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# Manufacturing

An engine for growth

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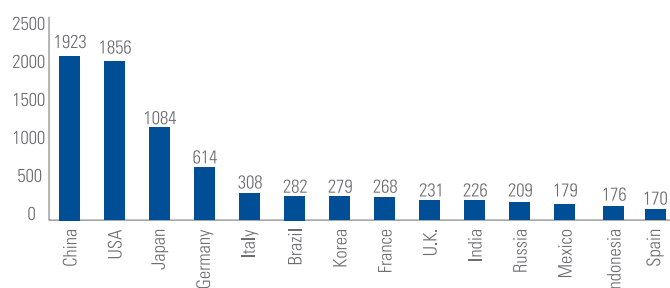
Over the last two decades, India has taken a rather unconventional path to become one of the fastest growing economies of the world. Unlike the transformation stories of many of the other developed economies, India's growth story was chalked by the dynamism of the service sector, while, in contrast, manufacturing has been less robust. The share of the manufacturing sector in the country's GDP has remained stagnant; a trend now observed for nearly three decades.<sup>1</sup> Unlike many of the other emerging market countries, where manufacturing has grown much faster than GDP, for India this certainly has not been the case. Consequently, the manufacturing sector's contribution to the GDP has stagnated at 16 per cent<sup>1</sup>, thereby raising questions about India's development strategy, especially around its potential to generate adequate employment, which has in absolute terms, declined by around 9 per cent between 2004-05 and 2009-10 after having grown by 25 per cent<sup>1</sup> between 1999-00 and 2004-05

The Eleventh Plan period (2007 – 12) was marked by unfavourable global economic conditions brought on by the financial sector crisis of 2007–09, followed by the risks of sovereign debt crisis mid-2011 onwards. Weakening of global demand, exchange-rate volatility and economic and business uncertainty slowed the growth of the Indian manufacturing sector. The year 2009–10 witnessed a transitory return of manufacturing upswing largely on account of a few sectors such as the automotive sector along with a revival in cotton textiles, leather and food products; however, the buoyancy was not enough to bring about significant changes to its contribution to GDP and employment. Growth rate in manufacturing reduced from 9.7 per cent<sup>2</sup> in 2010-11 to 2.7 per cent in 2011-12 and 1 per cent in 2012-13. In FY13, only 3.3 per cent of the country's growth was generated by manufacturing as opposed to 83 per cent contributed by services.

## The potential

- The manufacturing sector in India has the potential to reach USD1 trillion by 2025 and contribute approximately 25 to 30 per cent to India's GDP. It also has the potential create approximately 90 million jobs by 2025.<sup>3</sup>
- A contribution of 25 to 30 per cent to GDP in the future is expected to put India at par with the manufacturing levels of countries such as China, Germany, Japan and the U.S.
- The Manufacturing sector exported approximately USD186.8 billion worth of goods in FY12, which was 61.2 per cent of India's total exports in the same year.<sup>4</sup>

### Manufacturing gross value add (USD billion)



Currently the share of manufacturing GDP in India is low at ~15 per cent when compared to other economies, and in order to realise the true potential of the sector, manufacturing needs to grow at a higher rate than the GDP growth to capture better share of the GDP. Currently India is contributing ~ 2.2 per cent of the world's total manufacturing output, which is at par with developed economies like U.K. and France.

Source: UN National Accounts Main Aggregates Database, Twelfth Five Year Plan (2012–2017) Economic Sectors, Planning Commission, 2013

Sectors	Sector size in INR crore		
	2014	2025	% CAGR (till 2025)
Industrial Manufacturing	7,000	29,584	14%
Chemicals	1,168	3,681	11%
Automotive	3,981	10,273	9%
Engineering	2,772	6,463	8%
Metals and mining	1,870	3,550	6%

<sup>1</sup> Twelfth Five Year Plan (2012–2017) Economic Sectors, Planning Commission, 2013

<sup>2</sup> The Central Statistics Office, Ministry of Statistics and Programme Implementation

<sup>3</sup> "Fulfilling the promise of India's manufacturing sector," McKinsey & Company, March 2012

