

I. Ninth Meeting of the NMCC held on 25th July 2007.

The Chairman, NMCC sharing his views with the members on the healthy growth of around 12.5% in the manufacturing sector in the recent past, reiterated that though manufacturing share is far below the ideal level of about 35% of GDP, the main concern is to ensure that the present growth momentum of the manufacturing sector is sustained over the longer term. He said that to get a sense of investment increase in different sectors through studies etc. to give a good basis for giving directions to the next phase of growth process of manufacturing in country.

Chairman said that all ministries notably the Ministry of Finance and the Planning Commission have been giving full support to the NMCC in attending to several issues and problems. Chairman, NMCC also apprised members about the discussions with the Governor of RBI on the credit and funding problems of the manufacturing sector in general and the SMEs in particular. He said that the entire Board of Reserve Bank of India was appreciative of the points raised by the NMCC and the Governor, RBI promised to look into them and work with the NMCC in future also.

Chairman, NMCC also referred to the progress made in respect of the priority sectors identified by the HLCM, viz. Food Processing, Textiles & Garments, Leather & Leather Products and Electronics and IT Hardware for fast track decision making. He informed that the issues of Ministry of Food Processing have been resolved at the HLCM and now they need to be implemented. An action plan regarding Textiles & Garments Sector has been taken to the HLCM for decisions which would help foster competitiveness in the sector. The action plan in Electronics and IT Hardware is in final stage of decision making. Chairman, NMCC emphasized that Electronics and IT is a thrust area for the country. In the context of the requirement and likely supply of hardware and electronics, he opined that there is going to be a huge gap between the requirement and supply in IT Hardware and Electronic Sector going by the present model. Against a projected requirement of US \$320 bn. worth of Hardware by 2015, the present plan is to raise domestic production to only \$150 bn. and this requires to be revised.

Chairman, NMCC, referring to the generic problems of skill shortage in the country, said that the Ministry of Human Resource Development is looking into the issues of higher education. He apprised the members that the IIM and IITs have joined hands to come up with the prestigious VLMP

programme for making leaders in the manufacturing sector in collaboration with the Govt. of Japan. He said that in August when the PMs of India and Japan meet, the VLMP programme will get the required thrust. He expressing concern about the large segment of young population who are school dropouts has suggested that the real challenge is how to engage this segment of our young population in gainful employment by appropriately harnessing them to the needs of labour in the manufacturing sector after imparting appropriate skill training.

Chairman, NMCC, commented that in the USA the President of United States has earmarked more than a hundred billion dollars for encouraging people to take up study in engineering, science and to build scientific temper in the country. Something on these lines is required in our country as well to build up a scientific temper and develop skills to meet the needs of the Economy and the Manufacturing Sector. He said that the myriad of problems at the ground level are obvious; but at the same time, we all should evolve a practical approach to deal with the issues for creating talent pool for Research & Development which will help in maintaining the momentum of growth.

The Member Secretary, NMCC has presented a brief on the agenda items of the 9th meeting. He informed that a request has been made to the PMO to include the VLMP programme in the scheduled meeting of the PM of Japan when he visits India in August. On the issue of the FTAs he informed that the NMCC has submitted a report in June, 2005 highlighting the advance steps to be taken before engaging in new FTAs and RTAs. He suggested that the apex industry associations must take up the issue of identifying the list of sensitive products to be included in the free trade agreements of different countries more professionally for avoiding subsequent difficulties to the domestic industry. He mentioned that as envisaged in the NSM, the NMCC will continue to engage competent Organizations for undertaking studies which will provide new ideas for enhancing the competitiveness of various sectors. Giving his reaction to the skill development, he informed that a programme with outlay of Rs.550 Crores has been formulated by the Ministry of Labour. Industry should try to make the best use of it. Similarly the Ministry of MSME should avail the benefits of the scheme of the Ministry of Labour for skill development to help the SME Sector particularly by organizing short duration training modules for different manufacturing sectors.

The 9th Council meeting discussed the following 4 Agenda items.

The first agenda item: Progress of the work since the last meeting of the NMCC on 2nd April 2007. The following are the highlights of the agenda item:

Chairman, NMCC has written to the Members of the NMCC a D.O. letter No. 4/1(9)/NMCC-2007 dated July 6, 2007 explaining briefly work done by the NMCC since the last meeting. This note gives fuller details of the same.

I. Growth Momentum in Manufacturing:

- i. The Manufacturing Sector continued on its rapid growth path during the last three years going up from 8.7% in 2004-05 to 9.1% in 2005-06 and further to 12.5% in 2006-07 It grew at 14.1% in March and 15.1% in April 2007 respectively thus indicating its continuing surge. The share of manufacturing in the GDP has increased to 15.5% in 2006-07 from 15.1% in 2005-06. The challenge now before the nation is how to sustain this growth momentum to achieve a long-term growth rate of manufacturing of 12-14 percent. The present growth has been stimulated by strong fundamentals like augmented FDI, increased credit flow, export growth, improved productivity among others. Estimates of investments in the Manufacturing sector have also shown a remarkable increase from Rs. 2 lakh crore in June 2004 to Rs. 12.7 lakh crore in the quarter ended in March 2007.
- ii. The foreign exchange reserves have crossed US\$ 200 billion. Foreign trade is growing at a rate of about twice the growth rate of GDP. The Exports in April-May, 2007 have registered an increase of 20.37 %compared to the same period last year.
- iii. The cumulative rate of industrial growth during April, 2007 over the corresponding period of 2005-06 was 13.6 per cent. The Sectoral growth rates in April 2007 over corresponding period of previous year are 8.9 per cent in Basic goods, 17.7 per cent in Capital goods and 12.6 per cent in Intermediate goods. The Consumer durables and Consumer non-durables have witnessed growth of 5.3 per cent and 21.9 per cent respectively; with the overall growth in Consumer goods is 17.7 per cent. The growth in the manufacturing sector was also supported by good performance of the Electricity (7.2 per cent), Mining and quarrying sectors (5.3 per cent).
- iv. The story of manufacturing growth so far has been a happy one. However, the recent rupee appreciation, among others, is expected to exert some pressure on some of the export-oriented sectors and lower their revenue growth rates in the long-term and profit margins

in the short-term. These aspects require close monitoring and necessary action.

II. Second Meeting of the High Level Committee on Manufacturing (HLCM)

1. The Second meeting of the HLCM was held on 19.4.2007 under the Chairmanship of the Hon'ble Prime Minister.
2. At the second meeting of the HLCM the follow up action taken on the decisions of the First Meeting as well as the detailed Action Plan relating to Food Processing Industries prepared by the NMCC in consultation with the Ministry of Food Processing Industries was considered . Chairman, NMCC informed the HLCM of the progress of work done since the first meeting of the HLCM. The main aspects covered were:
 - i. that the Empowered Sub-Committee(ESC) of HLCM has been constituted;
 - ii. that four meetings of the ESC of the HLCM were held in which the six priority sectors identified by the HLCM were discussed;
 - iii. that detailed agenda item on the action plan for the growth of the Textiles & Garments sector would be brought to the next meeting of the HLCM for appropriate decisions;
 - iv. that DIPP would prepare a detailed action plan on Leather and Footwear sector urgently and send it to the NMCC which would suitably be taken to the ESC for consideration;
 - v. that the suggestions on the draft report of the Group constituted for the growth of IT Hardware & Electronics sector will be sent by the NMCC to the PMO shortly after which it will be taken up for consideration of the HLCM;
 - vi. that the report of the Committee on Skill Development set up by the Planning Commission is yet to be finalized and would be considered on its receipt;
 - vii. that the Visionary Leaders for Manufacturing Programme (VLMP) will be launched by IITs, IIM and CII during the current year; and
 - viii. that approvals for the National Manufacturing Competitiveness Programme (NMCP) at EFC level need to be put on fast track by the Finance Ministry and Planning Commission.

The NMCC has promised to pursue all these matters and bring them up to the HLCM for appropriate decisions.

3. Coming to the specific item on Food Processing Industries in the HLCM, based on the recommendations of the NMCC it was decided to:
 - i. Give highest priority for the six sub-sectors including the Food Processing Industry identified by the HLCM and to ensure necessary approvals are taken up on a fast track basis;
 - ii. Approve in principle the long-term goals for the Food Processing sector detailed in the note for the HLCM;
 - iii. Support the programmes of the MFPI indicated in the Note placed before the HLCM. The Planning Commission will make adequate allocation for the food processing sector in the Eleventh Plan to enable higher growth rate of the sector;
 - iv. Initially limit the number of projects to be taken up under each programme and as confidence develops, to increase them as proposed;
 - v. Take up Five food parks on a fast track mode. It was also agreed that the MFPI will try both the models. Two parks on the model that had been proposed by the MFPI and the other three as suggested by the Deputy Chairman, Planning Commission, and the Finance Minister. In both cases it has to be transparent competitive process. MFPI, Planning Commission and NMCC will together work out the detailed concept for both the models;
 - vi. Discuss Food street/street food programme with the Planning Commission;
 - vii. On taxation issues, NMCC after studying the note forwarded by the Finance Minister on the latest status, would write to the Finance Minister if any more actions are required;
 - viii. Speed up EFC and other relevant procedures relating to the six priority sub sectors. Expenditure Secretary would review periodically and report to the Empowered Sub Committee of the HLCM;
 - ix. Set up the coordinating mechanism proposed in the Note for dealing with four other policy issues; and
 - x. Authorize the Empowered Sub-Committee of the HLCM to coordinate any other Inter-Ministerial issues relating to the food processing industries and come up to the HLCM as required.

It was also decided by the HLCM that a group could be formed to discuss the issues relating to the impact of recent changes in respect of interest rates, exchange rate and tariff reductions on the growth of the economy, in particular, on manufacturing and employment.

