Committee on Corporate Participation in Higher Education

Report of NR Narayana Murthy Committee

सत्यमेव जयते

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Foreword

The higher education system in India has been critical to India's emergence in the global knowledge economy and has contributed significantly to the large pool of qualified manpower required to support economic growth. However, the higher education system seems to be plagued by several problems – inadequate number of institutions to educate eligible students, poor employability of the graduates produced by the universities, low and declining standards of academic research, an unwieldy affiliating system, an inflexible academic structure, an archaic regulatory environment, eroding autonomy and low levels of public funding, to name a few.

The Indian higher education system also lags significantly in comparison to global standards as illustrated below:

- India has a low Gross Enrollment Ratio (GER) of 20% compared with 84% in the US, 59% in the UK, 55% in Japan, and 28% in China.
- Higher education spending in India is 1.1% of GDP. The US spends 3.1% of its GDP on higher education while South Korea spends 2.4% of its GDP on the same.
- No Indian college or university ranks among the top 300 of the prestigious Times Higher Education Supplement (THES) which is based on peer evaluations. Only one Indian university forms part of the 2011 rankings of the Shanghai Jiao Tong University's Top 500 (based on research output and impact) whereas China has 23 institutions in the Top 500.
- As pointed out by the National Knowledge commission, during the period 1991-2001,growth in the number of doctorates has been 20% in India compared to 85% in China. Less than 1% of those completing undergraduate degrees currently opt for doctoral studies in India and a substantial number of students prefer to go abroad.

For India to sustain its growth momentum and to strengthen its competitiveness, a world-class higher education system is an important pre-requisite. Global experiences indicate a positive correlation between GER and economic growth in a country and point to the need for a minimum of 30% GER to sustain economic growth. To meet this minimum requirement there has to be a sharp improvement in the quality and quantity of institutions of higher education to match standards in a globalized modern higher education system. This will require significant investment and focus on faculty and research.

The Working Group on higher and technical education for the 12th Five Year Plan has projected a resource requirement of Rs. 4,13,368 crores. This large amount is unlikely to be made available. Given the limited volume of public resources available, the government has to find innovative and newer avenues for funding, promoting research and upgrading quality while focusing on scale to meet the requirements.

The corporate sector is a key stakeholder in higher education. It can play a pivotal role in improving India's current higher education system as well as in meeting future aspirations. Corporations can collaborate with the academia in several ways, with varying funding commitment, ranging from direct ownership and management of institutions to collaborating with the higher education institutions in research, faculty development, infrastructure creation, student scholarships, and governance.

It is in this context that the Planning Commission constituted this Committee on Corporate Sector Participation in Higher Education, in January 2012. The Committee's mandate (refer the Terms of Reference of the Committee) was to examine and provide recommendations on the potential and modalities for corporate sector participation in higher education in support of development of national education and innovation hubs and the Institutions of National importance (INIs)/ centers of excellence, and models for industry-institution interaction to act as catalysts of innovation and sustainable and inclusive economic and regional development.

The Committee has looked into various issues arising from the terms of reference. It held three meetings and several consultations among the Committee members, to discuss the issues pertaining to the role that the corporate sector can play in improving the higher education system. The Committee believes that by easing current norms, overcoming systemic challenges, creating a conducive environment for higher education to thrive in and focusing on quality of the institutions and the outcomes (students, research output), the government can endeavor to transform a select group of Indian higher education institutions into world class institutions and attract investments for new institutions. These issues need to be addressed to ensure productive participation from the corporate sector. The government needs to transform itself from a provider of higher education to play key roles in enabling and establishing an appropriate regulatory framework to set quality standards for higher education. The Committee has approached its mandate from this perspective.

The recommendations proposed in this report are three-fold:

1. Create enabling conditions to make the higher education system robust and useful to attract investments.
2. Improve the quality of higher education by focusing on research and faculty development, with

corporate sector participation.

3. Engage the corporate sector to invest in existing institutions, set up new institutions, and develop new knowledge clusters.

Details of the recommendations are given in the enclosed report. The Committee would like to suggest that the recommendations be treated as a whole. In case these recommendations are accepted, the Committee also suggests that an empowered inter-ministerial group be set up under the aegis of the Planning Commission to implement these recommendations, and provide guidance to the nodal agency to be set up to liaise between the corporate sector and academia.

The Committee members and I would like to thank Shri. Montek Singh Ahluwalia, the Deputy Chairman and Dr. Narendra Jadhav, Member (HRD) of the Planning Commission for this opportunity to contribute to the sector that is at the core of the long term prosperity of the nation. I would also like to thank every member of the Committee including Pawan Agarwal and Amit Khare for sparing their valuable time. Pawan Agarwal also helped us by pointing to some of the most recent work done abroad in this area. This was found useful by the Committee.

N. R. Narayana Murthy
Chairman of the Committee

26 April 2012

1.Introduction

Education is a powerful tool for national development as it is the only route to economic prosperity for both individuals and the nation. Its role will amplify as changes in technology, globalization and demographics, impact productivity and, thereby, economic growth. It is imperative for India, with the second largest population in the world, to focus on education to unleash the full potential of its human capital and develop a democratic knowledge society while, at the same time, help reduce poverty and social inequality.

In the last decade, the government has been focused on expansion, equity through inclusion, and excellence in higher education. Despite the efforts taken, there are serious challenges.

Quality deficiency: India has the distinction of having the largest number of institutions for higher education in the world, but a majority of them are understaffed and ill-equipped.

