

- **R&D project for Development of Advanced Ultra Super-Critical (AUSC) Technology for Thermal Power Plants:** This project is of national importance and the R&D project phase has been formulated with an estimated expenditure of Rs. 1554 Crore. Apart from contribution from Government as grant, there will be contribution of Rs. 270 Crore from Bharat Heavy Electricals Limited (BHEL), Rs. 50 Crore from NTPC Ltd., Rs. 234 Crore from Indira Gandhi Centre of Atomic Research (IGCAR) and Rs. 100 Crore from Department of Science and Technology (DST) for R&D phase of the project. The AUSC technology aims at raising the efficiency of coal-based thermal power plants to a level of 45 – 46% besides reducing coal consumption as well as 20% reduction in carbon dioxide emission as compared to coal-based sub-critical power plant. The AUSC technology is still under development in a few other countries. Such technology developed indigenously would enable India to be among the first few countries in the world to demonstrate the technology. It will facilitate manufacture of large power plant equipment with advanced technologies and without Technological Collaboration/ Licensing Agreement from foreign companies. Further, the spin-off from this project will include benefits to other industries dealing with high temperature, high pressure exposure of metal objects. Once developed, use of these technology in future large thermal power plants will ensure energy security for our Country for a longer period, along with reduction in impact on the environment.
- **NATIONAL POLICY ON CAPITAL GOODS:** This is a first time ever policy for this Sector which has been approved by the Cabinet in May, 2016, with the vision to increase the share of capital goods contribution from present 12 % to 20% of total manufacturing activity by 2025. Some of the important recommendations made in the policy are as below:
 - (i) To integrate major capital goods sub-sectors to be envisaged under 'Make in India' initiative.
 - (ii) To create an enabling scheme as a pilot for 'Heavy Industry Export & Market Development Assistance Scheme (HIEDMA)' with a view to enhance the export of India made capital goods.
 - (iii) To increase the budgetary allocation & scope of the present 'Scheme on Enhancement of Competitiveness of Capital Goods'.

- (iv) To launch a Technology Development Fund under PPP model to fund technology acquisition, transfer of technology, purchase of IPRs, designs & drawings as well as for commercialization of such technologies of Capital Goods.
- (v) To create a 'Start-up Centre for Capital Goods Sector' by DHI and CG Industry/Industry Association in 80:20 ratio.
- (vi) Mandatory Standardization of capital goods manufactured in India.
- (vii) To upgrade development, testing and certification infrastructure such as Central Power Research Institute, and set up 10 more CMTI like institutes to meet the requirement of all sub-sectors of Capital Goods.
- (viii) To develop a comprehensive skill development plan/scheme with Capital Goods Skill Council and to upgrade existing training centers and set up 5 regional State-of-the-Art Greenfield Centers of Excellence for skill development of CG Sector.
- (ix) To provide schemes for enhancing competitiveness through a cluster approach, especially for CG manufacturing SMEs.
- (x) To modernize the existing CG manufacturing units, especially SMEs.
- (xi) Setting up a monitoring and evaluation mechanism for governing and ensuring implementation of policy recommendations.

• **Scheme for Enhancement of Competitiveness of the Capital Goods Sector:**

Name of the Key initiative/ Flagship Scheme	Scheme for Enhancement of Competitiveness of the Capital Goods Sector
Launch Date	5 th November 2014
Objective	The objective of the "Scheme for Enhancement of Competitiveness of the Capital Goods Sector" is to make the Indian Capital Goods Sector globally competitive by addressing the issues of technological depth creation in the capital goods sector besides creating common industrial facility centres.
Target Beneficiary	Indian Capital Goods Industry
Physical Targets	To set up Centres of Excellence (CoE) for Technology Development, Integrated Industrial Infrastructural Facility (IIIF), Common Engineering Facility Centre (CEFC) and Test & Certification Centre (T&CC). The Scheme also has a financial component namely Technology Acquisition Fund Programme (TAFP) for Technology acquisition/ transfer in Capital Goods Sector

No. of Beneficiaries	Indian Capital Goods Industry as a whole is the intended beneficiary particularly major capital goods sub-sectors such a machine tools industry, textile machinery industry, moulds & dies industry and power equipment.
Achievements (Year wise) (by way of Project approval)	

2014-15

- CoE at CMTI, Bangalore by TMMA for development of shuttle less rapiers looms of 450 RPM.
- CEFC at Chakan near Pune for Tools, Moulds & Dies industry by TAGMA Centre of Excellence & Training.