III. 5th Meeting of the Empowered Sub-Committee (ESC) of the High Level Committee on Manufacturing (HLCM):

The 5th meeting of the ESC was held under the Chairmanship of Chairman, NMCC on 6.6.2007 at New Delhi. The progress made in the six priorities sector areas identified by the High Level Committee on Manufacturing and in particular, the progress relating to Food Processing Industries sector was reviewed:

a) Food Processing Sector:

- Decisions taken in the HLCM meeting need to be followed up by the Ministry of Food Processing Industry (MFPI), progress monitored and reported to the HLCM periodically;
- A detailed study is required to identify the paradigm shifts happening in the Food Processing segment and also in the packaging segment of the industry.
- Further details on the follow up work done would be presented by the Secretary, MFPI separately when the subject is discussed in detail.

b) Textile and Garments Sector

- A base paper for decisions by the HLCM has been prepared in consultation with the Ministry of Textiles. This was based on the discussions at the ESC at the previous meetings. The paper would be discussed by the HLCM at its next meeting.

c) Leather and footwear Sector

- It is understood that a study report on this sector has been prepared recently by Council for Leather Exports (CLE). Department of Industrial Policy & Promotion (DIPP) is yet to prepare the Action Plan and send it to the NMCC to enable them to put up for the consideration of the ESC.

d) IT and Electronics Sector

- In respect of the IT and Electronics sector, a Task Force has been set up by the PMO chaired by the Principal Secretary to PM;
- The NMCC has given its detailed comments on the report prepared by the Sub-Group of the Task Force;

- After due consideration by the Task Force on the comments, an Action Plan would be prepared for the consideration of the HLCM.

e) **Skill Development - Visionary Leaders for Manufacturing Programme (VLMP)**

- The Visionary Leaders for Manufacturing Programme (VLMP) has been initiated and formally launched jointly by Indian Institute of Management, Calcutta (IIMC), Indian Institute of Technology, Madras (IITM), and Indian Institute of Technology, Kanpur (IITK), the CII, and the MHRD as an initiative under the Indo-Japan Cooperation Programme on the recommendations by NMCC which is unique in its design and content.
- The Task Force appointed by the Planning Commission under the chairmanship of Shri Tarun Das has submitted its draft report. This report considers only the Vocational Education and Training part. Skill development is required at all levels and the NMCC is in the process of preparing a comprehensive paper on this.

f) **SME Sector**

- The Chairman, NMCC held a meeting with the Governor and Senior RBI officials in Mumbai on the impact of recent macro economic changes such as rupee appreciation, higher interest rates on growth of Manufacturing sector. He also discussed specially the problems faced by the SMEs.
- The National Manufacturing Competitiveness Programme (NMCP) is yet to be approved in spite of the fact this has been in the works for nearly 18 months. There is need to speed up the process with periodical reviews by the Secretary, Expenditure and the Planning Commission.

Secretary, Food Processing Industries gave a brief on the Food Park Scheme, the highlights of which were:

- The Five food parks are being set up on fast track mode. Three parks are on the model proposed by the Planning Commission and the other two are as proposed by Ministry of FPI on the lines of the SITP scheme.
- The basic format is to operate on the principle of being transparent and ensuring competition at every stage.
- The location of each of the parks is to be decided on the basis of laid down criteria through a competitive selection process based on well laid out basic parameters.

- The main focus is to enhance investment and generate employment in the sector.

The main decisions/points that emerged from the deliberations of the ESC of the HLCM were:

- The detailed suggestions of the NMCC have been sent on the draft report of the Group constituted for the growth of IT hardware and Electronic sector. After hearing from the PMO further steps would be taken to bring it to the HLCM.
- In the IT and electronic sector emphasis is needed on skill development for sustained growth.
- The National Manufacturing Competitiveness Programme (NMCP) needs to be approved at the earliest for which necessary instructions to the Expenditure Secretary for periodic review have been issued by the Finance Minister. This may be followed up.
- In respect of the Food Processing sector the Planning Commission and the Ministry of FPI have sent their models of building the Food Parks to the NMCC which would be finalized after discussions with the Deputy Chairman, Planning Commission.
- The MFPI would come with a detailed status note in respect of the Inter-Ministerial issues relating to the food processing industries which require resolution.
- Detailed tax proposals as suggested by the Advisor to FM would be prepared by the MFPI and sent to the NMCC at the earliest.
- Leather sector has tremendous potential for growth and employment. DIPP would send a detailed Action Plan including programmes and policies to meet specific medium and long term growth targets for production and exports which will be discussed in the ESC for onward processing to the HLCM.
- The Action Plan for the Textiles & Garments sector as considered and decided by the ESC of the HLCM in its last meeting would be put up to the HLCM at its next meeting.

IV. Third meeting of the HLCM

Third meeting of the HLCM was held on 21.6.2007. The HLCM discussed the note prepared by the NMCC on Textiles and Garments sector and approved the plan of action. The minutes of the HLCM are awaited as on the date of preparation of this note. At the HLCM meeting, the Prime Minister complimented the Chairman, NMCC for the excellent work being done by the NMCC and hoped that efforts will be continued to ensure rapid growth of manufacturing sector for which his full support is available.

V. Sub-Group Meetings

- (i) **Meeting of the Sub-Group on Public Sector Enterprises –** Meeting of the Sub-group on Public Sector Enterprises (PSE) was chaired by the Chairman, NMCC on 10.4.2007. The following points were noted for further action:
 - a) Role of the public sector in this changed economy should be clearly defined.
 - b) Some identification of role in economic terms needs to be done.
 - c) On competitiveness, public sector should be projected against the private sector by suitable benchmarking.
 - d) Major initiatives need to be taken to tackle the procedural problems.
 - e) Public sector autonomy with necessary checks and balances needs to be put in place.
 - f) R & D, Profit and Technology issues are to be addressed in an integrated way, as profit alone would not be indicative of the competitiveness of a PSE. Long-term competitiveness can come only through constant improvement in productivity and through innovation by producing new products.
- (ii) **First Sub-Group meeting on Textiles Machinery -** The First Sub-Group meeting on Textiles Machinery (TM) was chaired by the Chairman, NMCC on 10.5.2007. The following issues were identified for further action.
 - a) In order to revitalize the textile machinery segment a comprehensive policy need to be formulated immediately.
 - b) The consequent programmes and schemes for enhancing the TM segment will be initially designed by the Textile Machinery Manufacturers Association (TMMA) and the Confederation of Indian Textile Industry (CITI) and which will be further fine tuned in a meeting to be held at the NMCC with all the concerned stakeholders including the main industry players and the Textiles and the Heavy Industry Ministries.
 - c) The textile machinery segment is in dire need of advance technology and know-how for meeting the potential demand; hence it is imperative to continue the import of advanced machinery with a calibrated approach with an appropriate regulatory mechanism for ensuring the age and the level of technology being imported. The issue will be

taken up by the Heavy Industry Ministry with concerned authorities.

- d) Special incentive packages need to be developed for attracting investment in innovation and R&D in the TM segment.
- a) Concerted efforts are required to boost the development of textile machinery clusters, which will give the impetus for supporting the SITPs and the T&G sector as a whole.

(iii) **Meeting of the Sub-Group on Skill Development** - The meeting of the Sub-Group on Skill Development was taken by the Chairman, NMCC on 14.5.2007 to address the issues relating to creating semi-skilled manpower in a number of sectors in manufacturing in view of likely huge shortfalls in these skills. The focus of the meeting was on skill development for imparting skills to mostly school dropouts for a short duration of two to three months and makes them employable. In this direction, there are three important issues which need to be looked into:

- a) Identifying the dimension of the problem i.e. estimation of the requirement.
- b) Nature of the structure to be instituted to address the problem and the sequence of the process to be undertaken.
- c) Evaluation of the possibility of implementing the solution through PPP mode.

The following points of action were noted for further action:

- a) Need for a practical solution to the problem of skill development through combined efforts of the Government industry and stakeholders.
- b) A large number of different types of arrangement will be required to produce the requisite number of trained persons. Individual Ministries would administer the different types of training.

(iv) **Meeting of the Sub-Group on ICT in Manufacturing Sector** - The meeting of Sub-Group on ICT in manufacturing sector was held on 15.5.2007 under the chairmanship of the Chairman, NMCC. It was informed that the NMCC has initiated two programmes for enhancement of ICT applications in the manufacturing sector:

- a) The first programme is the National Manufacturing Competitiveness Programme (NMCP) with a total project cost of about Rs. 900 crores for SMEs. The NMCP has been designed to accelerate the ICT usage in the SMEs. The

Ministry of MSME is implementing this programme mainly for Small and Medium Enterprises. The NMCP has conceptualized and devised by the NMCC more than a year back and is now in the advance stage of final stage of approval.

- b) The second programme was taken as pilot project with Microsoft in the name of Project "Vikas". Under this programme a National Portal on manufacturing has been launched on the June 19th 2007 besides selection of three clusters at Ahmedabad, Tirupur and Pune for ICT intervention at cluster level. Based on the feed back another three clusters would be taken up. Apart from above, NMCC is also exploring the various ways to enhance the IT penetration in Indian manufacturing sector.

It was decided to hold a coordination meeting amongst various stakeholders and to set up a Task Force as proposed by Development Commissioner (SSI) to look at and suggest improvement to various schemes, activity idea etc. for better operationalization of the programmes to make manufacturing industry more competitive. It was also informed that Government is contemplating a growth rate of 12-14% which can be achieved only through higher adoption of ICT tools in manufacturing sector.

VI. Presentation by Gems & Jewellery Association:

The Gems and Jewellery Association made a presentation before the NMCC on 8.5.2007. It was resolved that for achieving higher growth, various issues needs to be prioritized like the setting up of gold trading hub, diamond trading hub, reduction in turnover tax, blending of traditional and modern needs in products, waste reduction, skill upgradation, higher productivity, harmonizing taxes and duties etc with a long-term growth perspective of the sector. It was agreed that the Association will come up with a revised presentation based on the inputs at this meeting.

VII. Meeting on Skill Development and Training for the growth of IT Hardware and Electronics:

A meeting on the skill development and training for the growth of IT Hardware and Electronics Sector was held on 1.6.2007 with the representatives of the industry and the Department of Information & Technology (DIT).

After due discussion it was felt that skill development in respect of IT would need the following issues to attend to meet the short, medium and long-term requirements of the industry.

- i) The underlying principles in skill development need to be:
 - a) Flexibility, i.e., openness to accommodate the needs and requirements of the industry.
 - b) Public Private Partnership (PPP) to address this crucial issue on a large scale.
 - c) Short duration courses using existing infrastructure by way of optimum utilization of available infrastructure of ITIs and Polytechnics etc..
- ii) Identify skill shortages prevailing in the IT Hardware and Electronic Sector at various levels over the long-term right from the level of semi-skilled workers to the ITI certificate holders, diploma holders and those with higher qualifications like Graduate, Post Graduate and Ph.Ds. etc. The industry has projected a requirement of 3 million as direct jobs and 7 million as indirect jobs to be created in the sector by 2011.
 - i) Need for credible accreditation system so that skilled person can work anywhere based on his/her skill.
 - ii) Upgrading/promoting ITI holders to Diploma levels through some mechanism.
 - iii) Address the issue of inverted pyramid, i.e., availability of ITIs and Diploma holders' vis-à-vis graduate engineers.
 - iv) Work out a way to resolve the issue of autonomy and State Government control over ITIs and Diploma Institutes.
 - v) Exploring the possibility of setting up of new ITIs and Diploma Institutes through proper encouragement of the private sector.
 - vi) Training enough people by industry itself particularly, the large and medium sized industry.
 - vii) Address the issue of adopting ITIs by industry. Industry has to take initiative by identifying particular ITIs and diploma institutes closer to the industry and put up their scheme and requirement regarding their management, infrastructure, curriculum etc. and take up with Ministry of Labour through DIT under the scheme for upgrading of 500 ITIs announced by the Finance Minister.
 - viii) Identify the type of programmes required for them and referred to the recently cleared scheme by the Cabinet of Rs.550 crores on a PPP Mode for which Ministry of Labour through DIT can be approached. Constitution of Working Group under the Additional Secretary, IT with a representation of all the stakeholders for looking into

various aspects for the implementation of the schemes viz. identification of ITIs, methodology, speeding the approval process etc. in which the NMCC can also be represented to facilitate implementation.