- **Faculty shortage**–As per the FICCI-E&Y report, 45% of the positions for professors, 51% positions for readers, and 53% positions for lecturers were vacant in Indian universities in 2007-08.According to statistics from the Ministry of Human Resources Development, the student to teacher ratio in an average higher education institution is 26:1, compared to the norm of 15:1. It is also quite adverse in comparison to national and international benchmarks. This ratio is 11:1 for the Indian Institutes of Management. According to The Princeton Review, it is 7:1 for Harvard University and 5:1 for Stanford University.
- **Deficient physical infrastructure**–A study of infrastructure quality of 1471 colleges and 111 universities by UGC revealed that 73% of colleges and 68% of universities fall under medium or low quality.
- **Poor academic standards** - The system is plagued with outdated curricula and ill-equipped libraries. As per the FICCI-E&Y report, the number of books per student in the library of an average higher education institution in India is just 9 compared with 53 at IIT Bombay and 810 at Harvard University.
- **Unaccredited institutions** - As of March 2011, only 161 universities and 4,371 colleges had been accredited by the National Assessment and Accreditation Council (NAAC).
- **Employability** - Currently, around 500,000 engineering students graduate from the Indian engineering colleges. This is estimated to cross one million in three to four years from now. While the numbers are impressive, the quality of these graduates is not. The Indian industry

finds that a large number of these graduates are unemployable and invests heavily in further training. According to NASSCOM, only 25% of the pool of graduates available for IT/ITES industry is readily employable. Similar challenges are faced across other disciplines and industries, including public institutions.

Quantity mismatch: The need for higher education is ever increasing. Student enrolment has shown a steady increase from 8.4 million in 2000-01 to 14.6 million as of 2009-10. With increasing focus on primary and secondary education and a projected fall in the drop-out rates, the demand for higher education is estimated to increase at a compounded rate of 11-12% till 2022 and will require an additional capacity of about 26 million seats over the next decade. This would result in increased demand for institutions to educate and make employable the vast number of students who would join the system in the next 15 years. While scaling up to meet increasing future demand, the Indian institutions of higher education have to be made attractive for students by bringing them at par with global standards to generate a higher number of competent and employable graduates.

Funding gaps: The government spends 1.1% of GDP on higher education. This is only 19% of the total spend on education. The current outlay from the government will not be sufficient to meet the requirements. As pointed out by the National Knowledge Commission, there is need for greater public investment, diversifying sources of financing and stimulating private investments as a means of extending educational opportunities in higher education.

The key challenge facing the government and policy makers is how to maintain quality while increasing the reach of the current system without exerting more pressure on public finances and how to create world-class universities in India to bring in competitiveness and enhance innovation.

Corporate participation

The corporate sector is a direct beneficiary of the higher education system. Globally, the corporate sector has played an important role in higher education institutions. In India too, the corporate sector can play a significant role in addressing these issues by bringing in financial resources, providing research support and collaboration opportunities, helping in faculty development, supporting students through scholarships and offering opportunities to complement learning through internships. The engagement models for the corporate sector can be several – from being a passive provider of capital to the most active in terms of directly owning and running an institution. As an end stakeholder, the corporate sector also could play a key role in activities beyond institutional aspects. To adequately leverage the corporate sector, it is important to look at the entire set of engagement models to ensure significant participation as well as diversity.

The recommendations and ways to execute them effectively are detailed in the following section.

2. Recommendations

Corporate participation in the higher education sector is vital in many ways. However, to encourage this participation, it is important to create an enabling environment in the existing higher education system that allows existing institutions to become world-class, as well as facilitate the establishment of new world class institutions. In view of the above, the recommendations of the Committee fall under the following broad categories.

A. Recommendations towards creating enabling conditions to make the higher education system robust and useful to attract investments.

1. ***Autonomy*** – in financial, regulatory, academic and administrative aspects
2. ***Resources*** – ensuring availability of land, infrastructure and connectivity
3. ***Fiscal incentives***– to encourage investments and attracting funding
4. ***Enabling environment***– (such as visas) for free movement of faculty and students to promote collaboration with world-class institutions abroad
5. ***Freedom to accredit***– with global accreditation agencies to put Indian institutions on par with the best
6. ***Access to funds***– through scholarships to enable students to pursue their chosen fields of study

B. Recommendations towards corporate participation in improving quality by enhancing research focus and faculty development.

7. Enhancing ***research focus*** – through dedicated funding for research, sponsored doctoral programs, and part-time Masters and PhD programs
8. ***Faculty development*** – by increasing the talent pool of faculty from corporates (working and retired), faculty development programs, and sponsorships of visits by expert faculty

C. Specific recommendations towards creation of new infrastructure through corporate investments in higher education.

9. Setting up of **new facilities** by the corporate sector in existing universities and higher education institutions either as Centers of Excellence (CoEs) or in the form of technology parks.
10. Setting up of **new universities and higher education institutions**.
11. Developing **new knowledge clusters / hubs**.

2.1 Autonomy

2.1.1 Autonomy

Autonomy is an important pre-requisite for building a world-class higher education system. The Higher Education Institutions (HEIs) should be having complete financial, academic and administrative autonomy. This should be accompanied by a stringent accountability framework.