2015-16

- CoE at IIT, Madras for development of 11 advanced technologies for Machine Tools & Production Technology
- CEFC at HMT MTL, Bangalore for Skill Development.
- CoE at PSG College of Technology for development of three Welding Technologies.
- Technology acquisition for Development of Four Guideway CNC Lathe by HMT MTL under TAFP.
- Technology acquisition for Develop Turn Mill Centre with Y axis SB CNC 30TMY and integrate high precision C axis on the Main Spindle by HMT MTL under TAFP.

2016-17

- CEFC at Bardoli, Surat by Science Engineering & Technological Upliftment (SETU) Foundation.
- COE at Coimbatore by Scientific and Industrial Testing and Research Centre (Sitarc) on Smart Submersible (6 inch) Pumping Solutions for Industrial and Water Supply Applications.
- Technology acquisition for manufacturing of Heavy Duty High Reliability Electrical Specialised Power Cables by Allied Engineering Pvt. Ltd. under TAFP.
- Technology acquisition for Cutting Edge Robotic Laser Cladding Technology for Hydro Turbines indigenously using Tungsten Carbide Powder by Industrial Processors & Metallizers Pvt. Ltd under TAFP.
- Technology acquisition for Development & Commercialization of Titanium Casting with Ceramic Shelling Technology by PTC Industries Ltd under TAFP.
- IIIF at Integrated Machine Tools Park near Tumkur, Karnataka by Government of Karnataka.
- CEFC at HEC, Ranchi by CEFC Pratham Foundation.

Faster Adoption & Manufacturing of (Hybrid &) Electric Vehicles in India (FAME – INDIA):

