</td>
</tr>
<tr>
<td></td>
<td>One of the oldest state universities in India, established in 1857</td>
<td>Vishal Ganju, Deputy Director</td>
<td>Expressed active interest in Tuning but suggested that participation be discussed with Head Office in Delhi.</td>
</tr>
<tr>
<td></td>
<td>FICCI, Western Region Council – Mumbai</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IIT Mumbai</td>
<td>Prof. Devang V. Khakhar, Director; Prof. Rajiv O. Dusane, Dean, International Relations, and Professor of Metallurgical Engineering &amp; Materials Science; Prof. Narayan Rangaraj, Dean of Academic Affairs; and Prof. Rajiv O. Dusane.</td>
<td>Very willing to be involved with Tuning. Their attitude is that what they do now (very knowledge based) guarantees employability for their students. Open minded, however.</td>
</tr>
<tr>
<td></td>
<td>University of Pune State University</td>
<td>Prof. (Dr.) W. N. Gade, Vice-Chancellor; Prof. Dr.</td>
<td>VC expressed explicit interest in being involved in a possible</td>
</tr>
</tbody>
</table>
Vijay Khare, director: International Centre and Professor in Defence and Strategic Studies

Veer Narmad South Gujarat University (VNSGU), Surat State University

Dr. Dakshesh R. Thakar, Vice-Chancellor; Professor. Dr. Apurva A. Desai, Professor and Dean of Computer Science; Majority of deans of Faculties

Tuning India feasibility study was received positively. It is recognized that a gap exists between the educational offer and the needs of society and that this gap is widening. There seems to be willingness to play an active role in a Tuning project.

Chamber of Commerce, Surat

Dr. Apurva. A. Desai

Employers eager to cooperate with the educational sector. Higher education needs to adapt; need for graduates with (more) soft skills. The need of Tuning project was endorsed- it could stimulate the dialogue between universities and the world of employment.

4.5 South Region

South India comprises the four states of Tamil Nadu, Andhra Pradesh (since the feasibility study divided into two), Karnataka, and Kerala, as well as the two union territories of Puducherry and Lakshadweep.

The south is prosperous compared with other regions in India. However, while services and industry are together responsible for approximately 75% of income in the south, over 50% of working people are employed in agriculture.

The higher education system is well developed and has high quality institutions of all types. Most of the universities are general, with the majority being state public. All states have specialist institutions, some of world class. A characteristic of the higher education profile is the large number of small affiliated or stand-alone colleges (enrolments of 4 to 500), the majority private unaided: the average size for India as a whole is 700+. There are a total of 168 universities in the southern region.

Visits were made to a range of institutional types in Andhra Pradesh and Karnataka, as well as governmental and industrial organizations.

Visit Timetable: 28th April to 3rd May 2014
<table>
<thead>
<tr>
<th>Institutions</th>
<th>Visited</th>
<th>Interest in Tuning, particularly with regard to enhancing inward student mobility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jawaharlal Nehru Technological University (JNTU)</td>
<td>Professor Rameshwar Rao, Vice – Chancellor</td>
<td>the university has no previous international collaboration; most eager to start one Tuning could help their staff to include skills and competences in their curricula;</td>
</tr>
<tr>
<td>Dr. B.R. Ambedkar Open University State University. Fully distance learning mode</td>
<td>Sri Ajay Misra, I.A.S, Vice-Chancellor (FAC); Prof. Ghanta Chakrapani, Director, Centre for State Training and Development (CSTD); Prof. M. Shoukat Hayat, Director, Centre for Internal Quality Assurance (CIQA); Prof.N. Venkatanarayana, Director (Academic); Dr. G. Laxma Reddy, Director (Student- Services); Heads of Departments</td>
<td>There is great interest to collaborate; employability is a great concern, the priority of the specific subject areas</td>
</tr>
<tr>
<td>Federation of Indian Chambers of Commerce and Industry (FICCI), Andhra Pradesh State Council</td>
<td>Akilash Mahurkar, Director; Ravi Kiran, Assistant Director</td>
<td>Consider future consultation with the Indian Council for Agricultural Education; there is great interest and potential for collaboration; the VC was fully aware about Tuning, admiring the global distribution of Tuning actions. The university could be the coordinating university for agriculture in case of implementing a Tuning India pilot study.</td>
</tr>
<tr>
<td>Acharya N. G. Ranga Agricultural University</td>
<td>Dr A. Padma Raju, Vice-Chancellor; Dr T.V.K. Singh, Dean of Agriculture; Dr T.V. Satyanarayana, Dean, Faculty of Agricultural Engineering &amp; Technology; Many Academic, staff and students</td>
<td>Very interested in collaboration.</td>
</tr>
<tr>
<td>Osmania Medical College Affiliated to NTR University of Health Sciences, previously affiliated to the Osmania University of Hyderabad. The college is recognized by Medical Council of India.</td>
<td>Dr. M Malleboyina Ramani, Dean, OMC, Professor &amp; HOD, Department of Pathology, and 38 other academics and graduate students</td>
<td>There was a consensus among</td>
</tr>
</tbody>
</table>
Pradesh Chamber of Commerce & Industry (FAPCCI)
Occasion: productive evening gathering of stakeholders, academic owners/managers of private HEIs, entrepreneurs, CEOs of IT companies, researchers

General;
Mr Shiv Kumar Rungat, Sr. Vice President; Mr R. KULKARNI, Joint Director, Head-Membership Wing; Mr Kiran K Sharma, Principal Scientists, Global Theme – Biotechnology; Head, Agri-Business Incubator (ABI-ICRISAT); Director, Translational Platform for Transgenic Crops (PTTC); Mr Mohamed Ansari, Managing Director & CEO, Stratageeks CourseCue, Educational Portal, Co-Founder; Mr Sanjay Gadhalay, Managing Consultant & CEO, SGC Enterprises; Associate Director – CAS, Indian School of Business; Founder CEO, Center for Climate Change and Environmental Advisory; Dr A. Ramachandra Aryasri, Director, School of Management Studies, JNTU.

It is student-centred HEI, with innovative curriculum and diplomas, state-of-the-art infrastructure and facilities, with clear visionary leadership. There is serious potential to initiate collaboration between IIIT-B and Tuning.

International Institute of Information Technology – Bangalore
Institute of national importance

Prof. Dr. Balaji Parthasarathy, ICICI Professor and Dean; Three PhD students

Although that the IIMB has a wide range of international collaboration there is interest to explore the possibility for further collaboration.

Indian Institute of Management Bangalore
IIMB is very distinguished institute for management studies all over India with international recognition and wide collaboration. Excellent learning facilities

Dr. Rahul De, Hewlett-Packard Chair Professor

NAAC is ready, with financial support, to play a central role in Tuning future projects. Possible services that would be provided, (beside the wide

National Assessment and Accreditation Council (NAAC) offices
This is the Head Office of

Prof. Dr. A.N. Rai, Director; Dr. Jagannath Patil, Deputy Adviser

the attendees that the themes and the specific subject areas of high priority for India and to be approached by Tuning are:

a) Management,
b) Education,
c) Agriculture, and
d) Engineering (ALL the branches/specialties of engineering)
experience at NAAC regarding the Indian HEIs and connections with many Indian scholars), staff, space office, etc...

- India will be formidable testing machinery for the adaptability of Tuning to diversity, a constitutional component of Tuning. There is interest, enthusiasm and good potential at the visited universities, schools and the agencies (especially NAAC, where they are expecting a CENTRAL role) to collaborate.

5 Results of the Feasibility Study

This section summarizes the results of information from the interviews and the desk research which accompanied the different stages of the study. In the interests of transparency the reports of the research teams in India are included in Appendices I to V pages 61 to 149, as they were written. This was agreed with the teams.

5.1 Higher Education in India: an Overview

In a brief report of this nature no pretence is made to capture all of the richness and complexity of the Indian system of Higher Education. Nor has it been the intention to focus on any flaws in a system that has as much to commend as to criticize.

What follows is an extraction of what may be relevant to the proposal in hand, without eliminating counter factors. It is similar to standing on a mountain overlooking a rich landscape and pointing out a road through it to others: the broad features are understood but do not have to be described in detail. There is a very complete archive of resources available in India of both official and academic publications that can provide in-depth information. A selection of what has been used is provided in the references at the end of this report.

India has other characteristics it shares with many. The economic boom slowed from a growth rate of 10.3% in 2010 to 4.7% in 2013 – although is now seeing cautious recovery to 5.0% in 2014 (World Bank 2014) and it is argued that the country will not be able to sustain its growth momentum or maintain competitiveness unless higher education is reformed. In addition, the demand for higher education continues to outpace supply because of the growing population of young people, gains in school education, the growing middle class and their rising aspirations which do not include blue collar jobs for their children.

However, India has an advantage not shared by many countries. It is expected to have the largest workforce in the world by 2025, with around 2 billion English-speaking people by the end of 2020. Within the same period, India has the potential to have a surplus of around 47 million skilled workers through its skill development programme, while countries across the world are expected to witness a shortage of around 56.5 million skilled workers (Ernst and Young and FICCI, 2013). Not all of these skilled workers will be graduates, but there will be a demand for graduate level skilled workers around the globe by the mid 2020s, which India could be in a position to provide.
In India, as in most countries in the world, higher education has been the focus of attention in recent years. When an economy enters a downturn, the education system in general is blamed for skill shortages, and the higher education system suffers more than its share of this serious criticism, whether this is in fact merited or not.

The total enrolment in higher education has increased from 0.21 million in 1950-51 to about 22 million in 2011-12, about 10% to 15% of the total university age population. The massification of higher education aligned to a leap into high technology industry always brings in its train problems of fit and quality. As Prof. AK Singh said (2013) ‘Rising unemployment among well-qualified youth population is a big concern and indicates three possible reasons; a) Demand-Supply Mismatch b) Expectation Mismatch and c)Skill Mismatch. This problem can be solved by the players within the ecosystem, i.e. academia and industry. For meeting the talent needs of the Industry in coming days, combined efforts need to be made by all the actors of the system. With Industry’s increasing demand for ‘skilled’ rather than ‘qualified’ talent, it is important to understand the needs of demand side better.’ In India for some disciplines the skills gap is indeed large – 75% of IT graduates are deemed ‘unemployable’, 55% in manufacturing, 55% in healthcare and 50% in banking and insurance. (Ernst Young & FICCI 2013)

The National Association of Software and Services Companies maintains that of around three million graduates each year less than a third of the graduates of engineering colleges and only 10% to 15% of regular graduates are employable (NASSCOM, 2014).

Despite an increase in education levels, one in three graduates up to the age of 29 was unemployed in 2013 (against a background of 13.3% unemployed for all ages 15-29 according to the Labour Ministry’s Youth Employment-Unemployment Scenario 2012-13 released last November (Labour Bureau, Chandigarh, 2013).