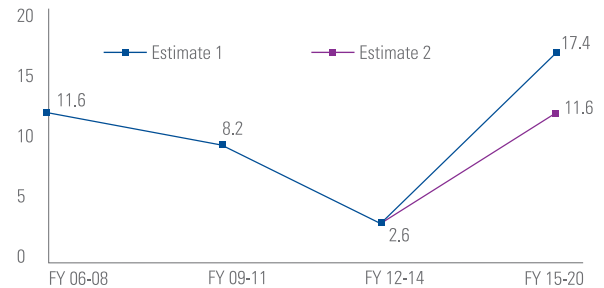
<sup>4</sup> "India's Foreign Trade: 2012-13," RBI, September 2012

# The outlook

If we analyse the growth path which the manufacturing industry experienced before the financial crisis (2008 – 09), the sector is expected to experience a similar growth trajectory in the next three to five years (estimate 1 in the graph below). However, with the new government's focus on manufacturing, which is considered a core industry sector for job creation, they have set the juggernaut rolling in the correct direction. With the revival of the sector coupled with the government's focus on boosting manufacturing, one can also expect a growth rate of at least 1.5 times (estimate 2 in the graph below) in the medium terms (in comparison with the previous best experienced during the pre- financial crisis).<sup>5</sup>

<sup>5</sup>KPMG Analysis 2014

## Manufacturing sector growth expectations



Source: Twelfth Five Year Plan (2012–2017) Economic Sectors, Planning Commission, 2013, KPMG analysis

“ For India to be considered as a strong location for manufacturing, the following would require to be addressed:

- Ease of doing business – India may have to dramatically improve the “Ease of doing business” index to attract any MNC to set their manufacturing shop here. India should seriously consider single window clearances or at least as many windows as necessary.
- Scale – To become a viable alternative to China for manufacturing, MNCs will likely have to look for facilities like land, power, access, etc. that can be easily scaled up over a period of time and at an attractive cost. This calls for a well thought through plan for creating them over different scenarios of volume and costs.
- Infrastructure – ports for easy import and export should be improved multiple times along with connectivity of these ports through rail and road development. Today this is often a bottleneck even for domestic consumption.
- Protection of intellectual property – For attracting industries in high tech areas, government should provide adequate assurance for protecting IP of the technology.
- Labour reforms – This has been long pending agenda of various governments and this seems to be hurting the domestic manufactures already. Global players are unlikely to consider India as their preferred source of manufacturing unless this addressed.
- Skill – government should demonstrate that they are serious bringing global manufacturing to India by investing in Skill development.
- Center of Excellence – government should also plan to promote India in a few industries as a CoE, and thereby demonstrate India's ability to manufacture high quality products to meet global demands and then build on the “Success stories” for replicating to other sectors.
- National manufacturing Policy – Revisit this policy document and fine tune if necessary, and more importantly get on to high speed implementation. ”

- Sukumar SV, Partner and Head - Manufacturing Sector, KPMG in India

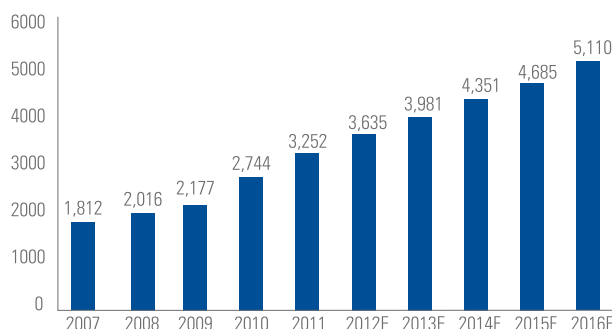
# Sub-sectors of manufacturing

## Metals and mining sector

- The total value of mineral production including minor minerals but excluding atomic minerals in FY12 and FY13 was about USD49.0 billion and USD43.1 billion, respectively<sup>6</sup>
- The value of minerals and ores exported during FY12 was USD36.6 billion, and imported during FY12 was USD197 billion<sup>6</sup>
- By 2020, the metals and mining sector in India has the potential to contribute around USD150 billion to the GDP, create new employment for 2.3 million people and contribute USD40 billion to the government revenues<sup>7</sup>
- In FY13, India had 3,108 operative mines, excluding mining areas for minor minerals, crude petroleum, natural gas and atomic minerals<sup>8</sup>
- India ranks fourth globally in terms of iron ore production and by 2015, India is expected to become the second largest producer of steel<sup>8</sup>
- The government allows 100 per cent FDI under automatic route in the metals and mining sector.