- ix) Commissioning of a study by Department of IT in consultation with the industry and the NMCC for setting long-term goals as well as action required to meet the goals.
- x) Department of IT to request the Planning Commission to allocate a lump-sum amount for the purpose of specific IT related skill development as part of the 11th Plan.

VIII. Visionary Leaders for Manufacturing Programme (VLMP)

- Third Meeting of the Apex Committee on VLMP - Third meeting of the Apex Committee on VLMP was held on 3.4.2007. The modalities of the two opportunities A & B under the VLMP were discussed. It was decided to follow the calendar of events as planned to commencement of the programme on 26th August 2007.

In respect of Opportunity 'B' -

- The DPR would be recommended by the Apex Committee to the MHRD with the minor changes discussed at the meeting.
- The list of faculty which needs to be trained will be furnished.
- The type of training inputs required will be worked out and seats.
- The assistance from Prof. Shiba including a list of resource persons would be suggested.
- A timetable to be prepared for the media launch first and then for the inauguration of the programme.
- Future capital expenditure programme to be prepared and taken up with the MHRD.
- Type of experts required for Opportunity 'A' and 'B' to be worked out for JICA funding and also otherwise.
- The advertisement for Opportunity 'B' should be released quickly based on the discussions. Connected activities should be taken up in a time bound manner to ensure successful conduct of the course.

In so far as Opportunity 'A' is concerned -

- The progress so far made is good and full details may be worked out for JICA and other Japanese assistance.

- The theoretical content and participation of IIMs and IITs in Opportunity 'A' need to be worked out in consultation with them.
- In so far as Opportunity 'C' is concerned JS, NMCC and CII will work together and come up with a detailed proposal for Chairman's approval by 30th April, 2007.
- The Opportunity 'D' of the VLMP needs to be further discussed based on the draft prepared by IIM-C. SMEs including concerned members of NMCC need to be involved in this exercise. It should be aimed to start the programme by 1st January, 2008. Several institutions will need to be involved in the implementation of the Opportunity 'D' of the VLMP. JS, NMCC will follow up on this.

Chairman, NMCC said that additional members would be included into the Apex Committee to make the programme a success. He also emphasized that priority should be given for in service candidates in admission to the course. In respect of all the Opportunities, the three institutions and CII should cooperate fully with each other to ensure that all of them become successful.

(b) Fourth meeting of the Apex Committee on VLMP - The fourth meeting of the Apex Committee on VLMP was held on 18.6.2007. The following action points to be taken in a time bound manner were discussed:

- Experts required for Opportunity 'A' and 'B' to be selected and Form A1 is to be filled and dispatched to JICA after signing of the records of discussion (ROD) in July. In so far Prof. Shoji Shiba's programme is concerned the necessary papers may be sent early.
- The theoretical content and participation of IIMs and IITs in Opportunity 'A' need to be worked out in consultation with them.
- In so far as Opportunity 'C' is concerned, the NMCC and CII would work together and come up with a detailed proposal for Chairman's approval by 31 July, 2007.
- With a view to start the VLMP programme 'D' by 1st January, 2008, IIM Calcutta should work out a Detailed Project Report (DPR) in consultation with other institutions and CII. The draft DPR should be submitted to the NMCC by 30.09.2007 for discussion.

After the Apex Committee meeting, the approved minutes of the meeting(MOM) between JICA and the Authorities concerned of the Government of India on Japanese Technical Cooperation Project

for VLMP was signed by Mr. Takeshi Takano from Japanese side and Mr. Rajeev Ranjan, Joint Secretary, NMCC and Ms. Seema Raj Director MHRD from Indian side in the presence of Chairman, NMCC and other Members of the Apex Committee. The ROD to the MOM is required to be signed in July, 2007 after formal approval by both the Governments.

IX. Project Vikas

1. The NMCC, in partnership with the Microsoft Corporation (India) Pvt. Ltd., is endeavouring to improve the overall competitiveness of the Indian Manufacturing sector. In this direction “**Project Vikas**” Portal has been launched on 19.6.2007. Project Vikas is a stepping stone in this direction. The objective of Project Vikas is to address the development of soft skills including cluster-level networking and common challenges using ICT through creation of R&D linkages, capacity building with regional training institutes, sharing of best practices and enabling linkage within the SME cluster eco-system in 25 clusters across the country. This will enhance the competitiveness of the manufacturing units in SME sector using the “Cluster Development Approach”. To start with, three clusters - namely Textiles Cluster in Tirupur, Pharmaceuticals in Ahmedabad and Automotive Components Cluster in Pune have been taken up as “Pilot Projects”. The Leather Clusters in Agra and Chennai, Auto Cluster in Chennai and Textiles Cluster in Ludhiana are being taken up in the second phase.
2. Under umbrella of the Project Vikas a “National Manufacturing Portal” has been created by the National Manufacturing Competitiveness Council (NMCC) with active support from the Microsoft Corporation (India) Pvt. Ltd. to span and link clusters across India as well as for supporting backward and forward linkages. The portal will provide a single point entry for the manufacturing sector units to interact with each other, their customers and suppliers, financial institutions, training institutions and the Government and other regulatory agencies. This portal will also provide access to learning content through e-Learning modules and also will cover the common issues of the clusters cutting across themes like methodological issues and global developments impacting industrial development in general and clusters in particular. Some of the highlights of the National Manufacturing Portal are as under:-
 - Knowledge base on different manufacturing sectors/sub sectors
 - Data bank on Micro, Small and Medium Enterprises (MSMEs)
 - Empowerment of MSMEs through ICT

- IT guides on hardware and software
 - Resources on Indian and international clusters - Database of different clusters, updated directory information and applications to find companies and clusters on India map.
 - Geographical cluster locators - a new tool
 - Central and State Governments Industrial Acts, Policies, Scheme, Incentives, etc. for the manufacturing sector - important useful forms for taxes, etc.
 - Credit and finance related important areas for MSMEs including different policies, schemes etc.
 - IPR information to achieve niche competitiveness
 - Market information to increase market access
 - Select articles and publications in the area of competitiveness
 - Related useful links
3. The programme will support the long-term growth and competitiveness of the SMEs in selected clusters in India:
- To increase growth and competitiveness of existing companies by creating internal efficiencies
 - To establish new Information and Communication Technology (ICT), Business Development Service (BDS) providers, including spin-outs from academic or Industrial Research and Development (IRD)
 - To include the development of local market for ICT goods and services in India through growth of a local software ecosystem and increasing IT penetration
 - Improve SMEs access to market by optimizing the use of ICT.

Project Vikas has a long-term objective of increasing competitiveness of the Indian manufacturing sector, through a combination and multi-dimensional strategies which will include:

- a) **Using ICT as a medium to revamp access to market:** Enhanced access for SMEs for direct and faster transactions.
- b) **Apt and focused training for refining skills and creating human capital:** Upgradation of existing local manpower enables SMEs to tap local talent.
- c) **Evolving internal efficiencies:** Intense ICT intake and automating procedures for reducing costs and enhance capacities for accessing, and information sharing.

- d) **Commencement of 'Knowledge Networks':** Networking with low-cost and relevant R&D linkages to stimulate innovation and ensure continuous product improvement.
- e) **High level IT penetration and practice in the manufacturing sector:** Weak penetration of IT has been identified by NASSCOM as one of the key reasons for the low competitive ability of the SMEs.
- f) **Advancing enlargement of a local software ecosystem:** To fortify IT absorption and put forward relevant customized solutions, currently the missing link in the chain.

Project Vikas will incubate and nurture on ecosystem of Independent Software Vendors (ISV) to ensure continued, high quality and relevant ICT support to the clusters.

- g) **Project Vikas Implementation Methodology:** SMEs usually face a comparatively uncertain environment and entrepreneurs often have a short-term time horizon. This means the decision to implement ICT depends on the intuition of the entrepreneur - which is subject to his training and experience, his perceptions with respect to policy changes and the economic conditions in the future. Cluster Development Approach (CDA) provides critical hand holding on the above mentioned issues.

- h) **The three phases of implementation of Project Vikas:**

- **Phase I:** Understanding cluster needs, preparing a cluster action plan, improving local participation in cluster level activities.
- **Phase II:** Improving skill based on the action plan, with an aim to increase the ICT in the business process.
- **Phase III:** Increase in productivity due to ICT usage in different firms and organizations in the cluster.

- i) **Impact of the program:** Innovative changes in management, technology, access to information faster decision making.

- Make use of ICT tools to upgrade efficiency level to sustain future growth
- Develop breakthrough methodologies to create higher efficiency that will empower the manufacturing SMEs, even in the new global environment
- Initiate action to bridge the gap between future challenges and existing constraints
- Enhance internal efficiency, leading to better growth and competitiveness.

The second agenda item: Progress of the National Manufacturing Competitiveness Programme (NMCP): The following are the highlights of the agenda item:

The NMCP has been conceptualized and finalized by the National Manufacturing Competitiveness Council (NMCC) through deliberations with the stakeholders like the Ministry of MSME, the industry, other organizations and experts. The aim of NMCP is to equip the SMEs to face the severe competition both domestically and abroad. The cluster approach has been adopted for improving the competitiveness of the SMEs. The comprehensive NMCP has been evolved through deliberations at various levels and its operationalisation will mitigate the challenges faced by the SMEs through enhancing the internal(firm level) competitiveness and also by facilitating their growth in terms of interventions through policy packages including ICT, Design Clinics, Lean Manufacturing, Quality Campaign, Common facility centres, Marketing etc.