Nevertheless, it is widely believed that technological advances and the demographic dividend of a young population provide India with a window of opportunity to productively engage its huge pool of human resources, and become a leader in both the rapidly expanding sectors of services and highly skilled manufacturing.

India’s population in 2014 is estimated at 1.27 billion, of whom 50% are under the age of 25. The last census data (2013) showed that India’s working age population (15-64 years) is now 63.4% of the total.

Looking to the future, India will have a younger working population than any other country for some time to come. Such a workforce could attract to India huge economic benefits. On the other hand, an under-skilled and under-employed generation would pose a threat to the future stability of a great country.

5.2 Government Policy

India is characterized by openness in the availability of public documents on issues in higher education. The issues which appear in policy documents are changing. There are more frequent concerns expressed implicitly or explicitly in all Indian policy documents about quality. In addition, national level policies are beginning to focus on skills and competence development. This large education system is developing international competitiveness, and is welcoming partners and innovative initiatives from different stakeholders for faster and more inclusive improvement.
Since 1951 the Government of India has employed a cycle of Five Year Plans to plan economic and social policy. The 12th Five Year Plan (2013-17) addresses three overarching challenges for higher education: excellence, equity and expansion.

The previous Five Year Plan (2007-12) focussed on similar areas of improvement for higher education, and there have always been concerns and policies to address both access and quality; expansion, increasingly rapid in the past 10 years, is an increasing concern.

The 12th Five Year Plan is different in that it has taken a holistic approach. It contains within it the Higher Education mission, Rashtriya Uchchatar Shiksha Abhiyan (RUSA), which provides a coherent framework for reform in Higher Education. The RUSA proposal was approved by the Cabinet Committee on Economic Affairs (CCEA) in 2013, and aspects of it are already being implemented. When fully implemented, the greatest reform in the governance and funding of state universities will come through RUSA. (Heslop 2014)

RUSA aims to enhance the quality of higher education in India by streamlining the system root and branch, e.g. in governance at national, state and institutional levels; in structural reform e.g. restricting the number of colleges that can be affiliated to any one university, and in ensuring that existing norms/standards are adhered to; in compulsory accreditation for quality assurance for all higher education institutions; in a new emphasis on research capability development for both faculty and students; and in the reform of teaching, learning and assessment.

RUSA will also strive to correct existing regional imbalances relating to access to higher education facilities by setting up quality institutes in rural as well as semi urban areas, thus making access to good quality academic institutes easier for students from rural areas. Other targets which are relevant to the work that Tuning does, are plans to support state autonomy with a strengthened accreditation system; to improve the quality of teaching; to double the number of faculty and fund faculty improvement; to provide significant investment in ICT for both infrastructure and curriculum development; and to move to a credit-based and internationally recognised assessment system. Action is being taken on these issues as the minutes of the Planning Advisory Board show (PAB Minutes, May 2014).

5.3 Size of the sector

One major challenge to any reform is the size of the sector. In India this is impressive. The number of Universities has increased from 27 in 1950 to 700+ in 2014, and the number of colleges has also increased exponentially from 578 in 1950 to over 35,000 in 2014, about half of them private or private aided, and many of them relatively small. However, not only have numbers increased, but as a result of funding mechanisms and the need to provide a range of institutional types the complexity of the sector has also increased. This is discussed below under the structure of higher education (5.4, page 28).

The private sector has expanded greatly. In the field of professional education in particular, the size of the private sector is formidable. As long ago as 2003, the figures for 19 major Indian states from the Medical Council of India (MCI) and the All India Council for Technical Education (AICTE), showed that of 198 Medical Colleges 44% were private, and this was true of 1102 Engineering Colleges, where 92% were private; similar conditions prevailed in business management. Overall, the number of private HEIs
increased by more than 60% during the five year period between 2007 and 2012. (CII-Deloitte ASHE, 2013) As a result, the share of the private sector in terms of total HEIs (this includes affiliated colleges) had increased to about 64% by 2012. In some instances, competition between public and private institutions actually began to produce improvements on both sides (MHRD statistics from various sources).

Funding for higher education has been split in the past between central government and the states. Relatively low expenditure in public higher education by both of these is one of the factors that has led to the growth of private sector institutions.

By the beginning of the 12th Five Year Plan higher education in India had reached a point where reform was now urgent. This urgency has been responded to positively by the Government: it has increased its planned expenditure on higher education by 37%, from INR195.1 billion in 2011-12 to INR 267.5 billion in 2013-14. The budget suggested by RUSA during the Twelfth and Thirteenth Five Year Plans is INR 980 billion, of which the Central government will spend INR700 billion, the rest being raised by proportionate funding from the States.

80 additional state universities are expected to be created under RUSA during the 12th Plan, 45 by the policy of converting to university status autonomous colleges and 35 through the conversion to universities of clusters of colleges. Around 100 new colleges including various technical and professional colleges will be established, and 54 current colleges will be converted to degree colleges. 388 new colleges and 278 new universities are expected to be created by the end of the 13th Plan period, 2018-2023. In this time frame 266 colleges are expected to be converted into degree colleges, 20,000 new faculty positions being created through this. Infrastructure-related grants are expected to be offered to 150 universities and 3,500 colleges. This process has already begun.

Under the RUSA proposal the UGC will be reformed as the Higher Education Commission and its grant-giving authority will be changed. The Commission would continue to fund directly the central universities and the deemed universities, but funds to States for HE would be directly disbursed from the Central Government. This process commenced in 2014 (Minutes of the PAB, May 2014).

Direct funding and greater autonomy for State governments with regard to Higher Education will be conditional on a number of stipulations. First, all states would need to create a State Higher Education Council (SHEC), responsible for planning and through which bids for funding would be made to the central government via the PAB. Prior to the launch of RUSA only eight states had these (Kerala, Karnataka, Andhra Pradesh, West Bengal, Uttar Pradesh, Tamil Nadu, Maharashtra and Gujarat). Since the launch of RUSA fifteen SHECs have been established (Assam, Bihar, Chattishgarh, Haryana, Himachal Pradesh, Jammu and & Kashmir, Manipur, Odisha, Punjab, Nagaland, Manipur, Mizoram, Tripura, Uttarkhand and the Andaman & Nicobar Islands).

Secondly, states will be obliged to remove the ban on filling staff vacancies. Thirdly, states would need to implement compulsory accreditation and introduce affiliation reforms, the latter including a proposed cap of 100 on the number of affiliated colleges that any university can have. Currently some universities have hundreds of affiliated colleges. State universities will also have to initiate a choice-based credit system, introduce a semester system, institute curriculum reform and procedures for regular curriculum review, as well
as making the admissions processes more transparent. It is in these latter reforms that the Tuning methodology could be a valuable tool.

Good quality academic staff are critical to the successful functioning of higher education. In India although there has been consistent growth in the numbers of academic staff in higher education, it has not matched the growth in student numbers. While the latter have increased more than a hundredfold between 1950-51 and 2011-12, the number of teachers has increased by under forty fold, which implies the student-teacher ratios have risen considerably over this period.

While proactive policy and funding are essential to the development of a sound system, the role of the academics in effecting reforms successfully should not be ignored. This is further discussed below.

### 5.4 The Structure of Higher Education

The overall structure of education in India is represented in the diagram below (taken from the visit report to North India). This study is only concerned with the university level sector of education.

Stages of Education in India, and an indication regarding corresponding age group of students for each stage, are shown in the table below:
Within this overall structure, the current structure of higher education is complex, and as noted above, the funding is shared between Government, the states, and increasingly, particularly for undergraduate education, the private sector.

Universities can be categorized by the level of government responsible for their oversight and regulation, either Central or State.

For universities under the purview of the Central Government, a further division into five subcategories can be made. First are the Central Universities. These are the universities specifically created by the Centre, of which there are at least one per state. Second, if an institution essentially behaves like a university or becomes a university but wasn’t specifically created, the Central Government can, on the advice of the University Grants Committee, declare that institution to be a “deemed university”. As such, the institution is then considered to have all the powers and responsibilities of a Central University. Currently, 110 institutions have become deemed universities – 39 are government created and supported institutions, and 91 are private, not-for-profit institutions. India also has 40 Institutes of National Importance. The IITs (Indian Institutes of Technology) were created specifically by national legislation. India is currently in the process of creating another 20 such institutes that will be focused on information technology, the IIITs (Indian Institutes of Information Technology). Finally, the Central Government has identified and oversees another 27 institutions that can award degrees but do not fit any of the other categories.

Universities can also be under the purview of the State Governments. Here there are three categories. State Universities are created by a State Government under appropriate legislation. Additionally, four state universities have been created by specific legislation for that institution. While a State University is chartered under legislation that allows for the creation of multiple universities, a State Legislated university is specifically created under law. It parallels the Central University/Institute of National Importance arrangement for the Centre. While State Universities are created, managed, and funded by a State Government, a university can also be created as a separate private, not-for-profit institution that is regulated by the state, of which there are currently 173 (at the time of writing) (Stolerick 2014).

<table>
<thead>
<tr>
<th>Governance</th>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>Central University</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Government funded Deemed University</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Private Deemed University</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Institutes of National Importance (IITs) (funded directly by central government) President Modi has just announced that 12 more will be established.</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Other University Level Institutions</td>
<td>27</td>
</tr>
<tr>
<td>State</td>
<td>State Universities</td>
<td>308</td>
</tr>
<tr>
<td></td>
<td>State Legislated Universities</td>
<td>4</td>
</tr>
</tbody>
</table>
Most undergraduate education, however, takes place in colleges, the majority of which are affiliated to universities. The university designs and mandates the curriculum, oversees the quality of teaching, learning and assessment, and provides the examinations. The State universities depend on the affiliation fees to supplement their funding. However, in many cases there are so many colleges (in extreme cases universities may have up to 1000 affiliated colleges) that the burden of administration distracts the universities from their research priorities, and the numbers of administrative and academic staff needed to manage the college work accounts for most of the fees gained. This situation is a weakness that RUSA intends to address.

“Curriculum Design and Development is a complex process involving a number of steps and collaboration between academics and others. It is a process of developing appropriate needs-based curricula in consultation with expert groups, based on the feedback from stakeholders, resulting in the development of relevant programmes with flexibility, to suit the professional and personal needs of the students and realization of core values of a nation. The key aspect also considers the good practices of the institution in initiating a range of programme options and courses that are relevant to the local needs and in tune with the emerging national and global trends.” (NAAC-manual). One might add to this that those teaching on programmes must be centrally engaged in the curriculum development process, whether at the level of simply understanding the process or of fully participating in the development.