## Automobile sector

### Market size of the automotive sector in India (INR billion)



Source: Automotive Manufacturing in India, MarketLine Industry Profile, May 2013 via Thomson Research, accessed August 2014

- India's automotive sector is one of the largest manufacturing sectors in India; accounting for 22 per cent of India's manufacturing GDP<sup>9</sup>
- By 2016, the Indian automotive manufacturing industry is expected to have a value of INR5,110 billion, an increase of 57.2 per cent since 2011<sup>9</sup>
- During 2007-11, the industry grew at a CAGR of 12.4 per cent to reach INR3,252 billion and is expected to grow at a CAGR of 7.8 per cent during 2011-16 to reach INR5,110 billion<sup>9</sup>
- 100 per cent FDI under the automatic route, allowing free imports of automotive components and de-licensing in the automotive sector has helped in developing the sector<sup>10</sup>
- The auto component sector employs approximately 19 million people (direct and indirect)<sup>11</sup> and the requirement is expected to reach 25 million by 2016 and 35 million by 2022.<sup>11</sup>

<sup>6</sup> "Annual Report 2012-13", Ministry of Mines, GoI

<sup>7</sup> "Reinvigorating the Indian mining sector," CII Global Mining Summit, December 2012

<sup>8</sup> Make in India website

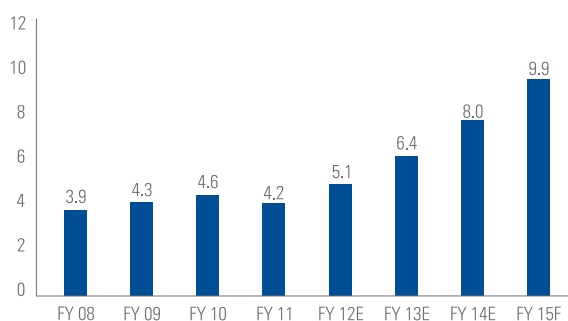
<sup>9</sup> India in Business website, Ministry of External Affairs, GoI

<sup>10</sup> "Automotive Manufacturing in India," Market Line Industry Profile, May 2013 via Thomson Research, accessed August 2014

<sup>11</sup> "Human Resource and Skill Requirements of the Auto and Auto Components Sector," NSDC

## Heavy engineering and construction equipment

Revenues from construction equipment, USD billion



Source: "Construction equipment," IBEF, March 2014

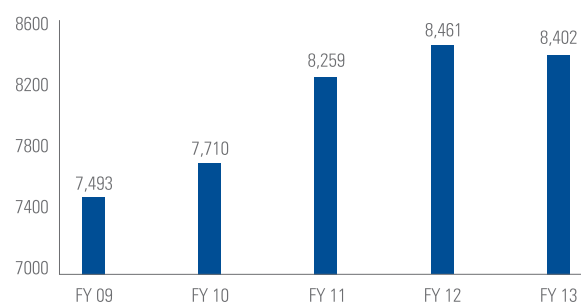
- The construction equipment sector in India was estimated to have generated USD6.4 billion in revenues in FY13, and is expected to reach USD9.9 billion in FY15 and USD22.2 billion in FY20<sup>12</sup>
- The sector derives its demand from the infrastructure industry in India. The Construction equipment sector's capacity in India exceeds the domestic demand which shows potential for increasing exports and improving utilisation<sup>13</sup>
- The heavy engineering sector can be classified into two broad segments; capital goods/machinery and equipment segments.<sup>14</sup> The sector has been growing on the back of core industries such as railways, power, infrastructure, etc.
- India's engineering industry accounts for 27 per cent of the total factories in the industrial sector and represents 63 per cent of the overall foreign collaborations<sup>15</sup>
- India is also a preferred destination by global companies for outsourcing work related to the engineering sector as India has a large base of skilled and lower cost labor long with better designing capabilities.