Name of the Scheme	Faster Adoption & Manufacturing of (Hybrid &) Electric Vehicles in India (FAME – INDIA)																		
Launch Date	1 st April, 2015.																		
Objective	Intended to support the /electric vehicle market Development and its manufacturing eco-system to achieve self-sustenance and faster adoption.																		
Target Beneficiary, Physical Targets, No. of Beneficiaries	<p>This scheme has 4 focus areas i.e.</p> <ul style="list-style-type: none"> • Technology Development. • Pilot Project. • Charging Infrastructure; and • Demand Creation <p>The Pilot Projects/proposals received from various organisations / institutions under Technology Development, Pilot Project and charging infrastructure are considered / approved by the Project Implementation and Sanctioning Committee (PISC) headed by Secretary, DHI. As regards Demand Creation, Scheme focuses on market creation through demand incentive to buyers (end users/consumers) in the form of an upfront-reduced purchase price for all eligible vehicle segments.</p> <p>The Scheme document specifically mentions that greater emphasis shall be on providing affordable and environmentally friendly public and private transportation/vehicular mobility options for the masses.</p>																		
Achievements, year wise	<p>During 2015-16, there was budget allocation of Rs.75 cr. for the FAME-India Scheme. The allocated funds were fully utilized. The details of expenditure under different components are as under:</p> <table style="margin-left: 40px;"> <tr> <td>Technology Platform</td> <td>: Rs.33.59cr.</td> </tr> <tr> <td>Pilot Projects</td> <td>: Rs.0.69cr.</td> </tr> <tr> <td>Charging Infrastructure</td> <td>: Rs.1.00 cr.</td> </tr> <tr> <td>Demand incentive</td> <td>: Rs.38.92 cr.</td> </tr> <tr> <td>IEC/Operations</td> <td>: Rs.0.80 cr.</td> </tr> </table> <p>During 2016-17, there is a budget allocation of Rs. 122.90 cr. For this scheme. The details of expenditure under different components are as under:</p> <table style="margin-left: 40px;"> <tr> <td>Technology Platform</td> <td>: Rs.4.49cr.</td> </tr> <tr> <td>Pilot Projects</td> <td>: Rs.0.18cr.</td> </tr> <tr> <td>Charging Infrastructure</td> <td>: Rs.115.48 cr.</td> </tr> <tr> <td>IEC/Operations</td> <td>: Rs.0.04 cr. (Total-Rs.120.19 cr. till date)</td> </tr> </table> <p>During 2015-16 and 2016-17 (till Feb, 2017) there was total sale of 111897 vehicles (vehicles supported) and total incentive amount of Rs.127.77 cr. was released till February, 2017.</p>	Technology Platform	: Rs.33.59cr.	Pilot Projects	: Rs.0.69cr.	Charging Infrastructure	: Rs.1.00 cr.	Demand incentive	: Rs.38.92 cr.	IEC/Operations	: Rs.0.80 cr.	Technology Platform	: Rs.4.49cr.	Pilot Projects	: Rs.0.18cr.	Charging Infrastructure	: Rs.115.48 cr.	IEC/Operations	: Rs.0.04 cr. (Total-Rs.120.19 cr. till date)
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- **NATIONAL AUTOMOTIVE TESTING AND R&D INFRASTRUCTURE PROJECT (NATRIP):** The National Automotive Testing R&D Infrastructure Project (NATRiP) envisages setting up of world class automotive testing and homologation facilities in India with a total investment of Rs.2288.06 crore by 31st Dec. 2014. However due to various reasons project came to a standstill resulting time and cost overruns, court cases on contractual issues and other critical issues. With efforts of the Department and NATRIP, during the last 2 years, most of the critical issues have been resolved. The NATRIP project was brought on track and Union Cabinet approved the extension of NATRIP Project from 1st January 2015 to December 2017 with a revised cost estimate of Rs.3700 crore. NATRiP has completed the following facilities at different centres:-
 - * **Power Train:**
 - a) Mileage Accumulation Chassis Dynamometer (MACD) for 2W, 3W & 4W at ARAI, Pune.
 - b) Engine Test cell (ETC) for Heavy Duty and Light Duty Engines at ARAI, Pune and ICAT, Manesar.
 - c) Sealed Housing Evaporation Determination (SHED) facility for 2W, 3W and 4W at ARAI, Pune.
 - d) Vehicle Test Cell (VTC) for 4W at ARAI, Pune.
- Secretary, DHI led an industry delegation to Hannover Messe, 2016, which was the world's largest platform showcasing manufacturing technologies and innovations. The objective of participation this year was to take forward the benefits of India branding last year, register our presence and claim the manufacturing sector at Hannover Messe, to network for technologies required by the country and at the same time explore avenues leading to technology transfers for our industries.
- MoU has been signed between the DHI and Scientific & Industrial Testing Research Center (SITRC), Coimbatore on setting up of a Center of Excellence (CoE) for development of Smart Submersible Pump for industrial use under the scheme for Enhancement of Competitiveness in the India Capital Goods Sector.
- Secretary, DHI inaugurated the Common Engineering Facility Center of Textile Machinery at Bardoli on 16th December, 2016. This is the first such Center of textile Machinery sponsored by this Ministry and would cater to the textile machinery hub in South Gujarat.
- Bharat Heavy Electricals Ltd. (BHEL) has paid an interim dividend of 40% for fiscal 2016-17. A Cheque of Rs. 123.47 Cr. towards the interim dividend for the year 2016-17 on the equity held by the Government of India was presented to Shri. Anant Geete, Union

Minister of Heavy Industries & Public Enterprises by Shri Atul Sobti, CMD, BHEL in the presence of Secretary, Department of Heavy Industry.

- Hon'ble Prime Minister, presented a cheque of the highest amount among all the organizations of Rs.1.79 cr. to BHEL, at the "Kaushal Mahotsava", as a mark of appreciation for engaging large number of apprentices under the National Apprenticeship Promotion Scheme, representing the contribution to the 'Skill India' initiative.
- For the 26th consecutive year, BHEL received the Star Performer EEPC INDIA National Awards for Export Excellence for the year 2014-15 from Hon'ble Union Minister of Railways, on 13th December, 2016.