- Financial autonomy should be inclusive of the freedom to charge board-determined fees from students, to raise and manage funds (public funding, private endowments and other resources), to have norm-based financing with flexibility to spend funds based on the institution's specific needs (infrastructure, students, faculty, laboratories etc.) without requiring permission from government. The extent of government support should be linked to the number of students who can be supported through public funding beyond which the institutions should be allowed to raise their own funds.
- Academic autonomy should be inclusive of the freedom to decide on all academic and faculty related aspects. This should be inclusive of the freedom to decide on curriculum design (subject to a peer-review process), instructional material, pedagogy, student evaluation, joint collaborations with any university abroad, freedom to invite professors or students from other universities in India or abroad or send faculty or students to universities abroad. Academic autonomy should be inclusive of the freedom to attract, hire, and retain top domestic and international talent at appropriate salaries, flexibility in managing research or consulting programs, incentivize talented faculty, freedom to promote and give compensation based on individual performance and merit rather than any norms decided by the government for faculty and staff, and parity of experience irrespective of the status of institutions (experience to be treated on par among central, state or other universities).
- Administrative autonomy should be inclusive of the freedom with respect to admissions (subject to the current reservation norms as applicable in public institutions while the private institutions will continue with the current practice of no reservations), starting of new campuses and courses, the ability to grant degrees subject to fulfillment of accreditation guidelines, freedom to the academics of these institutions to travel abroad, pay for the travel of visiting professors, students and administrators, without need for any approvals from central or state governments or any other agencies.

2.1.2 Accountability

The accountability framework should be based on outcomes and driven by a Memorandum of Understanding (MoU) signed between the specific public institution and the government, with the government assuring full autonomy. However, there will be no need for any MoU between a private institution and the government.

- For every public institution, there should be a charter and a strategic plan which specifies the set of outcomes it will deliver over a period of 10-15 years.
- An approval of 75% of the majority in the parliament and state legislature should be required for any changes to the charter.
- There should be an annual performance evaluation and the outcomes should be reviewed by the board of the institution. The board of the institution should be held accountable for these outcomes. There should be an academic review of the institution by an accreditation agency once in five years. There should not be any operational interference or need for approvals from any central or state government agencies on administrative matters.
- The public funding of the institution should be linked to the adherence to milestones and performance against the outcomes committed as part of the MoU.

Adherence to these norms should be considered a necessary pre-condition for funding by the government and funding should be linked to meeting these committed outcomes.

2.1.3 Governance

Governance is an area linked closely with the aspect of autonomy. The governing board provides the strategic vision for the institution and drives accountability. In view of this, the Committee has the following recommendations on the constitution of the governing board and the heads of the institutions.

2.1.3.1 An institution's alumni are key stakeholders of the institution. Globally, they play an important role in the governing bodies of the higher education institutions. To leverage their contribution towards improving governance, alumni should be included in the governing bodies of the higher education institutions. In well-established higher education institutions, with over 10 years in existence, alumni should be inducted on their governing boards actively with the end goal of having the majority of the governing board comprised of alumni, over the next 10-15 years.

2.1.3.2 Like in the best universities in the world, there should be just one representative from the central and state governments on the boards of public institutions, each with just one vote. Private sector institutions should be free to choose the membership of their governing boards. There should be an arms-length relationship between higher education institutions and bodies like UGC and there should not be any role played by these bodies in the selection of the heads and the faculty of the institutions.

2.1.3.3 Representation from the key stakeholders including academicians, corporate leaders, and eminent citizens representing the civil society, should be ensured in the governing boards of the higher education institutions. Representation from independent members (beyond their promoting entities) in their governing boards should be ensured by the private institutions.

2.1.3.4 There are two models of governance in the current university system. One model is where the Vice-Chancellor is also the Chairman of the Board (like in the case of universities). The other model is where the positions of the executive head of the institution and the Chairman of the Board are held by two different people (like in the case of IITs/IIMs). The second route should be encouraged since a prominent person from outside the institution can add value in the role of the Chairman. This route is presently not available to deemed universities and should be reconsidered.

2.2 Resources

Land constitutes a significant portion of the capital expenditure for a university to set up new research laboratories, create new campuses, open centers of excellence, provide space for business collaboration activities thereafter, or for setting up a new institution.

2.2.1 For setting up new institutions, land should be allocated by both central and state governments, free of charge for 999 years. Such land should be usable for setting up academic facilities, incubation centers and technology parks as well as residential facilities for faculty, staff, students and administration and other social infrastructure like school, college, recreation and health facilities for the institution, car and bus parking, restaurants, shops etc.

2.2.2 Norms governing the FSI (floor space index) for higher education institutions should be relaxed to encourage compact city campuses and ensure optimal land utilization in urban centers, subject to conditions of basic amenities like hostels, sports grounds, and other social infrastructure being met.

2.2.3 For the locations where land is granted for new institutions, very good air connectivity matching global standards should be ensured by the government. There should be high quality rail and road connectivity to these locations.

2.2.4 There should be flexibility in the usage of land as long as it is used for educational, research or incubation purposes. For example, in the land usage objectives in industrial, public and semi-public areas designated by municipalities, development authorities, and district planning committees, higher education should be included by state governments since close higher education-industry interaction will benefit the nation. Flexibility should also be provided to the university to use underutilized land with matching land uses for leasing to other educational institutions and corporates for research and academic collaborations, and to generate income from these leases to support the same. There should be a transparent national and state policy on such land grants.

2.2.5 State governments should be encouraged to develop land banks for higher education institutions and hubs. Universities and research bodies of central and state governments which have surplus land should be incentivized to give land on perpetual lease to new universities and institutions.

2.2.6 Corporations which have surplus land that is not likely to be used for the foreseeable future should also be incentivized to part with their land or provide it on perpetual lease to new universities and institutions.

2.3 Fiscal incentives

Fiscal incentives should be provided by the central and state governments to encourage investments and attract funding to the sector as well as to enable the higher education institutions to build long term funds.

2.3.1 Contributions made by a corporate or a foundation or any other grant-making entity to a university or to a research center or a center of excellence (being part of a university or higher education institution) or a new university approved by the government or an approved program under auniversity-industry partnership, should be eligible for deduction from taxable income to the extent of 300% of such contribution.