<sup>12</sup> "Construction equipment," IBEF, March 2014

<sup>13</sup> "Indian construction equipment industry to grow 12per cent; constitute 10per cent of global market," The Economic Times, 11 August 2014

## Chemicals sector

Production of chemicals (in thousand MMT)



Source: Ministry of Chemicals and Fertilizers, GoI; MMT: million metric tonnes Ministry of Chemicals and Fertilizers, GoI; MMT: million metric tonnes

- The Indian chemical industry is the third largest producer in Asia in terms of volume of production, and twelfth in the world. The industry accounts for almost seven per cent of the world's production of dyestuff and dye intermediates, particularly for reactive acid and direct dyes<sup>16</sup>
- The chemical industry is expected to grow at an annual rate of 15 per cent to reach USD290 billion by 2017<sup>16</sup>
- The major export partners of India's chemical sector include Singapore, Germany, USA and China among others. Additionally, China, Saudi Arabia, Singapore and USA are the importing partners for the sector<sup>17</sup>
- Total exports of chemicals grew at a CAGR of 16.2 per cent from USD3.5 billion in FY03 to USD15.5 billion in FY13 whereas imports, during the same period, grew at a CAGR of 19.7 per cent to reach USD22.5 billion in FY13<sup>16</sup>
- Supportive government policies and the domestic environment including 100 per cent FDI under the automatic route and de-licensing the manufacturing of most chemical products, has supported the growth of the sector.

<sup>14</sup> D&B SME Insights website, accessed 10 September 2014

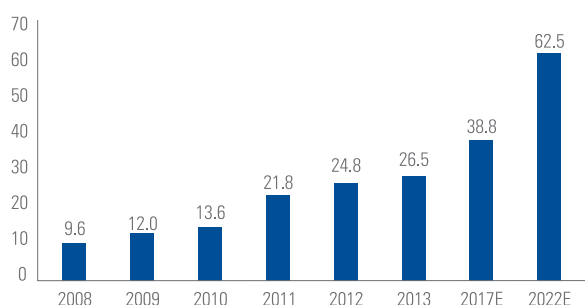
<sup>15</sup> India in business website, accessed 10 September 2014, <http://indianbusiness.nic.in/newdesign/index.php>

<sup>16</sup> "Indian Chemical Industry Analysis," IBEF, April 2014

<sup>17</sup> "Chemical Sector Report," D&B, July 2013 via ISI Emerging Markets, accessed August 2014

## Electronic components

Market size of the electronic component in India, in INR billion



Source: Annual Report FY13, Deity, Government of India

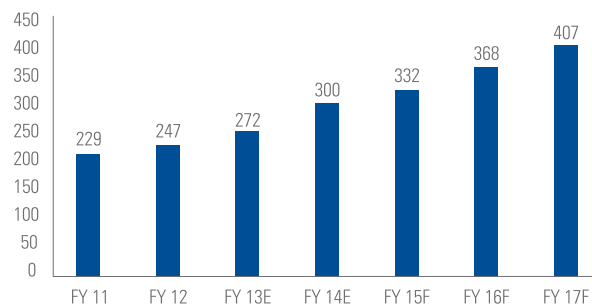
- The electronic component and semiconductor design industry responsible for producing transformers, resistors, electronic tubes and electromechanical components forms the backbone of the electronics manufacturing industry
- In India, the demand for electronic component and semiconductor designs exceeded INR68.1 billion in FY13, with domestic output of 40 per cent of the total demand. A significant share (~30 per cent) of the component production is exported, leaving only about 25 per cent for domestic consumption, which is used in the production of local equipment<sup>18</sup>
- India's electronic component and semiconductor design market is dominated by electro-mechanical and associated components with 27 per cent and 29 per cent shares, respectively. There has been no significant change in their market composition over the years and this trend is likely to continue in the near future<sup>18</sup>
- The electronic component and semiconductor design market size increased from INR9.6 billion in 2008 to INR26.5 billion in 2013 and is estimated to touch INR62.4 billion by 2022<sup>18</sup>
- The organised sector is expected to increase its market share from 80 per cent in 2013 to 85 per cent in 2022, with increasing competition in the sector expected to drive out small enterprises that constitute the unorganised sector.<sup>18</sup>

