

Department of Heavy Industry  
(HE&MT Section)

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Sub.: Minutes of meeting of the Screening Committee for implementation of the Scheme for enhancement of competitiveness in the Indian Capital Goods Sector.

The second meeting of the Screening Committee for implementation of the Scheme for enhancement of competitiveness in the Indian Capital Goods Sector was held on 21.8.2015 under the chairmanship of JS(HE&MT). List of participants is enclosed. (Anexure)

2. Two proposals one from IIT-M with respect to Center of Excellence Component of the scheme and one from HMT for Common Infrastructure Services Facilities were presented before the Screening Committee.

A: Proposal No. 1: Development of 11 machines tools technologies by IIT-Madras for 6 machine tools companies (industry partners) under the Center of Excellence Component of the Scheme.

3. Prof. (Dr.) N. Ramesh Babu of IIT-Madras, along with the industry partners, made an overarching presentation on the various aspects of each of the following mentioned 11 proposals. Total cost for development of these 11 projects is Rs.67.52 crore with DHI Contribution Rs.54.01 crore and industry contribution Rs.13.51 crore (20%).

(Rs. in crore)

Sl. No.	Title of Project	Industry Partner	Project Cost	Industry Contribution	Proposed DHI Contribution
				(as % age of the project cost)	
1.	Development of 5 axis CNC Multi-tasking machine	Jyoti CNC Automation Ltd.	13.55	2.71 (20%)	10.84 (80%)
2.	Development of 5 axis CNC Universal machining Centre	Jyoti CNC Automation Ltd.	21.89	4.38 (20%)	17.51 (80%)
3.	Development of Hydrostatic Systems for machine tools	Micromatic Grinding Technologies	3.83	0.77 (20%)	3.06 (80%)
4.	Automation of Grinding Process Intelligence	Micromatic Grinding Technologies	2.81	0.56 (20%)	2.25 (80%)
5.	Thermal Compensation Strategy for CNC lathes	Ace Designers Ltd.	1.77	0.35 (20%)	1.42 (80%)
6.	Ultra Precision Micro Machining Centre	MTAB Engineers (P) Ltd.	7.44	1.49 (20%)	5.95 (80%)

7.	Low Cost Machine Tending Robot	MTAB Engineers (P) Ltd.	4.78	0.96 (20%)	3.82 (80%)
8.	Multi Station Robotic Grinder and Polisher	Chennai Metco Pvt. Ltd.	2.33	0.47 (20%)	1.86 (80%)
9.	Orbital Motion Abrasive Cutting of Metals	Chennai Metco Pvt. Ltd.	0.85	0.17 (20%)	0.68 (80%)
10.	Direct Drive Abrasive Cut off Machine	Chennai Metco Pvt. Ltd.	1.80	0.36 (20%)	1.44 (80%)
11.	Development of 5kW drives and 25kW spindle drives for machine tool applications	Interface Design Associate P Ltd.	6.47	1.29 (20%)	5.18 (80%)
		Total project cost	67.52	13.51	54.01

4. Various discussions/observations of the Screening Committee are as follows:-

4.1 It was highlighted that all the technologies listed above are import substitutes and are of strategic nature. The products based on these technologies are not made in India and the development of these technologies and products thereof would open new avenues in high tech areas, energy efficiency, enhanced productivity and accuracy as required in defence, aerospace, nuclear, automotive, power equipment and other industrial machinery sector. Developed machines will enhance the competitiveness in their respective category of machineries and have good export potential. Details regarding export opportunities and import substitution with forex savings were highlighted.

4.2 Screening Committee members from user ministries and technical experts present in the meeting agreed that indigenous development of these technologies is required.

4.3 Apex Committee in its meeting dated 11.12.2014, on consideration of the proposal by IIT-Madras, IMTMA and others for 15 specified technologies for Machine tools sector, advised IIT-Madras to approach the screening committee with larger user base in consultation with IMTMA. They are also advised to reduce DHI component of grant to the extent available by increasing larger user base and by increasing contributions from proposed users, so that more proposals could be supported under the CG Scheme. Various observations were made by the Screening Committee members regarding the desirability of having more than one Industry Partner for each project instead of the proposed one to one arrangement at present. In this regard Prof. Ramesh Babu and Industry partners informed that these technologies have been proposed to IIT-Madras by the Industry. IMTMA have made every effort to get as many industry partners; however in view of the high-tech, high investment nature of the technologies and their commercialization, more machine tool manufacturers have not come forward so far.

4.4 Considering the public funding up to 80% desirability of an IPR regime was felt so as to ensure that technologies are spread far and wide for the maximum benefit of the economy with the

ultimate objective of making Indian machine tool industry modern and cost competitive. Lock-in period for commercialisation should be minimum for the benefit of entire machine tool ecosystem. It was decided to constitute a committee consisting of Industrial Adviser, DHI, NRDC/DST, IMTMA, CMTI, DIPP and IIT-Madras/industry members to decide on the IPR issue. The committee shall give its report before the next apex committee meeting. Pending that, it was agreed that in the projects under consideration, a two year lock in period in favour of the industry partners may be considered after which the technology could be made available to the domestic industry at a nominal fee.

4.5 Screening Committee observed that the manpower cost is too high in the project. Industry partners observed that highly skilled manpower, which is not readily available, is required to implement the project within the time frame and suitable compensation is necessary for engagement as well as to prevent attrition of such manpower. Further, to ensure time bound delivery, better focus and accountability key project executioners may not be burdened with more than one project. CMTI, MSME and few more members joined the industries in saying that the skill sets needed are much in demand and are in short supply in the country. Industry was of the view that in order to ensure availability of high quality manpower over the project duration, it is necessary to have a suitable remuneration model. Screening Committee asked the industry/ IIT- Madras to revisit the manpower cost structure.