5.5  **Open and Distance Learning**

One answer to problems associated with access and equity has been the provision of Open Universities (OUs). Enrolment in distance education has grown at an annual rate of approximately 11% in the last three decades, and now Distance Education provides facilities for about 25% of the total student numbers.

There are 13 State OUs in India, all single mode institutions, i.e. they provide education only in the distance mode. They provide education for 25% of all the distance learning students in India. Some of these numbers are very large, but published documents present mixed and sometimes confusing statistics. The Dr B R Ambedkar OU in Hyderabad stated in interview to have over a million students enrolled, and the Indira Gandhi National Open University (IGNOU) over 3 million students. In addition, almost 200 institutes are approved to provide distance learning programmes according to the Distance Education Council. These are located in the many universities that now offer distance mode study as part of their provision, and account for 58% of all distance learning students. For example, the University of Delhi has 132,435 regular students and 261,169 distance or blended learning students.

The largest OU in India is the Indira Gandhi National Open University (IGNOU), a central university located in Delhi, founded in 1985. Today, it accounts for almost 17% of all distance learning students in India. It also enrolls students from other countries through 21 Schools of Studies and a network of 67 regional centres, around 2,667 learner support centres and 29 overseas partner institutions. IGNOU has been (and continues to be) a
mentor and role model for many of the state OUs, and indeed, until recently had the responsibility of managing them through the Distance Education Council (now located within the UGC). It also acts as a national resource centre, and serves to promote and maintain standards of distance education in India. IGNOU hosts the Secretariats of the SAARC Consortium on Open and Distance Learning (SACODiL) and the Global Mega Universities Network (GMUNET) initially supported by UNESCO.

Advances in technology have made it possible to increase both the access and reach of HEIs through Open and Distance Learning (ODL). An example of this is the National Knowledge Network (NKN), a platform for delivering distance education where teachers and students can interact in real time. This is especially significant in a country like India where access to education is limited by factors such as geography, lack of infrastructure facilities etc. The NKN enables co-sharing of information such as classroom lectures, presentations and handouts among different institutions (NKN website). Hence it was recommended that ICT be used in the further development and growth of both conventional and the distance mode of higher learning to reach the remote and less developed segments of population areas. It could even be useful in promoting technical, vocational and professional education with hands on experience in AICTE approved institutions. Since the boundaries between conventional and ODL were blurring, credit transfers should be introduced between the two for meaningful convergence (Sharma, 2013).

Enhanced provision of open and distance learning widens access in a flexible and (it is argued) cost-effective way through Government support to IGNOU, to state open universities, and to other institutions of distance education; and traditional institutions will be encouraged to promote blended learning by offering part of their curriculum online (Sharma, op cit).

Distance Education provision is an extremely important element for the system in India, and it provides opportunities for many who would otherwise be unable to pursue higher education study. It is a key provider throughout the country. However, in terms of managing quality, distance education poses even greater challenges than managing locally or semi locally based affiliated colleges. Staff development in the dispersed conditions in which they have to work is also challenging.

5.6  **Enrolment and Access**

In terms of access to Higher Education, according to the data on student enrolment, the Gross Enrolment Ration (GER) in Higher Education in India is only 19.4% on average (2011-12). A majority of students (86% or 14,616,473 in numbers) are enrolled at undergraduate level, whereas only 12% are enrolled (or 2,049,124 in numbers) in post-graduate level. Barely 1% of the students pursue doctoral research in India (or 137,668 in numbers). Nevertheless, it is important to note that even though the percentage of enrolment represents a small ratio, the absolute number of learners could make a significant difference in influencing the Indian economy.

The government has begun efforts to improve the GER to 30 per cent by 2020. The three central pillars of the 12th Five Year Plan of increasing excellence (i.e. to improve quality so that there are better learning outcomes); expanding (i.e. to improve capacity to meet the rising demand for higher education); and improving equity (i.e. to provide educational opportunities for all citizens regardless of their social position, wealth or geographical location) are all informed by this.
However, in the great Indian education race, only 10 per cent of the population aged between 22 and 35 years has access to higher education according to a report titled *Intergenerational and Regional Differentials in Higher Education* in India by Delhi-based Centre for Research and Debates in Development Policy and a research analyst working with National Council of Applied Economic Research (Abuselan and Sharma, 2014).

Nor is the growth in higher education provision evenly spread across the country, nor across social classes. In the age group 22-35 years, over 15% in the northern region and 13% in the southern region have access to higher education. In the north-central region, the number is just 10% for men and 6% for women whereas in the northeast, only 8% men and 4% women have access to higher education.

Furthermore, it is often difficult for people in rural areas to attend urban universities or colleges: there is a dearth of residential accommodation, grants are few or difficult to access, and information about availability may simply not exist in some rural areas. Similarly different social groups are unequally represented in higher education, despite successive governmental legislation over a considerable period of time to enable greater equity.

### 5.7 Subjects Studied

Another element central to the considerations of Tuning is the subjects that institutions provide, and the take up by students. Much reporting focuses on the quality of technical and professional education, but about three quarters are enrolled in the general subjects of Arts and Humanities, Commerce and Management, and Sciences. For many of the subject areas within these categories there is a tradition to focus on knowledge acquisition based on teacher centred learning, rather than competences as well as knowledge in the student centred approaches that the government and industry now want. The distribution may reflect fact that such subjects can be delivered to a large student population without incurring the relatively high costs associated with STEM education (highly regarded science education centres are located in the large cities of Delhi, Bangalore, Hyderabad, Chennai and Mumbai). Work in curriculum development and faculty professional development will have to take this into account. While professional subjects like Engineering, Medicine, and Education are more likely to have encouragement from professional bodies to adopt an approach that includes competence and skills development, there is evidence that even in these subject areas this is not yet well enough developed. A recent research report on the opinions of Engineering companies about graduates revealed serious criticisms about the lack of creativity, critical thinking and higher order cognitive skills development. (India Skills Report, 2014)
Nevertheless, the general subjects could have strong potential benefits in providing for employment and lifelong learning if the curricula were to include more focus on the development of higher level cognitive competences and interpersonal skills. ‘generalised skills enable workers to develop and implement new technology quickly ... therefore good quality general higher education, rather than becoming less relevant, is likely to become more relevant in time to come. It is now realized that generic skills, with adaptability, flexibility and opportunities for lifelong learning will provide young people with the best basis for a career in any (sic) area and for the unforeseen needs of the future’ (Agarwal, 2009: 230).

The KMPG report on global skills for graduates also emphasised the need for students to develop appropriate attitudes, commitment to learn, teamwork, communications skills, problem-solving and relationship management.

WIPRO’s research into the transition from university study to work is also interesting as it shows how work demands a greater tolerance of uncertainty than does university study, teamwork, the need to work out both problems and solutions, activity based learning, work discipline, self-evaluation, adhering to norms of work discipline and corporate etiquette etc.

The recent National Employability report by Aspiring minds found that many students lacked the skill sets that employers required. As one employer reported to India Today ‘Companies, which place more emphasis on soft skills, are also shocked at the quality of engineers. Engineers have to interact with customers. I have come across candidates who cannot draft an email in English that has to be sent to customers. Written, verbal communication and etiquette have now become a major part of selection criteria’.

All of these skills based recommendations imply that there needs to be a change in approaches to study on the part of students, and this has to be led by changes in what staff do. (Kember et al, 2012)

There should be no lack of work for future well qualified Indian graduates, provided they are educated to be adaptable and their communication skills are internationally acceptable as more multinational companies relocate to India, and Indian companies establish branches in other countries.
5.8 Credit system

India lacks a common system of credits which is an impediment to student mobility both nationally and internationally.

The 12th 5 Year Plan states that a globally compatible academic credit system (and internationally recognized curricula and processes) will be put in place. A choice based credit system has also been proposed by the National Knowledge Commission but not implemented university. The UGC Annual Report 2013 further states that credits should be based on student workload, and that one credit requires 15 hours of student workload.

A wide variety of views as to what constitutes a credit exists, even within official documents. The regulations governing Distance Learning, for example, state that one credit is equivalent to 30 hours’ student work, while the forms for application for recognition appear to imply that this is optional.

In most universities visited there was little evidence of a credit system working, and in most cases where credits exist they are linked to contact hours, and not to student workload. In one case there was reference of an hour of class contact requiring three of study; in contrast, in another case there was a definition of credit by AICTE for a postgraduate programme of four semesters with a total of 128 credits – a figure quite close to the European Credit Transfer System (ECTS) or the Latin American credit system (CLAR).

5.9 Approaches to Teaching and Learning

“It’s a worrying sign that even though the 3rd largest number of graduates in the world every year is produced in India, only 15 percent of our boys and girls passing out of college have the skills required to become employable! This brings in concerns that students are getting degrees, but not getting employable hands-on skills” – Pratibha Patil, President of India

The linking of credits to contact hours is typical of content oriented, input based approaches to education. In most of the institutions visited this seemed to be the approach adopted, although there were exceptions. The structure of college education, where the curriculum and examinations are decided by an outside body do not encourage a learning centred approach. The content orientation is also evident in the lists of programmes available in many universities, where the criterion of differentiation seems to be fine-tuned attention to content. One other aspect that was noted in some regions was a total acceptance in some institutions of the authority of a superordinate body, whether this was an affiliating university, the regulations of State or Government, or the advice and structures suggested by IGNOU.

There are some examples of learning centred approaches and links to the needs of employability in developing curricula. Some interviewees mentioned priorities in terms of employability and connection with different industries, such as IBM, the Tokyo foundation, etc.

Professional programmes were those which most frequently stressed the need for practical skills, although the CII skills survey of engineering graduates (Wheebox, 2014) suggests that there may be far to go. A notable example of good practice is from the University of Delhi, which in May 2014, signed an agreement with the National Skills Development Corporation (NSDC) of the Government of India. There is now, however, some doubt about
whether this scheme will be put into practice in the immediate future. Under this agreement each year, approximately 60,000 students from all the colleges of the University of Delhi admitted for study under the Four Year Undergraduate Programme (FYUP) will be given, in their second and third years, the opportunity of acquiring special skills for jobs and entrepreneurship related to the knowledge that they obtain in their FYUP studies. This work placement will be in the sectors of: Banking, Financial Services and Insurance (BFSI); IT and IT Enabled Services (ITES); Health Care; Media and Entertainment; Tourism and Hospitality; and the Automotive Industry. 70% of all students under this programme will be assured of placements through NSDC for jobs or for becoming entrepreneurs in the above sectors.

Work placements are a feature of other programmes discussed in interviews, but there was no clear understanding on the part of the team of how these operate. A ‘bolt on’ work placement that is not linked to skills and competence development during the academic phase of the programme is always going to be of doubtful value.