2. The key objective of the NMCP is to provide overall support to the SMEs to become competitive. It has been conceived mainly to deal with leveraging resources for enhancing firm level competitiveness in the emerging competitive regime. Further, a holistic approach has to be adopted through initiatives like the MSME Act 2006, the Package for Promotion of Micro and Small Enterprises (MSE) with a major push for credit guarantee fund for developing the Micro and Small Enterprises Development Programme, which include cluster based development by providing common facility centers for clean processes, technology, energy saving processes & skill adaptation, quality & testing, establishment of risk capital fund, Portfolio Risk fund etc. For the comprehensive revitalization of the SMEs sector, the NMCP has formulated the following schemes:

- i. National Programme on Application of Lean Manufacturing
- ii. Design Clinic scheme to bring design expertise to the Manufacturing Sector
- iii. Promotion of ICT in Indian Manufacturing sector
- iv. Mini-Tool Rooms proposed to be set up by Ministry of SSI.
- v. Technology and Quality Management Support for SMEs.
- vi. Support for Entrepreneurial and Management Development of SMES
- vii. Enabling Manufacturing sector to be competitive through Quality Management Standards and Quality Technology Tools.
- viii. National campaign for investment in Intellectual Property
- ix. Market Assistance /SMEs and Technology Upgradation Activities - Ministry of SSI in co-operation with TIFAC/CSIR
- x. Marketing support/assistance to SMEs.

3. The NMCP, as conceptualized and formulated by the NMCC is a comprehensive SME revitalization Initiative. It is important to ascertain and assess the progress of the NMCP on a time bound manner to give fillip to its operationalisation. While giving in-principal approval of the NMCP (11th Plan), the Planning Commission has suggested to re-design some of the schemes on the basis of response and demand of the concerned stakeholders, after sensitization and awareness programmes. Therefore it needs to be ensured that the suggested PPP mode (by increasing the beneficiary component) is worked out expeditiously. Renewed efforts need to be made to avoid overlapping of certain schemes viz. IPR awareness programme, Technology Upgradation etc, if being run by other Ministries and Departments.

4. The Ministry of Micro, Small & Medium Enterprises is the nodal agency to implement the NMCP in collaboration with the DC (SSI) and other stakeholders. The NMCC has supported the proposals prepared by Ministry of Micro, Small and Medium Enterprises and DC (SSI) on the components of NMCP with following suggestions on the EFC notes for smooth and early operationalization:

I. National Programme on Application of Lean Manufacturing

- (i) The Strategic Cost Management (SCM) techniques should be adopted for cost reduction by way of improving the bottom line of the organization. For this, the points of profit drain existing in form of wastage and known-value added activities in the business processes should be identified.
- (ii) The hidden potential of cost reduction of a unit should be analyzed. For this all kinds of wastage should be analyzed, measures for their elimination worked out and preventive steps accordingly taken in monitorable time bound fashion linked to verifiable deliverables.
- (iii) The participating units may be provided knowledge and skills on waste diagnoses, capacity building, deployment of cost strategic management, documentary report for dissemination knowledge to other industries and savings through cost reduction.
- (iv) Improvement in productivity and cost reduction of an organization should be gained in the following terms:-
 - Identify the weakest link of value chain reaction.
 - Develop competence to deduct waste and eliminate waste.
 - Impart training on cost reduction methodology.
 - Enhancement of moral of the employees for building their capability to make improvement.
 - Change in the culture of the organization.

Training on problem identification and problem solving.

Consulting support to improve the process should be provided.

Case studies of units which have been benefited by lean manufacturing techniques may be explained to the employee of a firm.

- (v) Profits through Strategic Cost Management (SCM) intervention may be enhanced. For this, comprehensive result oriented consultancy may be applied.
- (vi) Principles of lean consumption and lean management should be properly adopted. This will facilitate in identifying invisible constraints of the processes and facilitates in development of lean solutions.
- (vii) The following lean principles should be adopted:-
 - Specify value from the stand point of customer.
 - Identify value stream for each product and remove wastage activities.
 - Make the value flow towards customer as quickly as possible only at the pull of customer while striving continually for perfection.
- (viii) Lean Counselors should be engaged from reputed management consultancy firms /industry associations for educating the units on lean manufacturing benefits. Technical institutes and industry associations should be actively involved in imparting training in lean manufacturing. The staff should be trained through audio and visual tools.
- (ix) Comprehensive understanding of lean principles to trigger lean thinking among all employees of a company is necessary. Lean implementation begins with lean thinking. This may be done by creating awareness about competitiveness, lean thinking, lean leadership, lean production, lean service, lean principles, reduction of waste, elimination of waste, implementation of lean project management and integration of lean 6-Sigma.
- (x) Thrust should be on more private participation in the implementation so that the units become self-reliant and not dependent on government funding/support to realize the benefits.

II. Design Clinic scheme to bring design expertise to the Manufacturing Sector:

- i) To expedite the overall operationalization of the scheme, it would be necessary to have a technical as well as a financial sub-committee, nominated by the Steering Committee so that the

respective issues can be sorted out amicably and efficiently without delay.

- ii) The criteria for selecting six regional centers and sample clusters should be based on well laid out and transparent parameters so that maximum reach and variety of clusters can be included for incorporating heterogeneity in the design inputs. A select list of designers in the respective sectors to be developed within one to two years can be prepared in advance and their contributions can be used for expediting the value addition and speedy attainment of the objective of the Scheme. Over the period the well trained and capable design entrepreneurs can be awarded Design Orientation Course Certificates as recognition which will help to enlarge the scope of capacity building.
- iii) Delineation of the costs at various heads will be contribution, efficient allocation and assessing extra requirements at specific heads.

III. Promotion of ICT in Indian Manufacturing Sector

Few more sub heads needs to be considered for usage of ICT tools for SMEs, which are:

- (i) Cluster mapping.
- (ii) e - Readiness study and Diagnostic study of each cluster.
- (iii) Skills set requires for implementation and sustainable maintenance of ICT tools required by individual units.
- (iv) Vendor development for developing customized application tools.
- (v) Other activities proposed by the committee.
- (i) Cluster Mapping: Before initiating the ICT intervention at cluster level, it would be necessary to identify the various cluster produce and group them accordingly viz. Textile, Auto component, Pharma, etc. for preparing action plan suitable for that product specific cluster.
- (ii) e - Readiness study and Diagnostic study of each cluster: The objective of e-Readiness is to analysis the business dynamics of the clusters for assessment of a broader ICT penetration into various business line and functions in these clusters to enhance their efficiency, productivity, quality and linkage with the global supply chain.

Similarly diagnostic study should be conducted to identify cluster specific primary sources, which are part of the cluster eco -system, directly or indirectly and are concerned with the sectoral dynamics like ISVs, R&D and training institutes and

associations etc. This will benefit in assessing short-comings in the system and taking remedial action for better productivity.

The NMCC, along with the Microsoft have selected three clusters for ICT intervention at cluster level. The experience of ICT intervention at these three clusters may also be taken into account while formulating strategy for cluster level ICT intervention.

- (iii) Skills set requires for implementation and sustainable maintenance of ICT tools required by individual units: Use and maintenance of ICT tools and hardware requires highly skilled man power. The issues of availability of specialized skill set must be ensured for the optimum utilization of ICT resources.
- (iv) Vendor development for developing customized application tools: Individual cluster and to some extent each individual unit within the cluster are having a definite set of process and hence, application development solution for that cluster /units should be developed accordingly to suit their customized requirements.
- (v) Other activities proposed by the committee.
 - Based on the discussions with the various stake holders in the meeting convened on 15.05.2007, at the NMCC, and as suggested by AS & DC(SSl), it has been decided to constitute a committee for discussing the issues relating to the implementation of the said scheme.
 - The other activities which may be proposed by the committee constituted under the chairmanship of Member Secretary, NMCC as mentioned above to suggest various ways and means to implement usage of ICT tools in SMEs may be addressed.
 - E-Chaupal like platforms should be set up for providing solutions for ICT applications to clusters as per their customize requirements. This may be done at the SIDO level in association with NASSCOM, FASSI, and CII etc.
 - Taking advantage from the national portal on manufacturing under "Vikas" being implemented along with Microsoft, possibilities for utilizing the knowledge and development skills in various industries in SMEs sector should be explored in collaboration with other software companies.
 - Opportunities for software/IT application for domestic industries especially in the manufacturing sector among SMEs may be explored in consultation with DIT which has an ongoing scheme to develop solutions/ICT applications.

Associations like NASCOM, CII etc. could also be associated in the process of identifying clusters/ industries in various sectors for this purpose.

- Knowledge Bank of software applications should be created and linked through out the country so that a unit in any part of the country is aware of the latest developments in ICT applications and utilize the same for enhancing manufacturing competitiveness, quality production and maximization of value addition.
- The benefits of ICT driven business application needs to be elaborated by way of sensitization programme or otherwise as it has been observed from various case studies that substantial savings can be obtained through ICT driven business applications.

The proposed Scheme will help in achieving the main objective and functions of enhancing the competitiveness of Indian Manufacturing sector especially the SME sector by way of:

- i. Benefit through adoption of best business practices built into ICT applications.
- ii. Standardization of business process across organizations.
- iii. Improvement in delivery time.
- iv. Reduction in inventory caring cost such as raw material, engineering spares, finished goods etc.
- v. Improvement in man power productivity.
- vi. Improvement in quality thus avoiding reworks.
- vii. Improved manufacturing, planning and supply chain.
- viii. Controlling time and cost over runs of projects such as expansion project, new product development.
- ix. Reduction in internal lead time of various business processes.
- x. Powerful executive information system to facilitate proactive decision making process.
- xi. Improved customer satisfaction.
- xii. Increase in export.
- xiii. Translation of knowledge into proper application of technology in the manufacturing sector.
- xiv.** Employment generation.

IV. Mini-Tool Rooms proposed to be set up by Ministry of Micro, Small and Medium Enterprises

- There should be a mechanism to monitor the implementation, proper and smooth functioning of the proposed Tool Room to achieve its objective and the below mentioned likely results. For this a committee consists of representatives from various stake holders may be constituted including NMCC.
- The proposed Tool Room will help in achieving the main objective and functions of enhancing the competitiveness of Indian Manufacturing sector especially the SME sector by way of:
 - i). Design and Manufacture of Tools & Dies, Moulds, Jigs & Fixtures, Gauges and ensure their appropriate use and maintenance.
 - ii). Promoting Modern Production Technology
 - iii). Tool-related innovations for improved product design.
 - iv). Training and up gradation in Tool & Die Technology
 - v). Productivity improvement.
 - vi). Training and skill development in Tool and Die making, Machinist inspection, quality control, testing and maintenance, CNC and EDM technology etc.
 - vii). Consultancy like Project Planning, execution of Turnkey Projects, selection of raw materials etc.

V. Technology and Quality Management Support for SMEs.

Few more sub heads needs to be considered for technology and quality upgradation support for SMEs, which are:

- i. Establishment of Testing Laboratories.
- ii. Provision for technology upgradation fund
- iii. Provision for venture capital fund for adopting new and non-proven technology.
- iv. Training of personnel.