2.3.2 Implicit disincentives in tax and trust laws to invest in the higher education sector should be removed (e.g. the rule requiring trusts to spend 85% of income streams from endowments in the same year as they are generated should be discontinued since it constrains build-up of corpus).

2.3.3 Higher education institutions should be incentivized to build significant endowments.

2.4 Enabling Environment

2.4.1 The existing visa regime is a significant impediment to free exchange of ideas and movement of faculty and students that is essential to building world class institutions.

- A 10-year multiple entry visa for multiple visits of six months duration for each visit for all academic and research visitors (faculty, students, staff, researchers, administrators and visitors for conferences) should be issued within 24 hours of the application. A visa for five-year visit should be issued within 5 working days.
- All academic and research visitors (faculty, students, staff, administrators and researchers) should be exempt from the current visa regulations of minimum salary norms ($25,000 per annum).

2.4.2 To enhance the academic standards and increase interactions with global institutions, there should be explicit encouragement to the faculty and students from both public and private institutions to actively interact and collaborate with faculty and students of world-class universities in India and abroad.

2.4.3 There should be an explicit initiative to invite world-class universities to collaborate with existing institutions, participate in clusters, and to set up new universities.

2.5 Accreditation

2.5.1 Accreditation should be made mandatory and the higher education institutions should be free to obtain accreditation for their programs, including post-graduate and doctoral programs, from any reputable global accreditation agency of their choice.

2.5.2 Setting up of accreditation agencies in the not-for-profit sector should be permitted by the government and a list of national and global entities through which an educational institution can get its programs accredited should be published. This list should be updated every year and only be recommendatory in nature.

2.5.3 The corporate sector, being a critical end stakeholder of higher education, has an important role in collaborating with academia in defining quality, outcomes and in keeping curricula up-to-date. The corporate sector can play a key role in the accreditation process. To increase corporate participation in accreditation, industry bodies along with their members, should be encouraged to set up a body for accreditation of Indian institutions for Bachelors, Masters and Doctoral programs.

2.6 Access to funding for students

To bring in competitiveness and upgrade the quality of the institutions, students should be empowered in their choice of institutions. Students should be free to pursue education in institutions of their

choice without worries of finance and have easy access to inexpensive loans. Therefore, there is a need to provide funding not only to educational institutions but also to students. This will provide more opportunities for students to pursue higher education in institutions of their choice.

2.6.1 A scholarship to be named "The Indian Corporate Higher Education Scholarship' should be set up with a corpus of Rs.1,000 crores contributed by the top 1000 corporations of the country. This should be run by an eminent in dependent board. This scheme should be encouraged by the government by providing full matching grants as well as providing tax exemption of up to 300% for all contributions.

2.6.2 All scholarships provided by the government should be consolidated under one comprehensive program with strict penalty for non-repayment and non-compliance of the loan conditions by students. If a student owing such an educational debt wishes to go abroad, clearance should be obtained by the student from the loan agency after giving his or her full address and contact details. Every quarter, every loanee must send a statement on his or her repayment details to the embassy (if he or she is abroad), the educational institution where he or she received the loan, and to the loan granting institution, till the loan is fully repaid. The Indian government should negotiate with governments of major developed countries that any application for permanent residence in those countries should be approved by the Indian loan granting institution only after the loan is fully repaid. Loans given and repayment should be tracked through Aadhaar.

2.6.3 A 'National Educational Loan Fund' of Rs.100,000 crores should be set up by public sector banks to disburse long-tenure loans. This should be administered on a transparent basis. There should be a waiver of 10% on the principal for each year of service in areas of R&D, teaching or any other area of national interest. The loans should be partially underwritten or credit guarantee for the first 20% of loans should be provided by the government.

2.6.4 This should be complemented by autonomy in charging fees subject to adherence to relevant laws including those on a 'reasonable surplus'.

2.7 Research focus

For India's higher education institutions to be truly world-class, research should be fostered in addition to teaching. This is also a huge opportunity for the corporate sector to participate in research by supporting doctoral programs and providing funding for research. They can also directly collaborate on joint research.

2.7.1 A fund to be called 'The Indian Corporate R&D Fund' should be set up with a corpus of Rs. 5,000 crores on the lines of National Science Foundation in the United States of America. This should be funded by the central government and the corporates operating in India. Such a fund operating with a transparent and merit based funding mechanism can act as a huge fillip for R&D in all Indian universities and higher education institutions.

- The fund should be governed by an eminent independent board with industry and academia representation.
- Access to this fund should be available to all (corporates, individual researchers, academic institutions, collaborations) based on a pre-published set of norms.
- The fund should be administered transparently and report performance through public disclosure on a periodic basis (every 2-3 years).
- Tax exemption to corporates to the extent of 300% of their contribution should be provided by the government.
- Doctoral research covering 1,000 doctoral programs in India and 500 in universities abroad should also be supported by the fund. For the sponsored students, both within India and those going abroad, an explicit condition should be imposed on them to work up to five years in higher education institutions in India, on completion of their programs. The conditions stipulated in 2.6.2 should be applicable to these scholarships as well.
- Qualified industry professionals who are on research sabbaticals with educational institutions should also be supported by the fund.

2.7.2 To increase the number of students pursuing post-graduate programs, identified educational institutions should be encouraged to create executive Masters and PhD programs along the lines of those already existing in IITs (as suggested by the Kakodkar Committee) and IIMs. These programs should be open for corporate employees as well.