5.10 University Staff or Faculty

Statistics show that universities with large numbers of affiliated colleges have as many – or more - administrative staff as they have academics. It has been noted in reports that the additional funds gained through the affiliation system are often almost exhausted in the running of the system.

The average student:staff ratio in many colleges and universities is high in most states – up to 26:1; in colleges it is substantially higher than in universities, and can be as high as 30+:1. Most accounts of state universities also underline the fact that posts go unfilled largely because of funding restrictions. Furthermore, in some private colleges (and private colleges account for nearly 60% of all colleges) there has been a move towards paying lecturers for the hours they teach. This phenomenon is not peculiar to India – in Canada, for example, there is a trend in the wealthy Ontario province to offer similar hourly paid contracts. Where such conditions of employment prevail the impact on teaching and learning is negative.

University salaries in India for tenured staff are not particularly low compared with other public sector employment. What is low in some institutions is the level of resources available, the often shabby and depressing conditions of work, and the restrictions placed on affiliated colleges with regard to curricular innovation. Creativity is an important factor in staff motivation to maintain high standards of learning in their students, and has been shown to be a key factor in making the difference between commitment and apathy in teaching staff (Huberman 1993).

Hourly paid staff may have to teach in several institutions to earn a salary, and even if they do not, then the pressure of work curtails developmental work in teaching. As one respondent noted ‘learning outcomes, competences and skills are not in the curriculum, only teacher based objectives’. Implementing a new student-centred – or student-centric to use the Indian term - approach is a severe challenge where there is a lack of human and material resources.

Academic – teaching staff – views of teaching learning and assessment are varied, in India as elsewhere. A Commonwealth Universities report in 1998 pointed out that teachers in higher education face increasing demands which require staff development and training.
These demands all resonate with those already of concern in Indian higher education. They include

- a need to be responsive and able to change (in line with the changing policies of governments, external demands and social pressures);
- a call for greater awareness of international perspectives in the content of courses;
- the demand for relevance in the curriculum from employers, governments and students;
- the need for more inter-institutional co-operation, in some cases with the burgeoning private sector;
- awareness of the institution’s role in society and the need for it to contribute to national development or the local community;
- a growing emphasis on quality teaching as opposed to research as a worthwhile career goal for academic staff;
- the increase in demand for postgraduate provision, particularly in those countries with relatively high participation rates.

India has long been aware of the need for professional development for university teachers. The National Policy on Education 1986 (NPE) highlighted that teachers were not given adequate opportunities for professional and career development and were not sufficiently oriented to the experiential methodologies for teaching/learning or the value of innovative and creative work to fulfil their roles and responsibilities effectively.

Consequently, the Academic Staff Orientation scheme, later known as the Academic Staff College scheme, was initiated by the University Grants Commission (UGC) in 1987. UGC Academic Staff Colleges (ASC) were established within Universities as autonomous units for organizing staff development programmes funded by the UGC. Under the 12th Five Year Plan staff development and staff recruitment are prioritized. Some new staff colleges have already been authorized under the new funding mechanisms.

Today, there are 66 ASCs spread over 26 States. Andhra Pradesh has the maximum number i.e. 6, followed by Maharashtra and Uttar Pradesh having five each. Tripura and Nagaland are the only two States without ASCs. ‘ASCs contributed significantly to the improvement of the quality of teaching in higher education institutions in India by enhancing the competencies of the teachers.’ (NAAC).

There are those who question the relevance and efficacy of what is offered in staff colleges, and there is no discernible coordinating strategy for them, apart from their (funded) existence.

All or most of staff colleges have web pages setting out their aims, what courses are offered, etc. Numbers of courses seem to vary, possibly in ratio to the numbers of academic staff and affiliated colleges; for example, looking at the web pages of two of the universities visited, Ranchi university’s staff college in 2014-15 offers 5 orientation courses for academics and 5 courses for different levels of administrators, including college principals; while that of the University of Rajasthan offers in the same period 5 orientation courses, a summer and a winter school in research methodology, 15 subject based refresher courses, 5
short term courses (some for administrators) and 5 special programmes including a three week course for PhD students.

NAAC evaluates the staff colleges. It was noted in a UGC draft document that participation in staff development is one of the criteria for the promotion of college teachers: the higher the grade applied for, the more evidence of attendance in staff development courses was required.

Staff development is thus well established as a *formality* in the university system in India and is an on-going activity.

Agarwal (2009) suggested that subject based networks of teachers could help to restructure the curricula, redesign sequences of courses, as well as helping to develop policies and frameworks to strengthen teaching, learning, and research (and assessment: our addition) in different subject areas in *ways that are in tune with global practices*. He goes on to suggest that such networks could be coordinated through an independent body such as a national qualifications authority or similar.

A Tuning project would therefore fit culturally within this overall framework of activity. Staff Colleges should be involved in a potential Tuning project in some significant role, as they have the expertise and experience of providing courses for the academics and administrators and could contribute their expertise and knowledge, and in turn, benefit from participation in the project in the academic groups.

### 5.11 Role of Employers and Professional Bodies

A unique strength in the Indian system, and one which would be invaluable in a Tuning project, is the practical and theoretical interest that the world of work demonstrates in higher education. Business and industry have no regulatory role in higher education, but they require that universities and colleges develop students who are fit for employment, thus, their views influence both the professional bodies and institutions.

The Government is an active partner with business and industry in developing collaboration in a number of fields, including education, and during the 11th Year Plan (2007-12) invested heavily in this. The Government sponsored the National Skills Development Corporation (NSDC), which has made significant progress at a pan-India level by promoting, sponsoring and financing skills development programme implementation agencies, and facilitating the creation of nearly 30 industry-led Sector Skills Councils (SSCs) that are laying down sector-specific national occupational standards. The NSDC provides a robust framework for states to take the work forward.

A National Skills Qualification Framework (NSQF) is being – or now has been - developed, which aims at a common lingua franca for course curriculum, skill assessment and recognition for education below degree level. Critically, this is formulated by an industry body, the Sector Skills Councils (SSC), and, therefore, endorsed by industry.

Similarly, the establishment of the Council for Industry and Higher Education Collaboration (CIHEC) has provided the forum for greater corporate participation in higher education.

Underlying these initiatives is the way that industry is cooperating with Government in providing financial support for higher education, largely, but not only, through Corporate Social Responsibility (CSR) mechanisms. The Education and Skill Development sector is
the most popular category of CSR spending, accounting for 79% in 2011-12. Large industrial concerns also directly finance educational institutions – some of the most prestigious private universities are industry funded, as are many affiliated colleges.

Many companies have invested in developing talent, including (among others) TATA, Wipro, TCS, CISCO, Ernst and Young, KPMG, either in scholarships, in-house training, placement schemes, establishing private institutions or research.

Outstanding among employers’ organizations who have been supporting the Government’s reform of higher education for greater employability are the Federation of Indian Chambers of Commerce and Industry (FICCI), an association of business organizations in India; and the Confederation of Indian Industry (CII), an association of individual companies.

FICCI is an old established federation of chambers of commerce from all Indian regions. It has the indirect membership of over a quarter of a million companies in commerce and industry. It also has centres in 17 Indian cities, and representatives have expressed a strong interest in working with Tuning.

The CII is a non-government, not for profit industry-led and industry-managed organization. Like FICCI it plays a proactive role in India’s development. Founded over a century ago it has the direct membership of over 7,500 businesses including small and medium enterprises (SMEs) and Multinational Corporations (MNCs), and an indirect membership of over 83,000 companies from its associations with sectorial and regional organizations. The CII also works closely with government on policy issues related to industry and takes an active interest in the education of the future workforce.

Some of this interest has shown itself in valuable surveys of views, and research into outcomes based approaches in higher education. The CII and FICCI have been particularly active in this. For example, recent research into employment in engineering, done in collaboration between the CII, Wheebox and People Strong (2014), made important recommendations about the competences required by engineering graduates. It found that what employers wanted was that engineering education institutions should: (i) seek to improve the skill set of graduates; (ii) recognize the importance of Soft Skills, (iii) refocus the assessments, teaching-learning process, and curricula away from lower-order thinking skills, such as remembering and understanding, toward higher-order skills, such as analysing and solving engineering problems, as well as creativity; and (iv) interact more with employers to understand the particular demand for skills in that region and sector. Similarly, the annual FICCI Forums have produces a series of important evidence based papers sponsored and delivered in collaboration with its members.

In the day to day work of universities there may be links with business and industry or professional bodies but this often depends on networks of professionals rather than any systemic arrangement. As one interviewee reported 'Regarding the role that employers play in the definition of the curricula and competences, in the field of Engineering employers collaborate with the departments, not only in developing activities and projects but also as consultants for the definition of the type of knowledge graduates should have. But this does not happen in a systematic way nor in a regulated way and it is normally relies on informal relations, depending on the ties departments have with employers and private sector'. Another informant stated that while in theory employers could have seats on university committees, in reality this is often problematic.

Professional associations also play a role in the development of curricula and standards in
higher education. In the context of a potential Tuning project, the principal statutory councils to involve because of their role in recognition might be the Medical Council of India (MCI); the Indian Council for Agricultural Research (ICAR); the Engineering Council of India; and The Council of Architecture (COA). Some professional associations have an indirect regulatory role, others have strong international links, e.g. the Engineering Council with links to the Washington Accord. Tuning would wish to take advice from the Indian authorities on which of the many professional bodies be involved in a potential project.

A Tuning project involves the active participation of a range of actors, including the willingness of the world of work to be participate in consultations. Documentation studied from professional bodies and business organizations suggests that there will be more than a willingness on the part of employers and their associations. In the case of professional courses – medicine of all kinds, nursing, engineering, law, education and so on, there are clear links to relevant professional bodies. Most of the universities interviewed stated that they had good links with professional bodies, both formally and informally. In the case of the subjects that do not have an obvious professional link – arts, humanities, commerce and science – where professional bodies are discipline theory groups rather than employment linked, the business associations – FICCI and CII - may be a route to pursue. The teams found little evidence to suggest that this link is an issue being pursued at the moment.

The extent of the infrastructure for tracking former students is not clear. The fact that under RUSA substantial funds are to be allocated to support infrastructure may suggest that tracking will not be straightforward, although some regional reports were positive about this, e.g. The East Region report. More information is needed on this issue, even though some of the institutions visited did have the ability to track graduates.

5.12 Quality Assurance, National and Institutional

Accreditation in higher education in India has been a voluntary exercise over the years, as a result, a relatively small percentage of HEIs have opted for accreditation, although those who have, and have achieved a high grade are proud of this. The statistics show that only 31% of universities and 14.5% of colleges have been accredited by the National Assessment and Accreditation Council (NAAC 2013). Under the RUSA proposal accreditation will become compulsory for most types of institutions. Interestingly, until now, distance learning colleges are exempt – in many ways they are among the most challenging for quality assurance and one might have thought they would be included as a priority, as was commented in 5.6, page 32.