The NMCC is of the view that the above proposals on implementation will help in achieving the main objective and functions of enhancing the competitiveness of Indian Manufacturing sector especially the SME sector by way of:

Planned growth of Indian industry.

Preventing obsolescence and Promoting Modern Technology

Promoting innovations for improved quality and product.

Promoting Energy conservation.

Enhancing global competitiveness and exports.

Productivity improvement.

Employment opportunities.

VI. Support for Entrepreneurial and Management Development of SMEs

- It is also important to focus on the impact of the dissemination for rejuvenating entrepreneurial culture and mushrooming of business entities. It is important to have economies of scale while identifying the units in a particular industrial activity. The effect of the dissemination can be multiplied by linking with nearby clusters etc. so that the actual beneficiaries of the scheme can be augmented.
- Identification of the entrepreneurs for participating in the scheme. This can be accomplished with the help of local industry associations and the active support from the respective SISIs in the region.
- The three sunrise activities identified viz. Bio-medical, Pharmaceutical (bulk drug formulation) and Information Technology must be further extended based on the emerging areas according to technology frontiers and international R&D investment trends.

VII. Enabling Manufacturing sector to be competitive through Quality Management Standards and Quality Technology Tools

- i) The following steps should be taken to achieve quality control and manufacture world-class products:-
 - Exposures to chosen market against any competition.
 - Matching or exceeding any competitor on quality, price, delivery, and innovation.
 - Becoming first, focused and fast.
 - Focus on competitive Quality.
 - Implement Lean Manufacturing.
 - Achieve cost efficiency.
 - Reduce time to market.
 - Exceed Customer's Expectation.
 - Outsource Processes and have Global Practices.
 - Apply Six-Sigma tools.

- ii) The professionals in a unit should be trained on the principles of product and service quality evaluation and control. Development and operation of Quality Control Systems, application and analyses of testing and inspection measures, ability to use, metrology and statistical methods to diagnose and correct improper quality control practices, and understanding of human factors and motivation, facility with quality cost concepts and techniques, and the knowledge and ability to develop and administer management information systems and to audit quality systems for deficiency identification and correction should be practiced.
- iii) To impart training in quality control professionals from R&D institutions, consultants and experts on quality control may be engaged.

VIII. National campaign for investment in Intellectual Property

- i. The envisaged assistance for supporting patent realization should be based on a well laid out and scientifically drawn up criterion involving parameters like its future benefit, commercial prospects etc. and the support can be varied with respect to the outcome on a case to case basis based on the recommendation of the expert cell under the proposed Apex level Working Group (AWG).
- ii. The involvement of international agencies in capacity building and disseminating advanced information on regulations etc and conducting foreign visit of selected MSME members is very much essential; however it should be evolved in a structured and transparent manner, so that the highly trained incumbents can be further fruitfully utilized for larger benefit of other larger number of local units.
- iii. The awareness programme should be based on strategy for protecting the ideas of SMEs by involving Patent offices at various places, industry associations like CII etc both at State level and National level. The new components of knowledge should be acquired by consulting Scientists with knowledge about innovative R&D and crucial tacit knowledge particularly in the SMEs sector.
- iv. Exposure visits to developed countries should be made not in routine fashion but only with a specific purpose. Further more emphasis should be given to seminars with greater participation by State Governments and industrial bodies. This will help in greater interaction of knowledge and implementation of IPR related activities.

- v. Emphasis should also be given to the greater participation of State Governments, Patent offices and Industry Associations. This will augment the interaction of ideas and acquiring knowledge and new skills.

IX. Market Assistance /SMEs and Technology Upgradation Activities –Ministry of Micro, Small and Medium Enterprises in co-operation with TIFAC/CSIR

- i) For expediting the tasks and decision making process, the Working Group may be set up which will involve various Sub-groups for select activities viz.
Preparation of detailed cost estimates for select products
Adoption and dissemination of identified technology categories
Technology-mapping surveys
Sensitization campaigns
Facilitating for participation in India/international trade-fair etc.
- ii) However, the overall co-ordination of the Working Group as well as the various Sub-groups should be under the administrative authority of the DC (SSI). The members of the Working Group/Sub-groups can be drawn from various organizations/experts in the concerned area of expertise including SIDO, TIFAC/CSIR, and other Technical/Research Institutes of excellence.
- iii) The Fifty Benchmarking Studies & Technology Mapping exercises envisaged should be approached systematically as far as possible by incorporating findings based on detailed location studies/analysis from reputed technology-research organizations in terms of selection of cluster, technology, products, etc. The active participation of the local industry (of the respective sectors) associations need to be ensured for making the programme more demand driven.
- iv) To have efficiency in technology dissemination, higher investment is an imperative. Hence pooling of resources for higher investments like 'technology bank' like agency can be attempted for ideal technology dissemination to extract the scale effect for larger beneficiary group.

X. Current status of NMCP

- i) The Chairman, NMCC has taken up with the Finance Minister and Deputy Chairman, Planning Commission in May, 2007 conveying his concerns about the manner the delays are being encountered in getting financial approval for the various components of NMCP. This is despite regular pursuit by the officials of the

Ministry of Micro, Small & Medium Enterprises which is responsible for implementing these proposals. The need to ensure speedy approvals and implementations of these proposals of National priorities was emphasized in the letters sent by the Chairman, NMCC where he has requested that constant monitoring mechanism needs to be put in place. Copies of the letters sent to the Dy. Chairman, Planning Commission and FM were also sent to the PMO.

- ii) The Finance Minister has already issued necessary instructions to Expenditure Secretary for periodic of progress of the Programmes to speed up approvals. This was informed by FM in his letter dated 22.5.2007 to the Chairman, NMCC.
- iii) The issue of EFC approvals was also discussed in the 5th meeting of Empowered Committee held on 6.6.2007. The Additional Secretary, Department of Expenditure informed that it was essential for them to know the views of the Planning Commission on a particular scheme before giving approval since the funding of such schemes beyond the period of one year, needed to be assured. She assured that the priority and importance of the NMCP was being fully appreciated and such proposals are reviewed every fortnight by that Ministry. Advisor to FM who supported the view that Finance Ministry considers the proposals on the basis of Annual Plan allocation granted by the Planning Commission. The Joint Secretary, PMO informed that PMO has set up a coordination Committee for better coordination and implementation of various schemes. The Development Commissioner (SSI) was requested by a D.O. letter on 25th June, 2007 the latest status of the implementation of the components of NMCC.

The third agenda item: Manufacturing Competitiveness Studies - Progress: The following are the highlights of the agenda item:

I. Background

1. The National Manufacturing Competitiveness Council (NMCC) functions as an inter-disciplinary and autonomous body to facilitate a continuous forum for policy dialogue to energize and sustain the growth and competitiveness of the manufacturing sector. The National Strategy for Manufacturing (NSM) evolved by the NMCC for enhancing the competitiveness of the manufacturing sector envisions its operationalisation through active participation of various Ministries, industry associations, reputed research institutions, National and International experts, and key decision/policy makers of the manufacturing and its related sectors. The NSM delineates the sector-specific initiatives to be undertaken for enhancing the competitiveness at various levels including National, Sector/Industry as well as at Firm levels. Manufacturing is one of the key drivers of economic growth. A vibrant Manufacturing sector accelerates employment opportunities and augments the spurt of the knowledge and technology base, which in turn stimulates Innovation, R&D, and ICT the ingredients for future growth.

II. Global Manufacturing Competitiveness: New Goal

2. Achieving global Competitiveness has become the new goal for growing firms. Broadly Competitiveness constitutes three aspects in the case of firms, viz. high quality, lower cost, and quick deliverability. Their success ultimately depends on increasing the market share in the global arena, that is, the higher the global market shares, the better the level of competitiveness of the firms. Hence, competitiveness of the firms broadly indicates the overall competitiveness of the country, or the core competence to an extent. For attaining manufacturing competitiveness firms have been striving to adopt Best practices, process techniques and technologies, International quality standards and Global Benchmarks. This has become necessary for firms to attain higher growth and productivity and in turn increased share of global trade.

3. To attain competitiveness, firms must understand and adopt the virtues in the Global Manufacturing networks, challenges and opportunities of global supply chain management, successes of enterprises operating in global environment. The increased global engagement also helps firms to interact with global counterparts, learn, and pursue a renewed strategy based on experience.

4. It is important to understand the prevailing competitiveness scenario in the global market, though dynamic in nature. This demands expertise from diverse fields such as manufacturing operations, management

techniques, innovation and product development, sourcing strategies, supply chain, international trade, logistics and transportation. Indian manufacturing firms have been showing competitive edge due to its strength in technology, skills etc. Further, with reverse flow of knowledge-based investment, Indian firms are developing capabilities like product innovation, manufacturing quality, and process innovation giving them competitive advantages.

III. Research Focus: Manufacturing Competitiveness Studies

5. For India, the Manufacturing sector is crucial for providing jobs for the large work force entering the job market every year, particularly from the rural areas. At the current annual growth rate of 9 per cent, the manufacturing growth must be at least 12 to 14 per cent. Hence, as emphasized in the NSM, NMCC has been stressing on giving priority to labour intensive sectors in policy and action plans, which has potential competitive advantage, such as Textiles & Garments, Leather & Leather Products, and Food Processing, IT and Hardware and SMEs and Cluster. These sectors are prone to various problems and constraints, which needs to be removed to encourage them to perform at potential to attain global competitiveness. The issues are with respect to structure and size (scale), technology gaps, modernization needs etc. These are being addressed with the help of sector specific strategies with cooperation and active involvement of the respective Ministries and the concerned stakeholders in each of the sectors.

6. The thrust areas identified are sectoral and enterprise level initiatives, innovation and technology development (R&D), entrepreneurship promotion, infrastructure enabling facilities, trade and fiscal policies and employment generation. Further, to attain the competitive edge in 'manufacturing', it is vital to mitigate constraints; such as infrastructure, transaction cost, higher interest, power and regulatory issues, technology upgradation, market access, duty structure, managerial practices and competitive scales etc. These need to be taken up by the active involvement and closer interaction amongst stakeholders viz; industry, input providers, financial institutions, education, research, and management institutions, and policy makers. The long-term growth target also envisages innovative programmes and policies which move deeper into the manufacturing system to revitalize the growth process viz the National Manufacturing Competitiveness Programme (NMCP), conceptualized for rejuvenation of the SMEs across the country.