<sup>18</sup> Annual Report 2012-13, Deity, Government of India

<sup>19</sup> "Sectoral Report: Cement", IBEF, March 2014

## Cement

Production of cement, million tonnes



Source: "Cement sector report," IBEF, March 2014

- The cement production in India has increased at a CAGR of 9.7 per cent to reach 272 MT during FY 06-13. Currently, India is the second largest producer of cement in the world having current capacity of around 370 MT which is expected to grow to 550 MT by FY20<sup>19</sup>
- The cement sector in India is highly regional due to high transportation costs and inherent features of the product
- The sector comprises 167 large cement plants which constitute about 95 per cent of the total installed capacity, while the remainder is constituted by the mini-cement plants<sup>19</sup>
- The sector is divided into five geographical regions; - south, north, east, west and central. Each of these regions has a significant limestone cluster and acts as a major production centre of cement.





# Policies and reforms

The National Manufacturing Policy is a significant policy formulated by the government to facilitate the growth of the manufacturing sector in India. Under the policy, the government has planned to set up National Investment and Manufacturing Zones (NIMZ) to bolster the growth of manufacturing activities in India. These zones are expected to be 5,000 hectares in size with at least 30 per cent area earmarked for processing. An NIMZ is planned to have a single window clearance system for approvals and the government provides exemptions from rules and regulations related to labour, environment, etc. The policy is also expected to leverage the existing incentives/schemes provided by the government and also, a technology acquisition and development fund has been proposed.

## Heavy engineering and construction equipment

- With an aim of accentuating growth in the manufacturing sector, the government would provide 15 per cent exemption on tax to manufacturing companies that invest more than USD18.4 million in plant and machinery over FY15<sup>20</sup>
- The government has eliminated tariff protection on capital goods and has also reduced custom duties on various engineering equipment
- The government has approved a number of SEZs across India for bolstering growth in the sector
- National Manufacturing Policy has been launched by the government with an aim of enhancing the sector's share in GDP to 25 per cent within a decade and creating 100 million jobs by 2022.<sup>20</sup>

## Metals and Mining

- Mining in some specific backward districts is eligible for a complete tax holiday for a period of five years commencing from the date of production, and 30 per cent tax holiday for the period thereafter<sup>21</sup>

- Export profits from specified minerals and ores are eligible for certain exemptions under the Income Tax Act<sup>21</sup>
- Minerals in their finished form are exempt from excise duty
- Low customs duty on capital equipment used for minerals namely, nickel, tin, pig iron, unwrought aluminium
- The government has significantly reduced the duty payable on finished steel products and has also streamlined the associated approval process<sup>22</sup>
- The government is also encouraging private ownership for steel operations and other high priority industries
- Extensive measures to increase coal production have been proposed In the FY14 budget; the Gol has announced the PPP model in coal mining with Coal India Limited. This would allow the entry of private players in the coal sector. A panel has been formed under the Chairmanship of the Coal Secretary to deliberate the different modes of the PPP route.<sup>23</sup>

## Key highlights from the Union Budget 2014-15 for the metals and mining sector

- Increase in export duty on bauxite from 10 to 20 per cent. The increase would limit the exports of bauxite improving the overall availability for domestic companies<sup>23</sup>
- Custom duty on imported flat-rolled products of stainless steel hiked from 5 to 7.5 per cent. This move is aimed at reducing the competition for domestic steel manufacturers from Chinese, Japanese and Korean manufacturers<sup>24</sup>
- Amendment in the Mines and Minerals Development and Regulation (MMDR) Bill Act to increase investment in mining<sup>25</sup>
- Raise in the export duty on bauxite to provide support to the local aluminium producers
- Proposal for imposing a uniform tax of 2.5 per cent, and a 2 per cent countervailing duty on all types of coal.<sup>26</sup>

<sup>20</sup> Report on Engineering, IBEF, March 2014

<sup>21</sup> "A Brief Report on Mineral and Mining Industry in India," Corporate Catalyst India, October 2013

<sup>22</sup> "Metals and Mining," IBEF, March 2014

<sup>23</sup> "Panel on PPP models for coal likely to meet this week," Zeebiz.com, 12 May 2013

<sup>24</sup> "Budget 2014: Several positives for metal and mining sector," The Economic Times, 10 July 2014

<sup>25</sup> "Metals and Mining sector lauds Budget 2014 moves," The Economic Times, 10 July 2014