The Quality Assurance System at institutional level is stipulated by NAAC. All NAAC accredited institutions should submit an annual self-reviewed progress report to NAAC, through its IQAC (Internal Quality Assurance Cell). The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year.

The establishment of a quality assurance system is the essential prerequisite to having a fully-fledged quality assurance and enhancement system which would not only protect standards, but continually feed into curriculum renewal and maintenance. The NAAC procedures contain the important awareness raising element of a self-assessment document. The process of reflecting on quality, exploring how this is achieved in an institution, entering a dialogue with all stakeholders to finalize the self-assessment is a
powerful learning tool for institutions, and the criteria laid down by the quality assurance agency can guide this.

However, the teams were not able to gather much information about how quality assurance systems interface with quality enhancement at institutional and programme levels. There was some evidence of obtaining student feedback on their experience of learning, but very little information about how this was used. From universities there were mixed reports of how students are involved in university life apart from their role as learners. In some institutions students take an active role in evaluating programmes and providing feedback, and have places on University committees. In others their role is strictly limited.

The general impression from the informants is that student feedback is not systematically collected and where it is, there is no evidence of how it is used for quality enhancement. Having said that, it was noted from some meetings, particularly in south India, that students were also invited to attend the Tuning interviews and meetings. This was unusual as the visits by the teams coincided with a vacation period for students. In East India, some academics responded that the role the students have in the evaluation of teaching and the teachers is that the students gave feedback about the teachers every year, and they also attend committees.

There are numerous students’ associations in India, often affiliated to politics. (See Appendix 10.1 for a list).

### 5.13 National and International Networks

Many of the institutions visited have, or are developing, international and national networks and collaboration. At all the Indian institutions visited in south India, for example, the regulatory bodies and agencies, NAAC, senior academics, scholars, faculty, students and many stakeholders were all very open to international collaboration related to education. This was irrespective of the extent of existing involvement whether in large institutions such as IIMB and IIIT-Bangalore which have well established international links, or in institutions with no previous international involvement such as the Dr. B. R. Ambedkar Open University.

Interviewees thus saw the positive benefits that a Tuning link could bring. They saw potential support in programme development, including credit system development, and staff networking which would complement their already vigorous, or desired, partnerships with other institutions in India, the United States and Europe. (IIT, Delhi).

It can be said that all universities are eager to have international collaboration and to develop joint degrees with partners, nationally or overseas. Some are aware of the Fulbright programme, some have Commonwealth university links, and some, at a European Level, have Lot and Erasmus Mundus programmes. Such links, valuable though they are, cannot provide mobility and opportunity for the vast number of students at all levels. Indeed, they are normally limited to numbers of lecturers, professors or people in the International Relations Offices of Indian Higher Education Institutions. However, those who have been involved in such programmes know about and have a positive attitude towards Higher Education reform.

In terms of study abroad, US is clearly the favourite destination (with almost 100,000 student visa holding Indians in the US in 2012/13), the other major academic destination is Canada.
A very small percentage (far less than 1%) of students in Indian higher education are foreign, and some academics mentioned that they would like to attract more of these. Clearly there is a need for the recognition elements that the 12th 5 Year Plan includes for higher education, for example, a unified credit system, compulsory accreditation by NAAC, a clearly stated National Qualifications framework, curricula that are more universal in the inclusion of competences and higher order skills, and ways of assessing student achievement that align with intended learning outcomes.

5.14 General Response to Tuning

It was agreed in many interviews that there are a number of national and institutional reform endeavours which resonate with the Tuning methodology making it appear both relevant and useful (e.g. the development of a national and institutional quality assurance system – NAAC; the recent development of a national skills qualifications framework and work being undertaken on a broader framework; the review and revision of some curricula towards a competence based approach; staff development to encourage better student learning, teaching and assessment; the improvement of communication with employers and the industry sector for more institutions). Tuning could provide some appropriate tools to aid capacity building with regard to curriculum development, quality assurance and the professionalization of teaching.

In most of the institutions visited there was a very positive response to the presentations of Tuning, significantly in government policy institutions as well as employers’ organizations. At the highest levels of government there was encouragement; the Planning Commission, for example, whose role is policy rather than implementation, would be very willing to take a role of responsibility at policy level. This is important since the responses at the level of institutions was that they are strongly guided by what is mandated by national or state Government. The concept of a Tuning project was strongly endorsed by the Association of Indian Universities (AIU) which has a membership representing over a third of all Indian universities. NAAC offered generous support in terms of space and staff should this be needed, and FICCI, with offices in 17 cities, supported a potential Tuning project and has the infrastructure to facilitate links between business and industry and the higher education institutions. Individual academics interviewed were almost unanimously supportive of the part that Tuning could play in the Indian reform processes. All agreed that the elements in the Tuning methodology were perfectly attuned to national and institutional policies and highly relevant at this point in the 12th 5 Year Plan.

India is already active in ‘tuning’ its own Higher Education system. Although not widespread, dialogues are taking place between employers and higher education institutions, not so much in shaping or restructuring curricula as in creating better linkages (for example through the role of FICCI, CII, and professional bodies). A successful employer – government structure was responsible for developing the National Skills Qualifications Framework which augers well for the initiative to implement a National Qualification Framework which resonates with others with which Tuning has worked. Knowledge of incorporating competences into the curriculum, and the theories of outcomes based learning are gaining ground, and while implementation of such approaches is still fairly
limited, awareness of them is growing in higher education institutions, and demand for them is well established from employers and Government.

The large variety of institutions, although inevitably a challenge, it also an important capacity, there are different strengths in the different institutions. The most traditional public universities with their well-established academic habits and democratic culture contrast with the private, newly created institutions with a higher capacity to react and with their entrepreneurial, almost aggressive culture. Tuning will also be beneficial as an exchange platform in a vast and dynamic system where institutions are being created and more are needed, the introduction of this element could really help

Even in the most traditional classical universities a trend is emerging to rethink university in terms of society in a broader inclusive sense that includes vocational aspiration. For example, some universities are starting to add a year to their studies to offer an option to incorporate the work on social issues.

This last point raises one of the critical needs of the system which is to relate degree programmes to the needs of society. This was clearly recognized by all the people interviewed. They spoke about the inflation of degrees and the fact that they not correspond to the reality. Tuning could be beneficial through introducing the concept of the degree profile. This development has the capacity to enrich the review and updating of programme curricula which already happens every three to four years, and could serve as an important tool in introducing greater diversity of focus in teaching and learning, and relating programmes to needs.

Some universities keep electronic records of alumni and the data seems to be updated; there are professional bodies with strong responsibility and capacity for consultation; there are organized systems for employers; and associations of students. So the social groups with whom to carry out a consultation are available.

There is a very high capacity for coordinating the project from within using the country central bodies: Ministry and Human Resources UGC, NAAC, AICTE. These central bodies are able to create the environment for integrating the project into their policies making its development a significant plus for the country development of Higher Education.

A further contribution that tuning could have is in relation to internationalization. One of the important needs of the system is the need to compare, to relate to others, to benchmark and to let the wind of other cultures and other ways of doing things affect and relate to the own system, being able to move somehow out of one’s own ways of seeing things is always a challenge for large countries and India is no exception. The needs and the desires to engage into international relations were very clear in any of the universities and groups of academics visited.

5.15 Challenges to the Implementation of a Tuning Pilot

The nature of the reform being undertaken in Indian higher education makes a good ‘fit’ with the philosophy and methods of the Tuning approach. Nevertheless, implementation of a Tuning pilot or project would face a number of challenges.

The central criticism of graduate employability in India is mainly directed at undergraduate education, representing 86% of all students. The majority of this is conducted in over
35,000 colleges, not directly in universities. It is essential that the colleges should be involved in a project that is linked, as we propose, to the Indian reforms (UGC Secretary in interview, section 10.1.1). AICTE and the AIU also endorsed this view. It will not be a simple matter of having universities as hubs, relaying the Tuning tools to their affiliated colleges, since many universities have large numbers of affiliated colleges. The longer term Indian answer could be that a Tuning project could help to establish strong subject based groups, as suggested in Agarwal (2009) and provide the tools that can be adapted for them and by them to use in dissemination. This would mean that a potential Tuning pilot would have to work with Indian academics, including those who staff the ASCs, to make the work of the Subject Area groups forward looking, with a very strong dissemination bias. Cascade staff development of this kind has a long tradition in India; certainly at school level it has been used successfully as far back as the 1960s. More recently it was effective in examination reform in the State of Maharashtra in the 1990s, (Gilpin 1997; Kadepurkar, 1996, 1997) where tens of thousands of teachers were involved with good results. Cascade staff development requires the strong steer, materials and tools that a Tuning pilot could provide, as well as the infrastructure of staff colleges, the requirement of undergoing staff development for promotion, the support of the authorities etc. that already exist in India.

A second challenge is the hierarchical nature of Indian higher education, in perception, even where it may provide greater freedom in fact. There was a distinct flavour from interviews at many universities that the reforms are a wholly top-down process, worked out by authorities at a higher level, and that institution would wait to be told what to do. (It has to be said, however, that contrasting views were stated in which the freedom to make small changes in the regular three yearly review of curricula was reported, and in innovative approaches to teaching and learning adopted in some national institutions and private universities). The reality of the rather negative perception was recognized by personnel in government and management interviewed, who stressed that a project would require ‘ministerial blessing’, would need to involve management as well as teaching academics, would require ‘champions’ at senior levels of Government. There is a thin line to be trodden here, between involving senior echelons in the project and allowing the project to become over-bureaucratized (another challenge that was discussed in interviews). The two tiered structure that Tuning has adopted in other contexts would involve stakeholders from Government and ‘the authorities’ with employers’ groups as part of the project, working in parallel with university academics. Consultation prior to implementation would be required to select the representatives for the advisory group, and it would be essential that a project have very senior representation, qua the ministerial blessing noted above. Since this would be a project that formed part of the India-EU partnership it is unlikely that such endorsement would not be forthcoming.

A third challenge could be seen in the wide diversity of higher education institutions. Nevertheless, the large variety of institutions, although inevitably a challenge, it also an important capacity, there are different strengths in the different institutions. The most traditional public universities with their well-established academic habits and democratic culture contrast with the private, newly created institutions with a higher capacity to react and with their entrepreneurial, almost aggressive culture.
This leads to a fourth challenge, the culture of universities: where their focus lies, how they regard their role and autonomy, how they see their relationships with colleges, and so on. One thing was very clear from the interviews: all university staff respondents have a strong and positive commitment to their students and to their employability, and knowledge is highly valued – not only by academics in universities, but by the wider population.