7. The NSM adopts a twin approach of simultaneously intervening with initiatives at Macro-policy/sector level and encouragement at the firm level through advanced technology and management best practices and techniques, which are being implemented through various development institutions/agencies in the respective fields. Maintaining firm level competitiveness is equally essential by building abilities to acquire,

assimilate, develop new technologies; reduce production costs; cut down delivery time; practice Total Quality Management; enhance productivity and customer service. The competitiveness to an extent depends on the effectiveness with which countries promote the development of technological and managerial capabilities. Recognizing this vital link the NMCC has undertaken many measures including undertaking research studies to gather valuable inputs which can be fruitfully disseminated through various stakeholders.

IV. Future Work Programme of the NMCC

8. The NMCC has also been undertaking macro-level, sector-wise and firm-specific studies to assess and understand the ground realities of the competitive scenario and position the competitiveness level of Indian firm's vis-à-vis that of the globally leading counterparts. At one level, the NMCC has been engaging with the decision makers and the stakeholders for formulating long-term action plan for stimulating a growth path for the sub-sector concerned. A Mission mode approach is being followed for implementation of the Action Plans to improve efficiency and productivity in respect of some of the sectors. Further, these sub-sectors will also be studied thoroughly to re-position them in the global competitiveness context. In this, as prioritized by the HLCM of the NMCC, in the first phase, sectors like the Textiles and Garments, Leather and Leather Products, Auto Components, Food Processing and IT Hardware, SMEs would be selected for detailed study.

V. Macro-level Studies

9. The macro-level studies would be undertaken to give an overall competitiveness position of the country in general and also to understand various State's competitiveness status in terms of their inherent advantages etc. To stimulate a competitive urge it is important to provide the necessary climate by removing the roadblocks and impediments at the national level so that an overall competitive environment is created across the country. This involves harmonizing tariffs, duties, local levies, Octroi etc. for providing a conducive atmosphere for investment and growth. In this context, it is important to undertake a detailed assessment of various kinds of impediments, fiscal and administrative, prevailing across the country. This also helps to understand the strengths and advantages existing in certain zones so that specific industries may be streamlined with required support.

10. Another key area of macro-level studies to be carried out is issues involving specific tariffs to be fixed and duties to be bound in various manufactured inputs and finished products, for giving the required level playing field for the domestic industry. In this context, it is necessary to understand the impact of the emerging WTO (NAMA) issues and the issues regarding the existing and the future FTAs and RTAs between various countries on the competitiveness of the domestic manufacturing industry.

VI. Sectoral/Industry level Studies

11. Sector-wise and sub-sector specific studies would be undertaken to delineate the core competence of certain segments of the manufacturing industries situated in various industrial zones. The sector-wise studies help to examine the growth potential, in terms of increasing market (global and domestic) share and the aspects related to employment opportunities. In this direction the NMCC has identified sectors like Textiles & Garments, Leather, and leather products, Food processing the automotive industry as one of the priority areas for focused intervention. The sector has been growing and it has higher potential for growth employment generation. The intrinsic issues need to be examined in detail to assess the growth and competitiveness of the sector. Enhancing sub-sector level competitiveness is the key for achieving growth. Hence it needs to be identified the type of encouragement such sub-sectors are looking for to move forward on the growth path quickly. The sub-sector wise engagements are part of the national strategy for enhancing competitiveness of the manufacturing sector and will feed into the overall manufacturing strategy appropriately.

12. The NMCC's sector-specific studies examines among other aspects, whether India can emerge as a major player in the global market in a specific sector on the basis of its performance in the domestic turf, potential entrepreneurial talents, inherent technological and innovative capacity, and openness to foreign investment. The studies also try to assimilate the factors contributing to the competitiveness viz. cost, productivity, prevailing policy regime. Achieving a significant portion of the global market share is the aim to enhance competitiveness; hence the studies also explore the global best practices and process and technology benchmarks achieved by the globally leading counter parts in the respective areas in the developed countries.

VII. Firm-level Studies

13. To build capabilities and capacities in advanced areas of Global benchmarking and adoption of global best practices in manufacturing is one of the thrust areas of the NSM. This sort of continuous dissemination process is essential for ensuring sustainable competitiveness to the vast majority of the firms, especially small and medium units. In this regard, a Manufacturing Advisory Service has been envisioned and which would be established by jointly working out the modus of operation, content, and delivery etc by the Government and the Industry to disseminate practical solutions on real time to the manufacturing sector.

VIII. Technology-Skill Development Studies

14. Technology and Innovations form the base for building up a competitive manufacturing sector. The NMCC has been pursuing policy level support through various instruments to provide encouragement for R&D in various sectors to boost competitiveness. In order to identify the

technology gaps and appropriate technologies to be adopted at various manufacturing areas, it is necessary to carry out a thorough review of the existing technologies in the manufacturing sector. Keeping this in view, competent organizations will be approached to undertake Technology studies in specific sectors to assess the ground realities, issues and also to benchmark with the technology frontiers in the advanced countries in the respective sectors. Dissemination of advanced technology know-how and knowledge base is critical for continuous improvement of certain manufacturing sectors.

16. Development of talents and skills is crucial for sustaining competitiveness. Most of the manufacturing sectors are reeling under the stress of skill scarcity, especially at the operative level having expertise and experience in advanced tools and techniques in manufacturing. Hence, it is necessary to understand the status of skills- both availability and gaps in various manufacturing sectors. In this context, it would be ideal to undertake a detailed skill gap study with a view to foresee the future demand for various skills, existing and emerging and the required steps to be undertaken for providing the same.

IX. Studies on Manufacturing Competitiveness Index

17. Manufacturing Competitiveness Index studies are being carried out to assess the competitiveness strength of specific industries or regions so that the valuable inputs can be used to formulate policy guidelines. In implementing the NSM the State's role is crucial in creating the necessary conditions for competitiveness, as the various economic activities takes place in the State. The NMCC has been closely working with the States for evolving specific manufacturing strategies for enhancing the competitiveness. As far as the economic status of various industries and states are considered, there exists considerable variation between the competitiveness in different sectors in different States induced by various factors viz. facilitation for investment, progress of the infrastructure, advancement in human resource capabilities, reform initiatives etc.

18. In this context, for augmenting the State level competitiveness, it is important to evolve a manufacturing competitiveness index exploring various aspects to revitalize their industrial sector. The aim is not only provide a clear understanding of the current status of the State's core economic actors, but also give pragmatic directions for streamlining their future policies in a progressive manner with a long term vision.

X. On Going Studies/Surveys:

19. As mentioned in the Agenda Item No.4 of the 8th Meeting of NMCC, the ongoing works are under various levels of completion and are being closely monitored by the NMCC for the required feedback:

- **Third National Manufacturing Competitiveness Survey of Indian Firms undertaken by Indian Institute of Management, Ahmedabad.**

20. The Indian Institute of Management, Ahmedabad which was entrusted with the work of undertaking the third National Manufacturing Survey with emphasis on the “innovation and technology”, to understand the R&D details of the firms in line with the NSM of the NMCC has submitted an Interim Report on the Progress of the Project.

21 The IIM-A in its interim report has stated that the survey is trying to understand how firms were coping with the changing environment and the nature of strategies that they were adopting to compete. The IIM-A has informed that they have organized a meeting of Executives of Manufacturing Programme at IIM-A and presented the draft questionnaire and sought their comments. A data base of 8000 firms across various industrial sectors whose turn-over was above Rs.5.00 crore was created. Against a mandate of collecting data from 400 firms across different sectors and from all regions, data from 660 firms have been received and another 30 questionnaires are expected to be received shortly. The sector represented in the sample and the number of firms responded are as under:

Sectors Represented in the Sample	Number of Firms
Auto	5
Auto-Component	90
Casting, Forging & Ceramics	34
Chemicals	76
Electrical & Electronics	69
Engineering	68
Food & Agro Business	52
Garments	71
Machine Tools	50
Pharmaceuticals	50
Spinning	50
Steel	20
Weaving	55
Total	690

22. The IIM-A in the interim report has stated that the quality of data received is good and it covers a wide range of sectors and issues therein. They have also received qualitative comments on hurdles to innovation and growth and on the Government policies

- **Monitoring of the Indian Manufacturing Sector to be done by Centre for Monitoring Indian Economy (CMIE):**

23. CMIE has been extending online database services to the NMCC under its I-Cube module broadly under three heads of supportive services which include Macro Economic databases, Sectoral databases and Firm-level databases. Apart from this CMIE also provides its Regional Monitoring Service, which presents a monthly review of the recent trends of the major

States of India. Further, CMIE has been requested to provide customized solutions, which are in tune with the needs of the NMCC and also monitoring reports of the following sub-sectors in terms of growth and productivity, innovations, R&D, employment, export, technology, etc. The NMCC has been closely interacting with the CMIE on their progress and these reports are at various stages of preparation.

- **Research Study on “Competitiveness of Indian Automobile Industry” to be conducted by the Indian Council for Research on International Economic Relations (ICRIER).**
- **Labour Intensity and Employment Potential of Indian Manufacturing to be conducted by the Indian Council for Research on International Economic Relations (ICRIER)**

24. The Indian Council for Research in International Economic relations (ICRIER) has been assigned above studies. The preliminary findings of the studies were discussed in the NMCC and certain inputs were given to guide the study with respect to specific requirements and priorities of the NMCC. The draft report on “Competitiveness of Indian Automobile Industry” has been received from the ICRIER and the same is being processed in the NMCC. The draft report on **Labour Intensity and Employment Potential of Indian Manufacturing** is expected shortly.

- **Study on Productivity and Export Competitiveness of Indian Manufacturing Sector by National Productivity Council (NPC).**

25. The National Productivity Council (NPC) has been assigned to carryout this study to identify the factors that boost (or hinder India’s competitiveness in select manufacturing sectors. The selected sectors are: (1) textiles & garments (2) leather & leather products (3) auto-components (4) food processing (5) IT hardware & electronics (6) drugs & pharmaceuticals (7) gems & Jewellery and (8) chemicals & petrochemicals.

26. The NPC has furnished the draft reports on:

- (i) Textiles & garments sectors
- (ii) Food Processing Industry.

These are being processed in the NMCC and some comments have been sent to the NPC for making suitable modifications.

XI. Award of studies /Surveys and availing of Consultancy Services in identified sectors for enhancing manufacturing competitiveness

27. The National Strategy for Manufacturing (NSM) recommendations elaborate the specific initiatives to be undertaken for enhancing the competitiveness of the select sectors, both at the national and sector/industry level. In order to understand and assess the

competitiveness position of different manufacturing sectors on a continuous basis, we need to take up studies/surveys in the areas of importance identified in the NSM. The work programme of the NMCC discussed in the 5th and 7th meetings of the full Council held on 5th April and 18th December, 2006 also included undertaking sectoral studies to identify major bottlenecks impacting industrial competitiveness. Accordingly, several studies have been planned to be commissioned by the NMCC.