- Universities should be encouraged to create collaborative 'sandwich degrees' along the lines of existing programs (PGSEM program of IIM Bangalore/MS program of BITS, Pilani) and fast-tracked programs like the executive MBA programs of IIMs and ISB. These courses offer the flexibility to a corporate employee to pursue a degree program while working. Currently, the UGC norms require universities to offer only full-time programs in Masters and PhD programs. This will require change.
- Doctoral programs should be launched to enable the corporate practitioners to pursue these programs with two qualified guides – one from the corporation and the other from the university. This will also promote industry-academia interactions.
- Research should also be encouraged by corporations by providing sponsored research sabbaticals for their employees to work in centers of excellence and pursue PhDs.

2.7.3 Collaboration opportunities should be promoted between academia and corporations for enhancing their level of interaction in education and research.

- A focused research agenda that includes interdisciplinary themes should be published by universities / higher education institutions. Incentives should be provided for the faculty to pursue research and flexibility should be offered to consult and work with corporations to bring in richer real-time business experience.
- To monetize research and scale them further, formal knowledge transfer partnerships with the industry should be established by the universities. This will strengthen the partnerships between the higher education institutions and the corporate sector.
- Internship opportunities should be offered by corporations for students to give them the opportunity to experience a structured, university-approved undergraduate internship during their period of study. This will help in increasing employability of the graduates. This needs to be strengthened through a constructive and continuous interaction between the industry and placement cells of the universities. Such an initiative is important to create awareness about employability standards expected by the industry.
- Alumni participation, as business and alumni mentors to support students, should be encouraged by higher education institutions.

2.8 Faculty development

Availability of adequate and qualified faculty is a pre-requisite for ensuring quality in higher education.

2.8.1 There should be a focused program for retired employees from corporations with relevant experience for a second-career in teaching in higher education, after completion of a short training course. This will directly help the higher education institutions in partially addressing the acute faculty shortage they face today.

2.8.2 Faculty development should be supported by the industry through specific programs focusing on establishing chairs, sabbaticals at higher education institutions and universities, and sponsoring the visits of expert faculty from well-respected global institutions. Such programs should be reviewed by an advisory board with representation from the corporate sector and the academia. Initiatives such as the one conducted by the CII-Western region can be studied for replication in other regions.

2.8.3 High-level apprenticeship programs for post-doctoral students and faculty should be offered by corporations. Such programs will enhance faculty development by allowing faculty to participate in applied research on advanced technologies and business enabling areas, besides maintaining contact with the industry.

2.8.4 To augment faculty resources, the names of the qualified employees who will be available to teach higher education courses, should be published by corporations.

2.8.5 Flexible teaching options for working professionals should be jointly explored by the corporate sector and universities, to share their knowledge with students and faculty.

2.8.6 Industry could help train the academic leaders like Vice-Chancellors, finance officers, administrators, principals and head of departments on leadership skills. Businesses already have in house facilities and trainers for the same purpose and they could leverage the expertise and adopt higher educational institutions in their vicinity for the same.

2.9 Setting up of new facilities by corporates in existing universities and higher education institutions

2.9.1 Models for corporate sector participation should be explicitly laid out for engaging with the top-75 existing institutions with a focus on Institutions of National Importance (INIs), central universities, deemed universities, state universities and established private universities.

- Model 1 – Schools/colleges/institutes to offer degree and non-degree programs ina particular field (e.g. NTPC School of environment at IIT Delhi, Ranbaxy School of Biotechnology at NIT, Suratkal).
- Model 2 - Centers of Excellence to carry out research and also offer their faculty to teach at the parent institution (e.g. Marico Center of Excellence in Innovation at IIM Kashipur, Apollo Center of Excellence in Public Health at Punjab University).
- Model 3 - Teaching & Learning Center to train existing faculty of the parent institution and other institutions from nearby locations (e.g. BHEL Teaching & Learning Center at National Law Institute University, Bhopal, Indian Oil Teaching & Learning Center at Kurukshetra University).
- To facilitate good governance of such relationships, an advisory board should be set up with adequate representation from corporates, educational institutions, and eminent people from the society, at each school/center of excellence/training & learning center,

2.9.2 The top-75 existing institutions should be allowed to set up technology parks on their campuses to foster research and innovation.

- To enable this, the higher education institutions should be allowed by government to lease land on perpetual lease to corporates (including corporate consortia and industry associations) to set up a corporate R&D ecosystem in the form of

research laboratories and technology parks. These facilities should be accessible to the students and the faculty of the sponsoring educational institution.

- Opportunities to the faculty for collaborative research and to publish research papers with the corporates should be made available.
- In addition to land provided by the educational institution, up to one-third of the funding required for these centers should be funded by the government as grants. More opportunities to create intellectual property with adequate royalty sharing among the government, corporate and the innovator (e.g. IIT Madras Research Park) should be allowed.
- It will be worthwhile to invite well-known universities abroad to engage with existing institutions in creating new campuses. Recent experiments such as New York City conducting a contest and selecting Cornell University and Technion Israel Institute of Technology to set up a new engineering campus should be further explored. In this case, New York City provided the institutions with a grant of land in Rooseve lt Island and $100 million for infrastructure improvements.

2.10 Creating New Universities & Higher Education Institutions

2.10.1 The process for establishing public, private and PPP universities and higher education institutions under both the central and state governments should be quick and hassle-free. Approval for fully autonomous institutions should be granted by simplifying norms and establishing clear, transparent, and time bound approval process.