Education to enrich the individual and therefore society through serious knowledge development or acquisition is still a strong aim in Indian higher education. This perspective is also explored by Agarwal (2009), who, in discussing ‘human capital as an agent of growth’, criticises ‘the serious limitations’ of the ‘limited view of higher education that human capital theory advocates’ and supports the UNESCO classifications of the four pillars of knowledge: learning to know, learning to do, learning to live together and learning to be (UNESCO, 1996, in Agarwal, 2009, quoted in Clark and Lund 2014). There is thus a tension (as elsewhere) between the knowledge oriented aims of the University and the more overtly vocational. This is a fundamental challenge for Tuning, where the emphasis on competences and learning outcomes can appear to ignore the importance of developing knowledge, even though the competences identified by all groups so far have included all four aspects of learning. It will be important for a potential pilot to emphasize that the competence approach Tuning discusses is based on the UNESCO four pillars of knowledge and not just on the second.

A fifth challenge may be resources: the reality is that reforms are staff expensive, since if programmes are to be reviewed, enhanced, quality managed for continuous improvement, then it is the staff working on them who have to do the work. Respondents commented on the need for a project not to impose an additional bureaucratic layer; it will be equally important to demonstrate how a systematic collegial approach to reforming curricula, while not eliminating some additional work, provides a context in which the sharing of the load, and the development of materials by teams, can mitigate the burden considerably. This is one of the key features of the Tuning approach: those working on a programme are collectively and collegially owners of the processes of development and maintenance. Again, the inclusion of the ASCs will be essential for support and for sustainability in resource stretched contexts.

A sixth challenge is the sometimes tenuous link between industry and universities: the need is perceived but the implementation is not always effected. Many respondents averred that they had some links with employers/employment, but few could give convincing examples. This is partly a cultural matter as noted above; but it is a serious societal matter: parents and employers expect a say in what universities do. Tuning includes all stakeholders (but not parents) in its consultations, and the tiered structure of the proposed project will allow employers’ representatives to participate. This process, well handled, will allow both sides of the debate to communicate their concerns and work out solutions. In addition, Tuning could be beneficial through introducing the concept of the degree profile. This development has the capacity to enrich the updating of curriculum which in any case already happens every three to four years and could serve as an important tool in introducing greater diversity of focus in teaching and learning, and relating programmes to needs.

The status of external ‘northern’ projects in India presents a further potential challenge. The new Government under President Modi has initiated ambitious plans to increase the number of institutions of national importance by a dozen or so immediately, and this
signals the importance and urgency of the educational reforms to this new Government, and would suggest that a Tuning project might be perceived as very welcome, especially given its non-interventionist thrust. However, India has long been a leader in the discourse of non-interference by the north in southern affairs, and of south-south dialogue and solidarity. As recently as this year the Indian Intelligence Bureau expressed suspicions about interference. In interviews some academics warned of the need not to try and impose external structures and processes on Indian universities. The EU, currently not perhaps seen as an equal partner with India, (Maudesley 2014) can offer a project proposal within existing structures of their partnership arrangements, and in so doing emphasize the nature of the project and the desire to strengthen the partnership between the two polities.

Finally, the sheer size and diversity of India is a challenge: India is almost as large as Europe, it is a vast country with variable infrastructure. It is also polarised in that the developing economy offers opportunities for many but there remains a gulf between the haves and the have nots. This polarisation extends to the quality of higher education and institutions, which ranges from very high to poor, and to the resources within them. (Clark and Lund 2014). The selection of a structure for a project that takes account of the geographical challenges while at the same time allowing a mix of participants that is inclusive will be an important precursor to success.

**5.16 Subjects Areas to Consider**

The final recommendation of subjects, based on the findings of the Feasibility Study is: at least one from the general subjects of Arts, Commerce and Science; Engineering, IT, Health Sciences, and Agriculture.

The final choice would have to be made by Indian personnel from government, professional bodies and institutions, but the research we have done strongly supports these subject areas.

In deciding the subject focus several factors were taken into account.

1. The distribution of enrolment among subjects in colleges and universities shows that the majority of students, certainly at undergraduate level, study Arts and Humanities, Commerce and Sciences. It has also been argued that this broad based liberal education can provide a strong employability and lifelong learning potential if curricula are oriented towards appropriate competences and skills. *Arts and Humanities were fourth in the preferred choices of interviewees, while Commerce was fifth.*

2. Another element is the economic planning needs of the country. Taking into account the need for engineers, and the reported lack of success of many undergraduate programmes to fully satisfy this need, then engineering would clearly be on the agenda.

3. A third is the strengths of the industries in India, for example the information technology industries, their current strengths and needs, and their potential for the future. *The top three preferences of those who were interviewed were for Science, Technology and Engineering.*

4. Similarly, medical and pharmaceutical industries are important industries, suggesting Medical Sciences. *This was also prioritised among recommendations of the academics and others interviewed.*
5. At another level, although it does not account for more than approximately 20% of the GDP of India, agriculture provides an average of 50% of the employment, more in some states. In such an agriculturally rich land there may be a need to advance the university study of the subject to lead to greater value added industry related to agriculture and to real entrepreneurship for the rural population. *Agriculture and Education figure lower down in the preference order of interviewees.* Under previous Five Year Plans where primary and secondary school education were more central, focus was placed on teacher education. Therefore, of the two agriculture would appear to be the stronger contender in terms of economic development in the future, as well as in the involvement of the rural areas.

6. If we consider the responses provided to the teams in their consultations, we see that Arts and Humanities gained strong support, fourth in order of preference. Of the subjects noted were History, Geography, *Language*, general sociology and social sciences. English language as a functional tool of communication is mentioned repeatedly in the literature on employability in India in two senses: many young Indian students are proficient in the use of the language for study, but those from disadvantaged groups (lower castes, tribal areas, rural students) may not have the advantages of their urban dwelling middle class peers. Even the proficient users may need a different kind of performance for different outcomes.

### 6 Conclusions

The analysis of the system shows a mixed pattern of challenges and impressive potential. So the questions of whether Tuning would be possible, would it be timely, would it be beneficial, should be now addressed.

India is an important actor on the world stage, economically, culturally and educationally. This is true now and will have even greater significance in the future when it will be a youthful country needed by the countries of the north, and others in Asia, with their aging populations. It has a well-developed and responsive, but complex higher education system, of necessity or tradition highly regulated.

However, the Indian concern regarding the quality of education at all levels is continuous and increasing. This is partly a reflection of societal demand and community alertness of the ‘critical crisis’ of education (lack of skills and competences of graduates and others) and its direct impact on unemployment in India, and also an issue of Government action. Indians are education oriented: families want their children to be educated, and the size of the private sector suggests that some are ready to even make economic sacrifices to achieve this. Aligned to this we have a higher education sector that is facing the challenge of having to look at what they teach and how they teach it that parallels what has happened in many countries in the latter part of the twentieth century and the early part of the twenty-first.

This large, dynamic Higher Education system has responded to change and demands of many kinds and is already involved in reform, many of which are cognate with the work that Tuning is doing and has done.

The analysis of the system shows a mixed pattern with particular needs and impressive potential. Nevertheless, the evidence suggests that the achievements already seen in some institutions, especially in the well-funded and highly selected national centres of excellence such as the IITs, need to be replicated across many. In particular there is a need to reform
the curriculum, teaching, learning and assessment in what are called the general subjects as well as in the professional subjects that have been the main subject of employer initiated research. There is a need to integrate the development of employment related competences and skills in all subjects, not at the exclusion of knowledge, but to support the acquisition of this and the cognitive skills needed to use it with discrimination at whatever level.

A particular strength in India is the well demonstrated willingness of employers, encouraged by Government legislation and incentives, to contribute to curriculum improvement. An India-Tuning pilot could take advantage of the fact that some universities are actively seeking more contact with employers and employers are seeking contact even more actively. Student and alumni organizations also exist that can contribute to the processes of reform and in turn help students to learn more about their own education. Nor should parents be forgotten, many of whom sacrifice a great deal to pay for their children’s future through investment in private education.

There is a very high capacity for coordinating the project from within using the country central bodies: Ministry and Human Resources UGC, NAAC, ACITE. These central bodies are able to create the environment for integrating the project into their policies making its development a significant plus for the country development of Higher Education.

Of course there are challenges. Profound reform can attract profound opposition, since it can create uncertainty and doubt at the heart of the academic community’s sense of professionalism.

The 12th 5 Year Plan focuses on a strategic shift from input-centric to learner-centric learning; promotion of innovation and research by creating synergy between teaching and research; development of faculty; movement toward internationalization; and the creation of alliances and networks between academic and research institutions and industry.

However, there are serious challenges in India, not only in the weak infrastructure in many institutions, as outlined in section 5.15 above.

In conclusion - the many strengths in the Indian system would work with the Tuning methodology making a project both useful and feasible, particularly as typical Tuning work facilitates internal reforms and does not impose an additional burden on busy academics and others. Furthermore, since the underlying philosophy of Tuning is to work within the cultures of the context, and encourage total ownership of the project by the participants, the fears of Indian scholars, that a project might ‘try to impose external standards to improve their practice’, are unfounded. India also offers opportunities to Tuning. As described above, Tuning is the product of gradual improvement effected by the input of academics and others from many contexts in the world. The dynamic system in India provides a new opportunity – and challenge – for the Academy. For the participants, as well as gaining understanding of their own reforms, there is the opportunity of networking, not only with other teachers, but with research networks nationally and internationally.

One particular strength is that the reform is already started, and academic staff will want to make it work for them, for their students and for their institutions. Therefore an EU partnership of this type is timely. Another is that the system is already well coordinated at the level above institutions: government, states, national bodies and industry are well informed and largely working together. Tuning provides a model for engaging institutions in this level of debate, a model that can be used, for example, in staff colleges and staff development centres. Using the tools and methodology that have been developed over many
years and in many contexts, ensure that the processes of coming to grips with the changes proposed is distanced from one’s own programmes to some extent. It allows debate and consideration among a peer group from a wide selection of institutions and can make acceptable what was at first unacceptable.

The Tuning methodology provides a resource for development at personal and institutional levels. It is sustainable since it creates subject based groups of experts who understand the need for change and who have a battery of tools to help others adapt to change. It engages academics and senior administrators, encouraging debate and dialogue to permit ongoing communication at a different level of understanding. And, it creates opportunities for networking, professional enjoyment, personal development, research and creativity

7 Recommendations

The overwhelming evidence from interviews and desk research suggests that a Tuning project would serve the Indian higher education system well, as a small scale pilot project and on a rather larger scale.