28. In line with the requirements of the General Financial Rules, 2005, we had inserted an advertisement in two National dailies - "Times of India" and "Economic Times" dated 27th November, 2006 inviting "Expression of Interest" from reputed consultancy organizations/ research institutions for availing consultancy services/surveys/studies in the identified priorities areas of the NMCC as per details of the subjects/areas identified in the National Strategy for Manufacturing and as available at NMCC's website for enhancing manufacturing competitiveness.

29. In order to identify the right type of consultants, the following details were also called for from the interested parties together with the Expression of Interest in terms of General Financial Rules, 2005:

Full particulars of the Organisation/ Company/ Institution on their financial strength, organizational structure, manpower (skilled and unskilled), infrastructure, offices, registration and main activities of the prospective consultant, including details of full time professionals.

Unabridged annual reports or audited financial accounts for the last Five years along with latest Income Tax Clearance Certificate etc.

Names and short CVs of the full time & part time researchers, including field of specialization of each of the proposed key personal to be deployed on the assignment.

Details of major assignments undertaken of a similar nature, during the last five years.

Methodology - A detailed plan indicating how it proposes to carry out each study in the specific sector/ subject/area including the rationale behind the intended methodology.

30. In response to the above advertisement 23 firms/ Companies had expressed their interest in undertaking above assignments for the NMCC. A Group of Officers was constituted in the NMCC to evaluate them. The firms/ companies were evaluated/ assessed broadly on the following pre-qualification criteria mentioned in the Detailed Expression of Interest:

- (i) General Criteria
- (ii) Organizational structure and constitution
- (iii) Core business and duration of business
- (iv) Technical and managerial capability of the firm

- (v) Performance record of the last five years.
- (vi) Methodology and work programme for the proposed assignments;
- (vii) Experience in the field of assignment and qualification of key team members to be deployed in the work (full time & part time separately);
- (viii) Likely time period indicated to complete and submit the report for each sector/ subject.
- (ix) Annual Turnover of the firm.

31. A list containing some of the illustrative areas identified in the NSM and discussed in the 5th & 7th meetings of the NMCC for taking up specific studies was also sent to the firms/companies (Annexure-I).

33. Eighty two (82) proposals were received from 22 firms (Annexure-II). During primary assessment/evaluation of the offers of Expression of Interest it was noted that majority of the firms have expressed interest in more than one area/sector or sub-sector and more than one firm has expressed interest in a subject/area. It was also found that all the firms fulfill the qualifying criteria fixed by the NMCC. Therefore, all the 23 firms were requested by the NMCC to submit their detailed Technical Proposals in the areas of their core competence for undertaking the consultancy services/ surveys/ studies for enhancing manufacturing competitiveness from amongst the listed areas by the Council. An indicative list of areas of interest to the NMCC was also sent to these firms.

32. While asking for the detailed proposals, these firms were asked to submit the following information also:

- Objective and purpose of the study/survey
- The process/approach & methodology to be adopted for carrying out the assignment.
- Benchmarks & Monitoring framework
- Outcomes/deliverables
- Timeframe (task-wise)
- Action plan
- Budget/fees quoted)
- Past and ongoing projects undertaken by the firm in the last 3 years (studies/surveys/consultancy)
- Relevant Experience in the sectors/ proposals
- Scope and coverage of work
- Implementable recommendations
- Project engagement team and their CVs

33. In order to analyze the documents/proposals received from the consulting firms a team of Officers consisting of the NMCC was constituted. The team felt the proposals received were not complete and more information such as deliverables, outcomes, implementable recommendations, time frame, fee chargeable, estimated cost of the job and other terms & conditions was needed. Accordingly the firms/companies were invited for discussions and to make Power Point Presentations to NMCC on their proposals in order to assess their competence, resources available at their command, methodology to be adopted, CVs of the team proposed for studies/surveys and to make them understand with our requirements/time frame etc.

34. To discuss the proposals with the representative of the 22 companies, a high level team of Officers of NMCC consisting of the **two Joint Secretaries, Two Joint Chiefs and three Deputy Chiefs** was constituted. The objective of discussion was to assess the technical capabilities of the firms i.e. areas of their core-competence, work done in the past, their resources, availability and application of primary/secondary data, CVs of the key personnel proposed to be deployed for the assignment etc. At certain times the **Member Secretary, NMCC also joined in the discussions**. On the basis of the Power Point Presentations made the companies were asked to modify their proposals in line with the requirements of the NMCC and re-submit the same.

35. After completing the task of short listing the proposals by the Group of Officers in NMCC, a presentation was made to the Chairman, NMCC on 9th March, 2007 which was attended by the Member Secretary, NMCC and the two Joint Secretaries wherein details of the companies who expressed interest for conducting studies, proposals received and subsequent PowerPoint presentations made by the representatives of the interested firms and discussions for taking up assignments were explained.

36. The Chairman, NMCC approved the criteria adopted for selection of the firms and the methodology adopted by the NMCC for shortlisting of the proposals and the firms. He also approved the proposals short-listed for assigning studies on priority basis. It was also desired that one more round of discussion could be held with the firms of the above short listed proposals before awarding the assignments and further modifications on proposals in line with the specific requirements of the NMCC. The firms were asked by the NMCC on 16th March, 2007 to submit their financial bids along with the other required details like the task-wise time frame for conducting the studies/ Surveys by 22nd March, 2007. The details asked for have been received and proposals are being processed in the NMCC.

The fourth agenda item of the Council meeting was **Discussion on the Actions required for achieving sustained long-term growth of manufacturing sector**: The members had discussion on various issues for sustaining the growth of the manufacturing sector.

Following Points were made by the Council Members:

On the SME sector

Secretary, MS&ME said that he was grateful to the NMCC for the support they have given to various issues. He pointed out that the SME Sector has been growing at about 15% in recent times. Lack of information on the various SME related Government schemes and programmes at the local levels is a major impediment and efforts are being made by his Ministry now to address these issues. He requested the NMCC's intervention for expediting a major training and entrepreneurship development programme with the help of the Planning Commission so that it can be implemented soon. He highlighted that the net bank credit to the SME sector has been declining over the recent years and suggested for putting in place robust policies to raise the priority sector allocation of Bank Credit to at least 50% and earmarking 10% out of it for the SMEs exclusively. He sought the NMCC's help for taking up the issue at the highest level.

Smt. Uma Reddy referred to the example of China where most of the manufacturing companies are ISO certified. The basic problem facing SMEs in India is that the capacities are very small which makes it difficult for them to compete with the Chinese in terms of prices. She emphasized on the required push for quick technology upgradation and adoption of lean manufacturing and six sigma concept for MSME sector to enhance productivity and match the price offered by the Chinese manufacturers. Most of the technology upgradation programmes run by the Government are not known to MSME. She said that some of the schemes are very rigid and it is difficult to take benefit of them. There needs to be a certain degree of flexibility in the framework of the scheme itself to accommodate legitimate and well meaning deviations.

On Skill Development

Shri Baba N. Kalyani commenting on the problem of skill shortage said that our IT sector is employing people who are more qualified than what is required for the job. Hence it has become a drain for our limited intellectual manpower which could have been used for higher end functions. He stated that the remuneration is an important issue in this mismatch. This has to be addressed appropriately in some manner. He agreed with the Chairman's view that the real challenge for country as a whole is to train the sizable group of school dropouts category through a

large number of specialized programmes by emulating successful models from abroad. By engaging these school dropouts who constitute nearly 60% of our young population in the manufacturing sector we can create a huge impact for the economy. He said that there is a need to take parallel from other developed nations in this regard to understand as to how they were successful in meeting this challenge. He felt that we must create institutions in India which will address this issue and prepare this huge chunk of manpower for the mainstream activity.

Secretary, DIPP commented that there were basically three very important sectors where focus is presently needed by everyone. He said that the first sector is the automobile sector which is doing well. The second is the electronics and hardware manufacturing sector and third is the food processing sector which will turn out to be a real big sector in the backdrop of the retail revolution and opening of foreign direct investment (FDI) in this area. The private sector needs to be given the right support to come in a big way in development of skills. He said that if we have a vision statement and operate our schemes and programmes consistent with the goals of vision statement we will be able to address most of the issues facing us today.

Secretary, MS&ME said that Skill development is a very important issue for the MSME sector. He informed that his Ministry is engaged in the skill development training programme of nearly 1.20 lakh youth per year which is likely to go up to 10 lakh per year in the coming years after the establishment of more MSME Development Centres.

Secretary Department of S&T said that the Department of Science & Technology has been actively involved in identifying and encouraging thought leaders through its various R&D based programmes. He said that in India there exists a problem of skill mismatch in many sectors including IT though the sector is trailblazer of Indian Economy. He explained that a successful 'Innovation Cluster' model has been evolved for the pharmaceutical sector. He suggested that making use of the readily available ICT Tools for fast and accelerated education, training and skill development capacity building can be planned. He said the DST is closely working with NASSCOM and the IGNOU for developing about 5 lakh skilled people for the IT sector. He explained that the INSPIRE initiative of the S&T Department envisions creating 10,000 young Thought Leaders with Rs.1 lakh of scholarship support. He said that though a large group of young people are available large numbers of them are unable to participate in the growth process of the economy. 35% of the age group of 10 to 35 of the whole world is in India. If we don't have a vision in the limited time frame

for this vast but critical mass of our young population we shall be jeopardizing the opportunities of potential growth for all time to come.

Smt. Uma Reddy highlighting skill shortage issue said that more and more skilled work force at higher level (Diploma and degree level) are moving towards greener pastures and joining multinational companies for higher pay packets which MSME sector cannot afford. Hence the MSME Sector has to rely upon the skill set at lower level mostly on school drop outs for which a good skill specific short duration training programme is required in the form of vocational training. She said that at their own level in the factory they have started certain programmes where school dropouts are being provided with skills through vocational training and that is partly serving as a solution to the problem of skill shortage. Pointing out the example of Germany where people are trained in collaboration with Industry, and asked the Ministry of MSME takes initiative for collaboration with the SMEs. She suggested that if e-modules could be prepared in different areas a person can quickly learn the desired skills without even the assistance of very competent trainer or any long duration training with the help of IITs, and other technical institutions to develop such e-modules.

Shri Suresh Neotia, highlighted the need for entrepreneurship development and mentioned that his organization, which conducted EDP Programme in collaboration with financial institutions and made it a success. He said that other industries can try out this model. He raised the problem of finance by banks and financial institutions, who are insisting for collateral/security for financing SME Sector projects contrary to the guidelines of RBI. He stressed that a mechanism needs to be evolved to make available adequate finance, without asking any personal collateral for mainstreaming the growth potential of the SME sector. He also referred to the problems in the scheme of adoption of ITIs by the Private Sector in which Ministry of Finance through DGET, offers financial incentives up to Rs.2.5 crore. He informed that there is lot of bottlenecks at the implementation level of this scheme.