Irrespective of the nature of the promoting entity (including Section 25 Companies), approvals should be based on meeting easy conditions. For every institution of higher education that is set up, only these easy conditions should be met. The university or higher education institution should be required to:

- Sign an MOU with the government clearly stating the institution's aims, objectives and outcomes that will be achieved in the 10-15 years.
- Agree to follow a policy of merit admission (no management quota) with due consideration of diversity, ensuring adherence to law and using innovative and inclusive methods such as multi-deprivation indices.
- Ensure need-based scholarships to at least 10% of students.
- Pay compensation at or above UGC scales (the UGC scale constituting the floor).
- Conduct anacademic review once in 5 years in a transparent manner and the report should be made public.

- Ensure a minimum investment of Rs 500 crores to wards land, capital assets and corpus, to begin with. This investment can be progressively increased to Rs. 1,000 crores.

In case of the institutions engaging in developing solutions in critical and emerging areas of national development like health, education, nutrition, urbanization, and in other frontier technologies, the government can consider funding these institutions. The funding should be linked to achievement of the committed outcomes, without any interference in the provision of full autonomy across the agreed parameters.

2.10.2 The number of institutions offering higher education should be increased by allowing the corporate sector to set up new universities, leveraging their existing infrastructure (land and amenities) and knowledge base.

- Companies which already run large corporate training programs should be encouraged to set up new universities.
- Large corporations which have an R&D establishment should be encouraged to set up full-fledged institutions inside the vast campuses (in excess of 100 acres) to leverage existing infrastructure and benefit from existing laboratories.

2.10.3 Globally, individuals have played a key role in building higher education institutions. India has over 30 companies with annual revenues of over $5 billion and 48 billionaires (US$). Hence, while considering corporate participation in setting up new educational institutions, it is important to look at high net worth individuals who have the necessary resources to contribute to this sector. In this context, the definition of corporates should be expanded to include individuals. This will encourage philanthropic corporate founders, entrepreneurs and individuals to start new institutions or contribute to existing higher education institutions.

- To send out a strong signal that such contributions are welcome, the Committee recommends that a personal invitation from the Prime Minister of India should be sent to 25 Indian corporates and 25 eminent, high net worth individuals to start a university on meeting a minimum set of conditions (see the recommendation 2.10.1) and a commitment from the corporate / individual for the institution to be in the top 250 in the world, over a 15 year period.
- In return, complete autonomy, free land, and central-university status, should be provided by the government for such educational institutions. If an individual or

a corporate is unable to set up a full-fledged university, such entities can set up a center of excellence within an existing institution of their choice.

2.11 Developing New Knowledge Clusters

2.11.1 Locations should be identified in cities where existing higher education institutions, research organizations and corporates can work together for the creation of knowledge clusters to promote innovative national and international research and knowledge partnerships.

- To build on existing knowledge and innovation ecosystems, a list of 10 cities should be drawn based on their potential to create knowledge clusters. In a recent study by the Indian Institute of Human Settlements (IIHS), based on international benchmarks and using criteria of knowledge ecosystem, urban scale and services, socio-cultural climate, and faculty relocation preference, six locations were identified as suitable for higher education institutions - Bengaluru, Chennai, Delhi, Hyderabad, Greater Mumbai and Pune. Ahmedabad, Chandigarh-Mohali, Coimbatore, Gurgaon, Jaipur, Kolkata, Mysore, Raipur and Dehradun-Roorkee may also be included in this list.

2.11.2 Creation of new hubs or clusters involves long gestation periods and requires creation of both direct and supporting infrastructure. Innovative models should be explicitly laid down for the clusters / hubs to promote regional or urban inter-institution clusters and alliances to promote innovative national and international research, leveraging the existing infrastructure.

- A virtual hub which brings together the institutions existing in a particular area should be set up to provide opportunities for students, faculty and corporates to leverage the facilities and the underlying common information infrastructure of these institutions. Opportunities should be provided for students to pursue courses and joint research projects in these institutions which are part of the hub. Bangalore - with its reputable institutions like Indian Institute of Science, Indian Institute of Management, International Institute of Information Technology, National Law School, Indian Institute of Human Settlements, and Institute of Bioinformatics & Applied Biotechnology - is a good location to pilot this concept.

- Existing industrial clusters focusing on specific domains should be encouraged to create thematic knowledge clusters along with existing institutions focusing on thematic knowledge research. For example, Pune (mechanical and automobile

engineering), Chennai (automobile engineering), Hyderabad and Mumbai (pharmaceuticals) and Bangalore (Information technology) could be considered for establishing research centers in their eco-systems.

- Consortia should be formed by the Universities to address business interests which span across multiple domains. A referral system should be established to help the industry understand the capabilities of each university.
- Hubs should be set up by the corporate sector with physical infrastructure, common residential areas, and recreation space. This can be leased to several educational institutions for their operations. This will reduce the entry cost for those who want to set up educational institutions.
- As a variant to cluster models, joint research and educational facilities in specialized areas should be set up through complementary partnerships among existing institutions with corporate participation - e.g. Indian Nano-electronics Users Program set up by IISc, Bangalore and IIT Bombay.
- FICCI's collaborative framework for the National Knowledge Functional Hubs (NKFH) should be considered for implementation. Leading corporations and academic institutions in close proximity can come together as a hub to create and sustain a network of spokes with companies and academic institutions in the region. Each hub can draw strength from collaboration with leading foreign universities and research laboratories.
- To recognize the local priorities, local enterprise partnerships between small &medium enterprises (SMEs) and universities should be promoted. Through these partnerships, the SMEs can leverage the facilities of the universities in the region.

2.11.3 A flexible public-private partnership (PPP) developmental framework should be defined to build local synergies and to leverage existing resources/capabilities to their full potential.