Tuning could be helpful in defining quality standards through the definition of competences and level descriptors. It could also facilitate ways of finding better integration and mobility between universities and the world of labour, between universities in India and between them and universities overseas, and between non-degree and degree tertiary education through the development of the National Qualifications Framework.

7.1 We therefore recommend that an India-EU pilot project be considered.

7.2 We further recommend that the subject areas chosen should be: at least one from the general subjects of Arts, Commerce and Science; Engineering, IT, Health Sciences, and Agriculture. (subject to further advice from the Indian authorities).

7.3 We recommend that a future Tuning project in India should be linked to existing policies and not be developed as something new that ignores those initiatives. A Tuning project should clearly indicate, how Indian institutions can achieve Indian targets. Thus, it should be clearly linked to national and institutional priorities and utilize existing networks wherever possible. The structure of a normal Tuning project, based as it is on subject based working groups of academics, would enable the formation or strengthening of subject based networks of academic advisers as has been recommended.

7.4 We recommend including working academics from different types of universities (central, state, private, deemed, Indian Institutes etc.) working together in subject areas. Heterogeneous and diverse groups in terms of institutional provenance can contribute better. The large variety of institutions is an important capacity; there are different strengths in the different institutions. The most traditional public universities with their well-established academic habits and democratic culture combined with the private universities and Indian institutes would create a rich dynamic for a Tuning project.

7.5 We recommend that a working party of representatives of the authorities work alongside the academic groups in order to facilitate greater cross understanding of issues and developments, and to give the project the stamp of ministerial approval.
7.6 We recommend that distance learning (ODL) should be included, and that the ASCs’ role be considered as important for follow up and sustainability.

7.7 We recommend that due attention be given in planning and implementing the project to the balance between highly developed institutions and those that face greater challenges, and that the work of the subject area groups be facilitated by careful working guidelines to mitigate workload stress and different levels of awareness of curriculum development processes.

8 Suggested Design of a India-Tuning Pilot Project

To accommodate the recommendations, a possible pilot project has several elements in its design, but the main driver of the design would have to be its sustainability in terms of a model for teacher learning development that could be used by the staff colleges and others established on the nucleus of subject based specialist groups formed in the pilot project, equipped with knowledge and tools to develop further.

8.1 Management Structure of a Pilot Project

To answer some of the challenges posed by the diversity and complexity of the system, a pilot project in India would benefit from having a tiered structure. This would comprise three groups: a Policy group, Academic working groups organized by subject, and a management committee. This structure would apply to any of the three scenarios considered and presented below.

8.1.1 Policy Group (National Tuning Centre – NTC)

There is a very high capacity for input into the project from within using the country’s central bodies: Ministry of Human Resources, UGC, NAAC, and AICTE. These central bodies are able to create the environment for integrating the project into their policies making its development a significant plus for the national development of Higher Education.

There are some serious issues that need to be discussed at a senior policy level, among which might be the implementation of a credit system, the National Qualifications Framework, policies on recruitment and development of staff, on creating links between teaching and research, and between what students study and the world of work.

This group called the National Tuning Centre (NTC) would ideally also have representatives from the Planning Commission, NAAC, SHECs, CIHEC, NSDC, professional bodies (selected), FICCI and CII, among others. It should not be very large since too large a group can prevent communication: no more than 20 or so representatives who would have a clear remit of communication within their organization. They would:

- Provide the factual knowledge base for the project
- Provide a forum where issues related to student learning can be seriously considered
- Enable direct communication to take place between academics and authorities, around issues that arise in the tempo of the project
• Provide the context in which the sustainability of the model, the adaptations that might be needed etc. can be immediately debated.
• Bring together key personnel to discuss key issues with academics, e.g. credits, resources, inter-institutional collaboration, links with Faculty Centres and Colleges, changing the approach to teaching etc.

The project would be firmly vested in the institutions taking part in the SAGs, and the authority of the debate would lie with them, but it is suggested that the NTC could support their work. The NTC separate space parallel to the discussions and contributions of the SAGs. The SAGs and the NTC would reflect together from time to time, and the joint reflections would help to overcome obstacles, to find points of contact, to identify positive aspects in others, to resolve and to agree - but above all, to foster dialogue; to understand the other and, with the other, to try to build something in common. It is to be emphasised that this would not be a bureaucratization of the methodology; on the contrary, the NTC would be there as support.

8.1.2 Subject Area Groups (SAGs)

These would be organized according to the subject areas that are selected after the final consultation. Group sizes of around 15 to 18 are optimum if the budget allows for this, each member representing a university.

In each group one member would be actively working and teaching in Distance learning mode, either in an Open University or in one of the many others who now use distance and blended learning as a strategy for inclusion. Each group should also have one member from a Staff College. This group would work through the five lines of a typical Tuning project, exploring in turn

• needs analysis vis-à-vis generic and subject specific competences;
• relating these to curriculum design and student learning outcomes;
• institutional and subject area profiling:
• good practices in teaching, learning and assessment;
• quality enhancement; and student workload and credits.

Each SAG normally has an experienced Tuning consultant supporting their work, acting as an information source etc. There is also a SAG coordinator drawn from the participants. The Tuning consultant works closely with the coordinator in, for example, preparing the final publication of the work achieved, but the role is always advisory.

8.1.3 Management Committee

Normally, each Tuning project has a Management Committee comprising the coordinators of the SAGs and Tuning Advisers. The function of this group is to fine-tune the processes of the work, to prepare and receive reports with the Policy Group where the latter exists.
8.4 Possible scenarios for a Tuning project in India

Three scenarios for a future Tuning project for India are therefore contemplated here: national; sub-regional; or national and sub-regional combined.

We recommend scenario C since it combines the strengths of A and B and appears to us to respond most strongly to the strengths and challenges of the Indian system.

8.4.1 Scenario A: National approach

The idea of a national approach is to facilitate reflection at a country level in order to reach basic agreements within the framework of Higher Education. A National Tuning approach would be limited to a maximum of five subject areas.
Each subject area would form a Subject Area Group or SAG, and each would have representatives from all five sub-regions of India, working in teams of 15-18. Thus a National scenario implies a project comprising 75-90 universities from 5 sub-regions, working together in 5 SAGs, each region being represented by about three universities in each subject area.

This scenario allows different types of universities and all 5 sub-regions to be represented in each of the 5 SAGs. The advantage is the national focus that the project would have with such a composition of SAGs. This would facilitate the decisions taken at the SAGs being immediately seen having taken account of all regions.

A national approach involves a greater degree of agreement within the project, and subsequent validations that group members have to make along the different stages of the project. This model was used in the Tuning Latin America. For this scenario, the participating universities in each SAG for each sub-region should conduct consultations and validations with other non-participating universities in the same sub-region. This would allow the final agreements to be considered as in principle as national.

For the National level, we suggest inviting one participant from different Tuning projects in the world (Europe, Latin America, Africa, Russia, and China) linked to the subject area group defined, in order to enrich the national discussion and make it international. Their participation will be that of observers but their presence will give the discussions new perspectives.

8.4.2 Scenario B: Sub-regional approach
Recognizing the differences among the sub-regions in India, one of the alternatives for a future project could be a strong sub-regional structure.

For each sub-region, a number of subject areas for a possible Tuning project could be selected. One advantage of a sub-regional approach is that it would give regions the ability to start a Tuning pilot with subjects perceived as priority areas within the region.

Each of the five sub-regions would work on one subject area, making 5 in total, meaning that this scenario would include between 75-90 universities, working together in 5 SAGs each with 15-18 members. Each sub-region would need to select one different subject area, avoiding overlap and future competition between reference points defined at the same time in different contexts. The idea is to introduce the Tuning methodology in the sub-regions through discussions in locally relevant subject areas.

This scenario allows each sub-region to develop more extensively a subject area that is considered a priority and offer the results nationally that at a later stage to be validated by other sub-regions. Thus, the representativeness of the universities in the SAG will be greater at the sub-region than in scenario A.

The NTC group would continue to participate as in the previous scenario, and would have a role in monitoring the agreements reached in the sub-region that may in the future be extended to other sub-regions or the entire country. This model was used in Tuning China, where each region worked one area and then the Ministry of Education took the results achieved in each region to validate them nationwide. This scheme allows for two
central general meetings (first and last) with the rest of the meetings in the sub-regions, reducing in this way organizational and logistical costs.

8.4.3 Scenario C: A combination of the National and Sub-regional approach

We recommend Scenario C since it combines the strengths of the National and sub-regional approaches. In parallel, it offers two levels of reflection, which could be complementary and iterative throughout the process. In this scenario, the pilot project should focus on five subject areas, each subject area hosted by one of the five Sub-regions.

Each Sub-region would be regarded as the host for a subject area and at the same time a national hub, with responsibility to ensure that the project is conceived and realised as an Indian project. Each subject area group would be composed of 10-12 institutions from the sub-region and four or more institutions from other sub-regions.

This scenario is inspired by Tuning Africa where each region has a wide representation of the area and has one or two members from other regions.

All scenarios should take into account a balance between highly developed institutions and those facing greater challenges. We recommend including one representative Distance Learning University as a partner of all subject area groups.
These are the main findings from the *Feasibility Study on the Relevance of a Tuning Approach in Higher Education for India* which were discussed with Indian representatives in a meeting which was held in Delhi on September 2014.
9 References


*All India Survey of Higher Education 2011-2 (provisional)* (2013), New Delhi, Government of India Ministry of Human Resource Development, Department of Higher Education


ASIHE (2013) *All India Survey on Higher Education* New Delhi, MRHD


Barkatullah Vishwavidyalaya, Bhopal *A Brief Profile 2014*, published by the B V University.