Dr. M.S. Ananth, expressed the need of harnessing ICT for distant education as well as virtual classroom education after which a degree can be awarded making it equivalent to normal classroom teaching, which could need a new law to accommodate such a regime. He said the shortage of quality faculty especially in higher education sector due to various constraints, need to be addressed on priority basis. The IITs need to have international stature. Though this issue has been taken up with the Ministry of HRD it has not seen the light of the day as there are still certain clearances and approvals required from the Ministry of External Affairs. He

said that as our faculty is comparable with any in the world, internationalizing of IITs will make our students also comparable to the best in the world. Dr. Ananth said that internationalizing the IITs and IIMs can reverse the flow of students and strengthen the mix of academic staff and students from other foreign countries and institutions.

Prof. Shekhar Chaudhury, while agreeing with the various points made said that the situation is really bad at the bottom end of the labour market constituting mostly the school dropouts. Their employment in SME Sector with appropriate skill development is the real challenge. This important area needs concerted efforts by every one. On higher end of Research, Prof. Chaudhury commented that in the US though there is lot of research work going on, these are being done mostly by the Chinese, Japanese and the Indians. He said that in Singapore also a very attractive scheme for scholarship in research studies is being given to promote research. In India however, the students on completion of research are either going to industry or going abroad. Something needs to be done to utilize their potential within India to retain the talent which will help in building up the faculty in our premier training institutes.

On FTA and Technology Transfer

Secretary Heavy Industry, & Public Enterprises complemented the NMCC's intervention and guidance in resolving the technology absorption issues of the power equipment manufacturing industry. He suggested undertaking a comprehensive study for identifying the issues confronting the competitiveness of the capital goods industry particularly in public sector. He also highlighted the criticality of many FTA's and RTA's for the automobile sector. He observed that in the automobile sector as well as in the capital goods sector certain fiscal issues needed to be addressed which have been taken up with Ministry of Finance and Commerce Ministry. He wanted the support from the NMCC in this regard to help quickening the required decision. He said that a study is required to assess the comparative advantage of various consumer goods produced in the country vis-à-vis the Chinese counterparts as this is affecting the market access of domestically manufactured items. He said that some of the goods are coming now through abnormal trade routes and the Customs Department have to be sensitized to look into this matter.

Shri Venu Srinivasan, commented on the need for a level playing field for the automobile sector in the context of the various FTAs. He suggested that in the wake of the various FTAs, it is important to ask for reciprocity in market access on both sides so that when we lose in some

segments, we can gain in some segments of the automobile sector. Giving an example, he pointed out that all the auto parts now come to the country from Thailand at zero duty. Whereas Indian automobiles do not get same kind of access in small car segment to Thailand which is an area of strength for us. Hence a quid pro quo policy is necessary rather than an one sided one.

Shri Baba N. Kalyani said that the FTAs being finalized now are being perused with haste. Particularly when the FTA with Thailand is already giving us problems. Follow-up agreements with the entire ASEAN region on the same line will be highly negative for Indian manufacturing sector. Therefore this process has to be properly monitored and all stake holders have to be involved for arranging a consensus before any new FTA is signed.

On R&D Issues

Secretary, S&T said that the investment in R&D activities in India is miniscule compared to many developed countries. He said that the fundamental problem in this regard is low participation of industry in the R&D effort. He informed that at present about 35000 research level persons are employed by industries whereas Government sector employed about 1.25 lacs research professionals. He pointed out that a 12 fold increase in R&D expenditure is the need of the hour with the necessary freedom and liberty for undertaking the R&D activities in a 'Guru kul' orientation with active participation of private sector and the industry. He called for augmenting social capital for comprehensive R&D effort with utmost thrust in various sectors.

Secretary, S&T said that the research capacity is also required to be re-assed in each sector. In this regard he said that the leather sector is a good example where there is good technological capacity. But this is not fully harnessed. He said that it is difficult to have collaborative tie-ups with entire SME. In the case of SMEs, the risk bearing initiative needs to be shared through synergy with the industry and R&D institutions. The issue can be addressed by Consortia Approach by adopting an appropriate method of cost sharing. He said that the industry should come forward for the same.

Smt. Uma Reddy highlighted that there is hardly any R&D in the SME segment. Though there are many projects being taken up by the premier institutes and industry, SME sector units have no access to these R&D

projects. In the interest of everyone, the premier institutes must share such projects with the SMEs.

On Mining & Infrastructure

Shri Suresh Neotia brought the attention of the Council Members to the issue of mining policies for exploitation of natural resources. He specifically referred to the example of coal sector where Coal India has been retaining large number of good coal blocks. This is preventing opening of these coal blocks to the private industry without any immediate plan for development. He informed that not even a single coal block has been allotted as yet to any private players, in cement or steel industry in the last more than 9-10 years. He further suggested to the Chairman, NMCC to do something for the infrastructure sector as a whole which is pulling back the growth momentum of the manufacturing sector. He finally said that in the food processing sector, there is a proposal to setup a regulatory body. This has to quickly happen as it would bring credibility to the products of the food processing industry of the country as a whole. The bill is mired in discussions for more than 9 months. He requested the Chairman, NMCC to use his good office in this regard.

Member Secretary summed up the discussions by highlighting the following points which have come up during discussion.

Issues of skill development in its whole gamut & range.

Methods to address them by operationalising the suggestions of members in this regard.

Leveraging the strength of Department Science & Technology for augmenting training at higher level.

Engaging Ministry of Labour in the large scale training programme at the vocational level.

On the point of competitiveness he said that several good suggestions have come particularly in the automobile sector. He informed that NMCC study made by ICRIER is going to be discussed in the next meeting. In conclusion he stated that the main points that have emerged in the Council meeting are as follows:

- The intervention regarding skill development has to be multi-pronged encompassing various levels from lower end of skills with short duration training programs to higher end involving Ph.D, R&D, Technology development programmes of much longer duration. Hence concerted efforts are needed from all the stakeholders to meet the required demand. The recently approved skill development

programmes involving an outlay of Rs.550 crore of the Department of Labour and the innovative schemes of the S&T for improving scientific talent and generating thought leaders need to be fully made use of by the industry for optimum result.

- The NSM has elaborated on the comprehensive development of the SMEs. Through the operationalisation of all the components of the NMCP, most of the problems of SMEs can be addressed. The Ministry of MSME may follow up with the concerned Ministry and expedite the implementation of all the components of the schemes at the earliest.
- The issues regarding FTAs with respect to certain sectors like automobile, engineering etc. need to be understood at all levels and our approach must be based on backup studies and robust information set in this regard. The NMCC is pursuing in all these areas.

Chairman, NMCC thanked all the members and also conveyed to the members that in the last HLCM meeting the PM was appreciative of the work done by the NMCC. It is a privilege for him to convey the feelings of the PM to all members of NMCC

List of Illustrative Areas for conducting Studies/Surveys

1. Survey of Indian Business Climate to understand the economic and business fluctuations at the macro level.
2. Lowering Cost of Manufacturing.
3. National Vocational Educational Qualification System
4. Re-engineering Procedures (Minimizing Transaction Costs)
5. Enhancing Competitiveness of Un-registered Firms (Global Best Practices)
6. Low Productivity of Labor (PSUs)
7. Firm level Competitiveness (Strategies & Road Map Development)
8. Lean Manufacturing Advisory Center
9. Development of MIS for the NMCC
10. Derive the Manufacturing Competitiveness Index (Sectors/States).
11. Monitor trends in total factor productivity of the manufacturing sector in India - based on work earlier done by National Productivity Council (NPC)
12. Identify the relationship between Export performance vis-à-vis Growth and Productivity in the Indian manufacturing sector
13. Survey of literature on innovation and technology transfer issues relevant to Indian context.
14. Implications of FTAs on the competitiveness of Indian manufacturing industry.
15. Analyzing and working at a Composite competitiveness Index based on various Competitiveness Indices like Global Competitiveness Report, IMD's World Competitiveness Year Book/World Investment Report etc.
16. Identification of Labour intensity of various manufacturing sectors of the Indian economy.
17. Employment potential of manufacturing sub-sectors

18. Statistical base/ validity/ relevance of Index of Industrial Production (IIP)
19. Indigenous manufacturing in the Defence sector.
20. Offset principle to be explored in the Defence and other high value procurements.
21. Cluster development studies and implementation issues in consultation with all stakeholders.
22. Prioritization and matrices of manufacturing sub-sectors for medium to long term growth potential to be created.
23. **Comprehensive Skill-Gap Survey** with the following objectives:
 - ✓ To assess the structure and status of manpower situation in various sectors.
 - ✓ To study the institutional requirements for restructuring the manpower training needs
 - ✓ To form a continuous mechanism to monitor and reorient the manpower and skill requirements in the manufacturing segments.
24. **Work on Advanced Technology Products (ATP)** for detailed identification of leading edge products from an acknowledged high-technology industry to be classified under ATP and harmonize them with the codes of the Indian Trade Classification (ITC) and national Industrial Classification (NIC)-2004 so as to build a regular data base on the manufacture and trade of ATPS in all the ten field

List of the Companies submitted proposals for conducting studies

1. Deloitte Touche Tohmatsu, Chennai
2. TATA Strategic Management Group, Mumbai
3. M/S CRISIL Infrastructure Advisory, Mumbai
4. ICRA Management Consulting Services Limited, New Delhi
5. Federation of Indian Chamber of Commerce and Industry (FICCI),
New Delhi
6. Rajiv Gandhi Foundation (Rajiv Gandhi Institute for Contemporary
Studies), New Delhi
7. Indian Institute of Foreign Trade (IIFT), New Delhi
8. National Productivity Council, New Delhi
9. Cluster Pulse, Ahmedabad
10. National Council of Applied Economic Research (NCAER), New
Delhi
11. Centre for Research, Planning & Action, New Delhi
12. Cygnus Business Consulting & Research, Hyderabad
13. SEE-Tech Solutions Pvt. Ltd, Nagpur
14. Santek Consultants Pvt. Ltd., New Delhi
15. March Marketing Consultancy Research, Hyderabad
16. Development & Research Services Pvt. Ltd., New Delhi
17. Spectrum Planning (India) Ltd., New Delhi
18. Market Pulse, New Delhi
19. INDICUS Analytics Pvt. Ltd., New Delhi
20. Scientific Applications for Advancement of Industries (SAAI)
Consultants, New Delhi
21. JPS Associates, New Delhi
22. DKTE Society's Textile and Engineering Institute, Rajwada,
Ichalkaranji, Distt. Kolhapur (Maharashtra)