<sup>26</sup> "India to increase Bauxite export tax to aid aluminum makers," Bloomberg, 10 July 2014

## Chemical sector

- The government has been encouraging R&D activities in the chemical sector so as to enhance the growth prospects
- Policies have been initiated for setting up integrated Petroleum, Chemicals and Petrochemicals Investment Regions (PCPIR)<sup>27</sup>
- The government is continuously reducing the list of reserved chemical items for production in the small-scale sector
- The government is also planning to set-up reverse SEZs in various countries such as, Iran and Myanmar so as to make certain chemicals available at affordable prices.<sup>28</sup>

### Key highlights from the Union Budget 2014-2015 for chemical sector

- The government has proposed to launch a new urea policy and overhaul the subsidy regime<sup>29</sup>
- Reduction in basic customs duty on reformate from 10.0 per cent to 7.5 per cent, on ethane, propane, ethylene, propylene, butadiene and ortho-xylene from 5.0 per cent to 2.5 per cent, on methyl alcohol and denatured ethyl alcohol from 7.5 to 5.0 per cent.<sup>30</sup>

## Electrical components

- Industrial licensing has been done away with in the electronics sector, except for manufacturing electronic aerospace and defence equipment<sup>31</sup>
- Customs duty on specified raw materials/inputs used for manufacture of electronic components and optical fibres and cables is 0 per cent<sup>31</sup>
- Zero duty Export Promotion Capital Goods scheme (EPCG) which allows import of capital goods at 0 per cent customs duty is available to exporters of electronic products
- The government is laying thrust on skill development and is planning to launch Skill India Programme to skill the youth with an emphasis on employability and entrepreneur skills<sup>32</sup>
- A nationwide "District level Incubation and Accelerator Programme" has been planned to support incubation of new ideas and also to provide necessary support for accelerating entrepreneurship<sup>32</sup>
- Government is planning to set-up dedicated clusters to promote manufacturing of electronic components.

### Key Highlights from the Union Budget 2014-15

- INR14.18 billion allocated for the Prime Minister's Employment Generation Programme
- INR1.32 billion allocated for providing assistance to training institutions
- INR3.72 billion allocated to National Small Industries Corporation Ltd
- INR140 million allocated for providing marketing assistance
- INR4.88 billion allocated for improving the quality of Technology Support Institutions and Programmes
- INR3.48 billion (including INR1.5 billion for Technology Centres Network) allocated for infrastructure development and capacity building
- Additional allocation of INR2 billion has been provided for India Innovation, Entrepreneurship and Agro-Industries Fund.

## Cement

- As per the Union Budget 2014-15, the government is planning to lay increased emphasis on the development of housing and infrastructure sectors. This would act as a driving force for the growth of the sector<sup>33</sup>
- There has been an increased emphasis by the government on establishing SEZs with about 119 new SEZs being notified<sup>34</sup>
- The cement sector received a FDI inflow of \$2.9 billion (or 1.3 per cent of the total FDI inflow) from April 2000 to May 2014<sup>35</sup>
- The government is emphasising on the development of private players thrive in the industry hence, has been approving their investment schemes.

<sup>27</sup> Indian Chemical Industry Analysis," IBEF, April 2014

<sup>28</sup> "Chemical Industry Digest," 2014

<sup>29</sup> Budget 2014: Fertilizer industry welcome the budget proposal of a new urea policy', The Economic Times, 10 July 2014

<sup>30</sup> Government of India Budget 2014-15', ICRA, July 2014

<sup>31</sup> Policies, Deity.gov.in

<sup>32</sup> "Highlights of Union Budget 2014-15", ELCINA

<sup>33</sup> "Budget 2014 provides mixed bag for cement sector, say industry players", The Economic Times, 10 July 2014

<sup>34</sup> Exports from SEZs up 31 per cent to 4.76 lakh crore in 2012-13, The Financial Express, 29 June 2013, via Factiva, accessed 16 July 2013