- A flexible institutional framework for public-private partnership should be established. This should be resourced using domestic and global private corporate funding, and innovative partnerships. The policies governing the tax rules and the financial structure applicable to these hubs should also be notified by the government.

The next section details the targeted outcomes and the next steps for implementing the recommendations of the Committee.

3. Targeted Outcomes & Way forward

3.1 Targeted Outcomes

The Committee has identified three targeted outcomes from corporate sector participation in higher education system.

1. **Upgradeupto75'top-of-the-class' universities and higher education institutions** including Institutions of National Importance (INIs), central universities, deemed universities, state universities and established private universities, by setting up schools, centers of excellence and training & learning centers at a typical investment of Rs.175-200crores perinstitution.

2. **Create 20 new 'world class' universities and higher education institutions** by private or public-private partner ship investments via the "Universities for Innovation" or legislation route at a typical investment of Rs.500 crores per institution.

3. **Develop 20 new national knowledge clusters** in identified cities and educational hubs through the public-private partnership model. Funding for these clusters could come from contributions from central and state governments and corporates at a typical investment of Rs.500 crores per cluster/hub.

Mobilizing an additional 5,500 faculty members is another significant targeted outcome. This should be done through a mix of international recruitment (about one-third of the total), development and improvement in the quality of domestic PhDs, and involvement of leading practitioners from the Indian industry. The Committee has also recommended the setting up of 'The Indian Corporate Higher Education Scholarship' and 'The Indian Corporate R&D Fund'.

To deliver on the above outcomes, a potential investment of about Rs.40,000 crores ($8billion) will be required over the period of the 12th Five Year Plan (2012-17). Given the current economic and fiscal situation, these investments are best enabled by pooling resources between the government and the corporate sector.

Source of Funds	Investments
Government of India *Contributions from a mix of higher education sector plan funds and convergence of other sector resources (e.g. Urban Development, Science & Technology, Innovation)*	Rs.15,000 crores
State Governments *Contributions in the form of land grants and institutional investments especially in upgrading institutions and setting up of education clusters and knowledge hubs*	Rs. 5,000 crores
Corporate sector *Contributions incentivized through suitable fiscal incentives*	Rs.20,000 crores

3.2 Way Forward

3.2.1 Aninter-ministerial group should be set up under the Planning Commission to facilitate the implementation of the recommendations of the Committee.

- The ministries which need to work together to bring about the recommended ministry specific policy changes should be identified by the Planning Commission and the setting up of the inter-ministerial group should be initiated. The group should be comprised of the Ministry of Finance, the Ministry of Home Affairs and the Ministry of External Affairs for visas, the Ministry of Human Resources Development (and its agencies -the University Grants Commission, All India Council for Technical Education and the proposed National Commission of Higher Education and Research) for many of the policy changes relating to the higher education sector, the Ministry of Corporate Affairs and the Ministry of Heavy Industry & Public Enterprises. State governments should also be represented in the constituted group.
- A consultation with interested large corporates, public sector enterprises, and a few state chief ministers should be held to ensure that there is commitment to the proposed recommendations and the intended outcomes.

3.2.2 To enhance business and academic collaboration, a nodal agency should be formed to develop a common agenda, focus on quality and channelize investments to higher education in India.

- To set up the nodal agency (refer Annexure), the Committee suggests that the corporates and universities/higher education institutions jointly explore models along the lines of the Council of Industry and Higher Education (CIHE), UK.

4. Annexure

Annexure A: Council for Industry and Higher Education Collaboration (CIHEC) – Concept Note

Genesis

Higher education institutions provide high-level skills, cutting edge research base and help in creation of a culture of inquiry and innovation in industry and businesses. Higher education thus plays a central role in economic growth and the development of nations. The corporate sector in turn provides avenues for employment of the highly skilled and offers problems for research and innovation. However, this is no longer a linear relationship. There is growing interdependence of corporate sector and higher education institutions and both have to engage closely with each other in a variety of ways.

Currently, engagement of the institutions of higher education with the corporate sector (both public and private) is weak and disjointed. In this context, strengthening of engagement between the corporate sector and higher education institutions assumes great significance. In order to do this in a structured manner on an ongoing basis, it is proposed that a nodal agency be established—potentially called Council for Industry and Higher Education Collaboration (CIHEC)—to promote and facilitate industry-institution collaboration in the various domains of higher education and research. CIHEC will be an independent not-for-profit organization founded by contributions from industry and government and will comprise business and higher education leaders.

Goals and Activities of the CIHEC

The goals of the CIHEC span the entire higher education and research landscape including framework development, capacity creation, research, training, and certification. These should be:

- To become a reliable information source for industry-institute collaboration
- To develop new Higher Education Institutes (HEIs) and research parks
- To enhance the quality and quantity of research in existing HEIs
- To promote collaborative sandwich degree programs as well as in-company up-skilling of employees and enterprise-level education
- To promote entrepreneurship at the university level with the support of the corporate sector
- To facilitate skill development at the post-graduate and doctoral levels through high-level apprenticeships and through applied research of advanced technologies
- To provide prestigious internship opportunities for students and to provide entrepreneurial support for staff and students

To fulfill these goals, the proposed activities of the CIHEC include:

- Developing detailed models for corporate sector participation in higher education
- Developing sector strategies for collaboration
- Building a comprehensive repository of good practice on business-university collaboration
- Undertaking commissioned studies
- Defining and updating the definition of employment at various milestones of higher education
- Facilitating creation of clusters and consortia
- Mobilizing support from industry, HEIs, and government for collaboration
- Organizing networking events for building partnerships
- Linking companies in relevant sectors to universities seeking research collaborations
- Institutionalizing a prestigious internship program

Membership & Funding

- The founding members of the organization (both public sector and private sector corporations) will contribute towards the initial corpus. The government could match this contribution.
- Industry members who wish to align with CIHEC's mission can subscribe to its study and task force reports, and can actively engage in collaboration opportunities through CIHEC
- All the renowned universities in the country will be invited to subscribe to the CIHEC.