Brochure National Institute of Ayurveda, www.nia.nic.in


CII-Deloitte (2013) *Annual Status of Higher Education of States and Union Territories in India (ASHE)*


Department of College Education Rajasthan, http://dee.rajasthan.gov.in/

Ernst and Young and FICCI (2013) *Reaping India’s Demographic Dividend: industry in the driving seat*. Published Ernst and Young, India

FICCI Higher Education Summit (2012) *Higher Education in India: Twelfth Five Year Plan (2012–2017) and Beyond*  


FICCI Skills Development Forum Recommendations for the 12th Five Year Plan (undated)  


ICG the IIS University (Jaipur) and the NAAC reports,  
http://iisuniv.ac.in/sites/default/files/downloads/naac


Labour Bureau, Chandigarh (2014) *Youth Employment- Unemployment Scenario 2012-13* Ministry of Labour (labourbureau.nic.in/youth)

Madhya Pradesh Bhoj (Open) University, Bhopal, (2014) *Information Brochure*, Madhya Pradesh Bhoj (Open) University, Bhopal, 2014
Mawdsley, E (2014) Development and EU Strategic Partnership: Missing incentives and divergent identities Policy Brief, Brussels, European Strategic Partnerships Observatory


NAAC (2007) New Methodology of Assessment and Accreditation © NAAC, Bangalore

NAAC (June 2011) Methodology for Reviewing the Performance of Academic Staff Colleges © NAAC, Bengaluru

NAAC Manuals, including Guidelines for Assessment and Accreditation etc. http://www.naac.gov.in/manuals_ass_accrd.asp

NASSCOM (2014) India’s IT-BMP Talent Trends: Annual HR Survey 2014


Prospectus Rajasthan University 2014-2015 http://uniraj.ac.in

Rahman, P. F and Ahmed, I. Academic Professionalization in Higher Education through Staff Development An overview of Indian experience Paper from UGC-Academic Staff College, Maulana Azad National Urdu University, Gachibowli, Hyderabad-500032

Rashtriya Ucchatar Shiksha Abhiyan (Rusa) http://mhrd.gov.in/rusa


Shariff Abusaleh and Amit Sharma Intergenerational and Regional Differentials in Higher Education in India New Delhi, Centre for Research and Debates in Development

Sharma, K. A. (2013) Sixty Years of the University Grants Commission: Establishment, Growth, and Evolution. New Delhi, University Grants Commission


The India-EU Strategic Partnership Joint Action Plan 2005 http://commerce.nic.in/trade/India_EU_jap.pdf

UGC (2013) Indian Higher Education - Quest for Excellence New Delhi, University Grants Commission

UGC Annual Report 2011-12 New Delhi, University Grants Commission


World Bank Growth Data, downloaded 5th November 2014
http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG

10 Appendices

10.1 Student Organizations in India and their Affiliations

<table>
<thead>
<tr>
<th>Student organization</th>
<th>Affiliated with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akhil Bharatiya Vidyarthi Parishad</td>
<td>Bharatiya Janata Party</td>
</tr>
<tr>
<td>All India Revolutionary Students' Organization</td>
<td>Communist Party of India (Marxist–Leninist), Central Organ Red-Star</td>
</tr>
<tr>
<td>Students Federation of India</td>
<td>Communist Party of India (Marxist)</td>
</tr>
<tr>
<td>MGOCSM</td>
<td>Student wing of the Indian Orthodox Church</td>
</tr>
<tr>
<td>National Students' Union of India</td>
<td>Indian National Congress</td>
</tr>
<tr>
<td>Trinamool Chhatra Parishad</td>
<td>Trinamool Congress</td>
</tr>
<tr>
<td>Bharatiya Vidyarthi Sena</td>
<td>Shiv Sena</td>
</tr>
<tr>
<td>All Assam Students Union</td>
<td>historically related to Asom Gana Parishad</td>
</tr>
<tr>
<td>Gorkha Janmukti Vidhyarthi Morcha</td>
<td>Gorkha Janmukti Morcha</td>
</tr>
<tr>
<td>All India Democratic Students Organization</td>
<td>Socialist Unity Centre of India (Communist)</td>
</tr>
<tr>
<td>All India Progressive Students Union</td>
<td>Revolutionary Socialist Party</td>
</tr>
<tr>
<td>All India Progressive Students Union (Bolshevik)</td>
<td>Revolutionary Socialist Party (Bolshevik)</td>
</tr>
<tr>
<td>All India Students Association</td>
<td>Communist Party of India (Marxist–Leninist) Liberation</td>
</tr>
<tr>
<td>(Progressive Democratic Students Union, Punjab Students Union)</td>
<td>Communist Party of India (Marxist–Leninist) New Democracy</td>
</tr>
<tr>
<td>All India Students Bloc</td>
<td>All India Forward Bloc</td>
</tr>
<tr>
<td>All India Students Federation</td>
<td>Communist Party of India</td>
</tr>
<tr>
<td>All Kamtapuri Students Union</td>
<td>Kamtapur Peoples Party</td>
</tr>
<tr>
<td>Biju Chhatra Janata Dal</td>
<td>Biju Janata Dal</td>
</tr>
<tr>
<td>Campus Front of India</td>
<td>A progressive student organisation started in 2009 in Delhi with a slogan &quot;Students for Social Change&quot;</td>
</tr>
<tr>
<td>Chhatra Bharati</td>
<td>Independent student organisation currently with Third front and Anna Hazare</td>
</tr>
<tr>
<td>Chhatra Janata Dal (Secular)</td>
<td>Janata Dal (Secular)</td>
</tr>
<tr>
<td>Chhatra Lok Janshakti</td>
<td>Lok Janshakti Party</td>
</tr>
<tr>
<td>Chhatra Rashtriya Janata Dal</td>
<td>Rashtriya Janata Dal</td>
</tr>
<tr>
<td>Organization</td>
<td>Party/Group</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Chhatra Sabha</td>
<td>Indian National Lok Dal</td>
</tr>
<tr>
<td>Hmar Students Association</td>
<td>Indian National Lok Dal</td>
</tr>
<tr>
<td>Indian National Student Organisation</td>
<td>Indian National Lok Dal</td>
</tr>
<tr>
<td>Maharashtra Navnirman Vidyarthi Sena</td>
<td>Maharashtra Navnirman Sena</td>
</tr>
<tr>
<td>Muslim Students Federation</td>
<td>Indian Union Muslim League</td>
</tr>
<tr>
<td>Orissa Chhatra Parishad</td>
<td>Orissa Gana Parishad</td>
</tr>
<tr>
<td>Progressive Democratic Students Organization</td>
<td>Communist Party of India (Marxist-Leninist) in Andhra Pradesh</td>
</tr>
<tr>
<td>Progressive Democratic Students Union</td>
<td>Communist Party of India (Marxist-Leninist) New Democracy in Andhra Pradesh</td>
</tr>
<tr>
<td>Rashtrawadi Vidyarthi Congress</td>
<td>Nationalist Congress Party</td>
</tr>
<tr>
<td>Radical Students Union</td>
<td>Communist Party of India (Maoist) in Andhra Pradesh</td>
</tr>
<tr>
<td>Samajwadi Chhatra Sabha</td>
<td>Samajwadi Party</td>
</tr>
<tr>
<td>Kerala Students Union-affiliated to NSU</td>
<td>Indian National Congress</td>
</tr>
<tr>
<td>Students Islamic Organisation of India</td>
<td>student wing of Jamaat-e-Islami Hind</td>
</tr>
<tr>
<td>Telangana Rashtra Vidyarthi Samithi</td>
<td>Telangana Rashtra Samithi</td>
</tr>
<tr>
<td>Twipra Students Federation</td>
<td>Indigenous Nationalist Party of Tripura</td>
</tr>
<tr>
<td>Kerala Students Congress (Jacob)</td>
<td>Kerala Congress (Jacob)</td>
</tr>
<tr>
<td>Indian National Student Association</td>
<td>student wing of All India colleges and school students</td>
</tr>
</tbody>
</table>
# 10.2 Glossary of Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHELO</td>
<td>Assessment of Higher Education Learning Outcomes</td>
</tr>
<tr>
<td>AICTE</td>
<td>All India Council for Technical Education</td>
</tr>
<tr>
<td>AIU</td>
<td>Association of India Universities</td>
</tr>
<tr>
<td>ASC</td>
<td>Academic Staff Colleges</td>
</tr>
<tr>
<td>BFSI</td>
<td>Banking Financial Services and Insurance</td>
</tr>
<tr>
<td>CCEA</td>
<td>Cabinet Committee for Economic Affairs</td>
</tr>
<tr>
<td>CIHEC</td>
<td>Council for Industry and HE Collaboration</td>
</tr>
<tr>
<td>CLAR</td>
<td>Latin American Credit System</td>
</tr>
<tr>
<td>CSIR</td>
<td>Council of Scientific and Industrial Research</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>ECTS</td>
<td>European Credit Transfer System</td>
</tr>
<tr>
<td>FICCI</td>
<td>Federation of Indian Chambers of Commerce and Industry</td>
</tr>
<tr>
<td>FIST</td>
<td>Fund for Improvement of Science and Technology Infrastructure from CSIR</td>
</tr>
<tr>
<td>FYUP</td>
<td>Four Year Undergraduate Programme</td>
</tr>
<tr>
<td>GER</td>
<td>Gross Enrolment Ratio</td>
</tr>
<tr>
<td>GMUNET</td>
<td>Global Mega Universities</td>
</tr>
<tr>
<td>HE</td>
<td>Higher Education</td>
</tr>
<tr>
<td>HEI</td>
<td>Higher Education Institution</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IGNOU</td>
<td>Indira Gandhi National Open University</td>
</tr>
<tr>
<td>IIIT</td>
<td>Indian Institute of Information Technology</td>
</tr>
<tr>
<td>IIT</td>
<td>Indian Institute of Technology</td>
</tr>
<tr>
<td>INEUFp</td>
<td>India-European Forum of Parliamentarians</td>
</tr>
<tr>
<td>INR</td>
<td>Indian Rupee</td>
</tr>
<tr>
<td>ITES</td>
<td>IT Enables Services</td>
</tr>
<tr>
<td>MCI</td>
<td>Medical Council of India</td>
</tr>
<tr>
<td>MHRD</td>
<td>Ministry of Human Resource Development</td>
</tr>
<tr>
<td>MNC</td>
<td>Multi-national Corporation</td>
</tr>
<tr>
<td>NAAC</td>
<td>National Assessment and Accreditation Council</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>NASSCOM</td>
<td>National Association of Software and Services Companies</td>
</tr>
<tr>
<td>NKN</td>
<td>National Knowledge Network</td>
</tr>
<tr>
<td>NSDC</td>
<td>National Skills Development Corporation</td>
</tr>
<tr>
<td>NSQF</td>
<td>National Skills Qualifications Framework</td>
</tr>
<tr>
<td>ODL</td>
<td>Open and Distance Learning</td>
</tr>
<tr>
<td>OU</td>
<td>Open University</td>
</tr>
<tr>
<td>PAB</td>
<td>Planning Advisory Board</td>
</tr>
<tr>
<td>RUSA</td>
<td>Rahtriya Uchchatar Shiksha Abhiyan</td>
</tr>
<tr>
<td>SAARC</td>
<td>South Asian Association for Regional Cooperation</td>
</tr>
<tr>
<td>SACODiL</td>
<td>SAARC Consortium on Open and Distance Learning</td>
</tr>
<tr>
<td>SHEC</td>
<td>State Higher Education Council</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium Enterprise</td>
</tr>
<tr>
<td>SSC</td>
<td>Sector Skills Councils</td>
</tr>
<tr>
<td>Tuning</td>
<td>Tuning Educational Structures (based in the Tuning Academy)</td>
</tr>
<tr>
<td>UGC</td>
<td>University Grants Commission</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
</tbody>
</table>