<sup>35</sup> Fact sheet on FDI, DIPP, May 2014

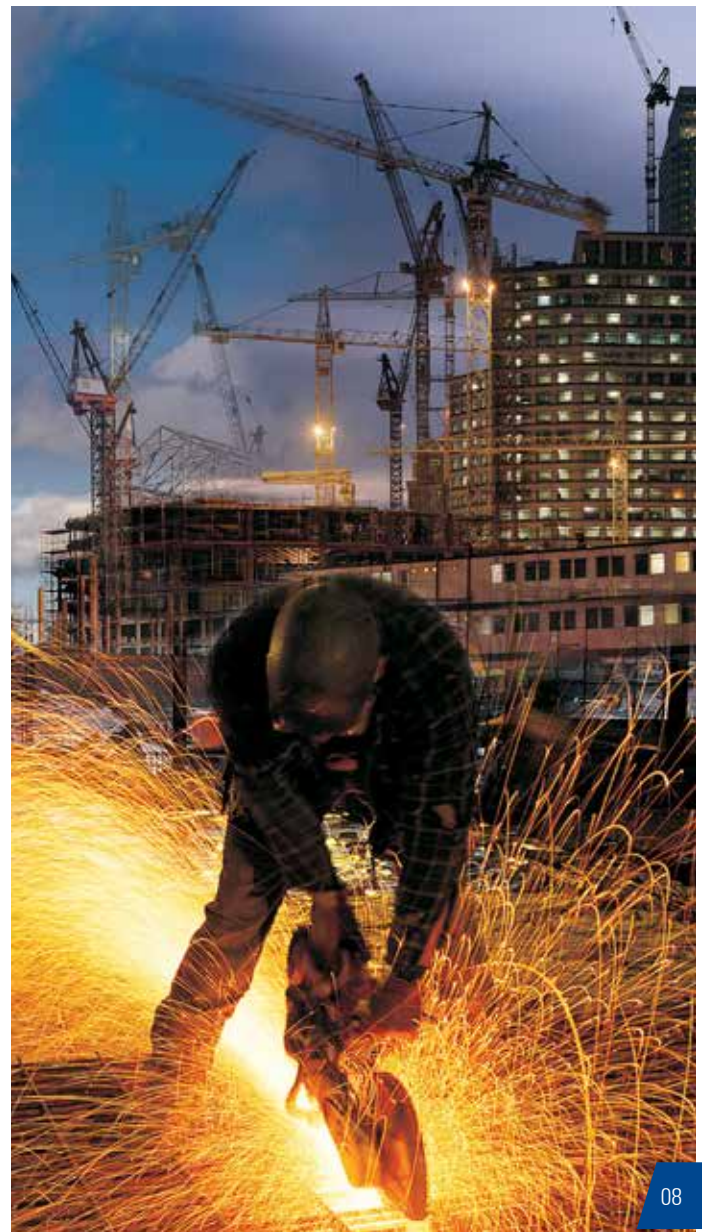
# Recommendations based on the 'Make in India' campaign

## "Make in India"

- R&D activities in the sectors should be encouraged by providing necessary incentives and concessions
- Consolidate multiple legislations governing the chemical sector into one integrated chemical legislation<sup>36</sup>
- Tax and duty concessions should be granted to chemical industry for certain products
- Active framing of policies for setting up integrated PCPIRs<sup>36</sup>
- Simplified procedures for FDIs
- Develop infrastructure facilities such as, roads and railways keeping in mind the regional concentration of the industry<sup>37</sup>
- Measures such as development of new ports and tax rationalisation of different grades of coal would help in easing the business atmosphere<sup>38</sup>
- Emphasis should be on developing a simple, stable and predictable policy regime for the metals and mining sector
- Promote of sustainable mining practices<sup>38</sup>
- The government is facilitating common sourcing from global suppliers to reduce MSME transaction and other sourcing costs
- Set-up institutions for providing technical education to the workforce in heavy engineering and construction equipment sector.

## Zero Defect and Zero Effect for exports from India

- Focus on the development of skilled manpower at cheap prices
- Reduce the demand supply gap in human resource
- Set-up benchmarks in line with the international standards
- The government should concentrate on technology up-gradation in the sector<sup>36</sup>
- Set-up a technology up-gradation fund.



<sup>36</sup> "Indian Chemical Industry," FICCI, accessed August 2014

<sup>37</sup> "Emerging SMEs of India: Chemical," D&B, accessed August 2014

<sup>38</sup> "India Budget 2014: Positive measures will spur demand for metal and mining companies," Forbes India, 10 July 2014

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