Governance Structure

The CIHEC will comprise the following bodies:

- A **General Council** comprising representatives from industry and academia, as also representation from key ministries involved in CIHEC's activities. General Council meetings will be presided over by the Chairman of the Executive Council.
- An **Executive Council** comprising a Chairman with a strong reputation in industry and higher education, a Secretary (to function as Chief Executive, a nominee of the Planning Commission to represent key ministries (in ex-officio capacity) and three non-executive members from the General Council. The Executive Council members will be part of the General Council by default.
- A **Secretariat** consisting of full-time staff, experts hired by the Council, and a few others seconded to it by the corporate sector.

The CIHEC will also be authorized to engage with various non-governmental agencies such as external consultants.

Annexure B: Order Constituting the Committee

No.P-11060/49/2011-HRD

Planning Commission

Yojana Bhavan, Sansad Marg,

New Delhi-110001

Dated 13th January, 2011

ORDER

Subject: Formulation of the Twelfth Five Year Plan (2012-17) – Constitution of Committee on Corporate Sector Participation in Higher Education – regarding.

In the context of the formulation of the Twelfth Five Year Plan (2012-17) for higher education, the Planning Commission has decided to constitute a committee to examine and provide recommendations on the potential and modalities for corporate sector participation in higher education in support of development of national Education and innovation hubs and the Institutions of National Importance (INIs)/Centres of Excellence, and models for industry-institute interaction to act as catalysts of innovation and sustainable and inclusive economic and regional development. The composition of the Sub-committee shall be as follows.

1) Mr. N.R. Narayana Murthy - Chairman

2) Mr. Kiran Karnik, former President NASSCOM – Member

3) Professor P. Balaram, Director, IISc Bengaluru - Member

4) Mr. R. Gopalakrishnan, Member-Secretary, National Innovation Council - Member

5) Mr. Naushad Forbes, Forbes Marshall – Member

6) Dr. Ashok Misra, former Director, IIT Bombay – Member

7) Dr. Achyuta Samanta, Founder KIIT University - Member

8) Mr. Sudhir Vasudeva, CMD, ONGC – Member

9) Mr. Arup Roy Choudhury, CMD, NTPC – Member

10) Mr. Pramath Raj Sinha – Member

11) Mr. Anand Sudarshan, Managing Director & CEO, Manipal Education – Member

12) Mr. Aromer Ravi, Director, IIHS, Bengaluru – Member

13) Mr. R. Gopalakrishnan, Director, Tata Sons - Member*

14) Mr. Amit Khare, Nominee of Secretary, Higher Education, Govt. of India – Member

15) Mr. A.S. Bhal, Nominee of Secretary, Urban Development – Member

16) Professor S. Sadagopan, Director, IIIT Bangalore – Member*

17) Mr. T. V. Mohandas Pai, Chairman, Manipal Global Education Services - Member*

18) Mr. Dileep K. Ranjekar, CEO, Azim Premji Foundation - Member*

19) Mr. Pawan Agarwal, Adviser (Higher Education), Planning Commission – Member

20) Professor Pankaj Chandra, Director, IIM Bengaluru – Member Secretary

21) Mr. V. Ganapathy Subramanian, Infosys – Rapporteur*

3. The specific terms of reference of the Committee are -

1. Reviewing the international and national experience of corporate involvement in creating and supporting Education and Innovation hubs & Clusters and Institutions of National Importance (INIs) / Centres of Excellence;

2) Assessing the key constraints faced by corporates in investing in Indian higher education and the associated legal and regulatory challenges;

3) Delineate the role of the PSU and private sector in this process. Assessing the policy measures and institutional mechanism necessary to increase PSU and private sector involvement in higher education;

4) Developing guidelines for the development of national Education Hubs and clusters around new and existing Centres of Excellence/INIs and Models for Industry-Institute Interaction. More specifically

a) Broad guidelines of the necessary conditions for their successful development;

b) Their potential size, number and location to enable an appropriate regional spread of innovation-led economic development;

c) Defining parameters for land mobilization/acquisition and development;

d) Outlining the time frame, sequencing and potential volume of investment required and possible models of financial structuring including a mix land grants, CSR and tax incentives;

e) Identify entry and exit criteria for establishment of universities and their incorporation process in the hubs; and

f) Outlining the potential institutional arrangements and necessary policy changes required to develop these hubs in PPP-mode.

5) Identifying potential PSU and corporate partners willing to participate in this process; and

6) Defining a road map for implementation and the ToR for a detailed study required to support this process.

4. The Chairman of the Committee may co-opt additional members and invite other persons or experts for all or any of the meetings of the Committee. To facilitate its work, the Committee may decide to appoint an external consultant in terms of revised procedure and guidelines for outsource / external consultancy work issued under OM No. M-11016/1(4)/2010-PC dated 10th August, 2011. The Committee will submit its report within 30 April 2012.

5. The expenses towards TA/DA of the official members will be met by the respective Governments/Departments/Institutions to which they belong. Non-official members will be entitled to travel by Executive Class of Air India and their expenditure towards TA/DA (as admissible to Grade I officers of the Government of India) will be paid by the Planning Commission. This is issued with the approval of the Deputy Chairman, Planning Commission.

Sd/-

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** The members were co-opted by the Chairman of the Committee.*

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