4.6 Screening Committee asked IIT-M/Industry to explore the option of retrofitability of these technologies, so that the entire manufacturing industries could be benefited.

4.7 Screening Committee asked the industry/IIT-M to define the quantifiable deliverables/achievements in terms of improvement parameters and link the same with project milestones for each of the technology/project so that progress/ output of the project can be monitored/ measured objectively.

5. IIT-Madras informed that they are preparing a Center of Excellence for machine tools specifically for industrial research purposes with the ultimate objective of creating a Franhoufer like institution. They are in the process of forming a society and will also have a project monitoring team with representation from different stakeholders, IMTMA and government. The prototypes developed, in association with industry, would remain in the center and shall be made use of for academic, R&D and training. The cost of common infrastructure for the Center amounting to Rs 35 Crores was projected, which is not being considered at this stage, in the present proposal which is for Common Engineering Facility Component of the scheme. As regards to the requirement of budget of CoE, it was advised that IITM may rationalize the requirements of facilities and services in respect of 11 technology projects for possible cost reduction of CoE due to duplicity, if any. IIT Madras was advised to proceed on the assumption that all the eleven projects would meet with approval and rationalize the overall costing accordingly.

6. The Screening Committee decided to recommend the proposal to the Apex Committee for its consideration subject to the following:-

- (i) Revisiting of Manpower cost by Industry/IIT-M.
- (ii) Defining the quantifiable deliverables/achievements such as accuracy level, energy efficiency for each of the technology/project so that output of the project can be measured objectively. These specifications may be given for the process as well as the user.
- (iii) Retrofit option wherever possible may be explored.
- (iv) A signed copy of the revised proposal in specified format along with appropriate presentation may be made available to the Secretariat for placing before the Apex Committee.

Proposal No. 2: HMT Training Centre under the Common Infrastructure Facility Center

7. Shri B.M. Shivshankar, Managing Director, HMT Machine Tools presented the proposal for training the ITI passed and diploma passed students in the proposed center. The project entails a cost of 97 lakhs, out of which HMT would contribute 20% (Rs.19.40 lakhs). 120 students from rural areas to be trained in a tri-semester, with Capacity of training centre as 480 students. The students will be trained in four job roles namely, CNC Operator, Fitter-Mechanic, Quality Inspector and Fitter-Electrical for a batch of 30 students per quarter in each job role. Skills sets to be imparted include machine operations, calibrations, quality control and system integration. It was informed that HMT possess various machine tools in their existing training centre which will be used to impart skill training under this proposal.

8. Screening Committee suggested that HMT may conduct internship programmes as well as setting up finishing schools to enhance the capacity building of the students of ITI and diploma holders such others skill initiatives which are also essential to to enhance the competitiveness in the capital goods manufacturing. HMT was asked to form a separate SPV with representation from stakeholders, as per the scheme. HMT agreed to form a SPV with representation from all stakeholders, as per requirements of the scheme notification

9. The Screening Committee decided to recommend to Apex Committee a grant of 80% in the project cost of Rs.97 lakhs to HMT for undertaking the project as applied for with 20% of the project cost (Rs. 19.40 lakh) contribution by HMT.

F.12/21/2015-HE&MT  
ANNEXURE

**Sub:** - Meeting dated 21.08.2015 of the Screening Committee for implementation of the Scheme for enhancement of Competiveness in the Indian Capital Goods Sector List of Participants.

S.No.	Name	Designation	Organisation
1.	Sh. Vishvajit Sahay,	Joint Secretary	DHI
2.	Sh. Rohit Parmar	Economic Adviser	DHI
3.	Sh. Sushil Lakra	Industrial Adviser	DHI
4.	Ms. Ritu Pande	Director	DHI
5.	Sh. Sanjay Chavrey	Senior Development Officer	DHI
6.	Sh. N.L. Goswami	Senior Development Officer	DHI
7.	Pradeep Kumar	COS/COFMOW	Ministry of Railway
8.	R. P. Singh	CME/COFMOW	Ministry of Railway
9.	S. Sivagnanam	Addl. Industrial Advisor	MSME d/o. DC(MSME)
10.	R. D. Diwakar	Under Secretary	D/O IPP
11.	Dr. Preeti Sahai	Sc. D.	Technology Development Board
12.	Aditya Mishra	Member	Ordnance Factory Board
13.	K. Acharya		BHEL
14.	N.K. Bhandari	Sr. Manager	NRBC New Delhi
15.	Rahul Bali	Director Technical	Scooter India Ltd.
16.	Dr. Rajeev Sharma	Scientist	DST, Delhi
17.	S. Satish KUMar	Director Incharge	DIPP, MOCI, CMTI, Bangalore
18.	B.M. Shivashankar	MD	HMT MTL
19.	N. Ramesh Babu	Professor	I.I.T. Madras
20.	Srinjoy Das	Director & Head- Nr.	IMTMA
21.	M.K. Dhand		MGT
22.	Sashi Sairaman	Director	MTAB
23.	C. Renganathan		Chennai Metco
24.	T.P. Sridhar		Ace Designers Ltd. Bangalore
25.	K. Srinivasan Nair		Interface Design Associate Pvt.Lmt.
26.	Prakaram Singh G. Jadeja		Jyoti CNC