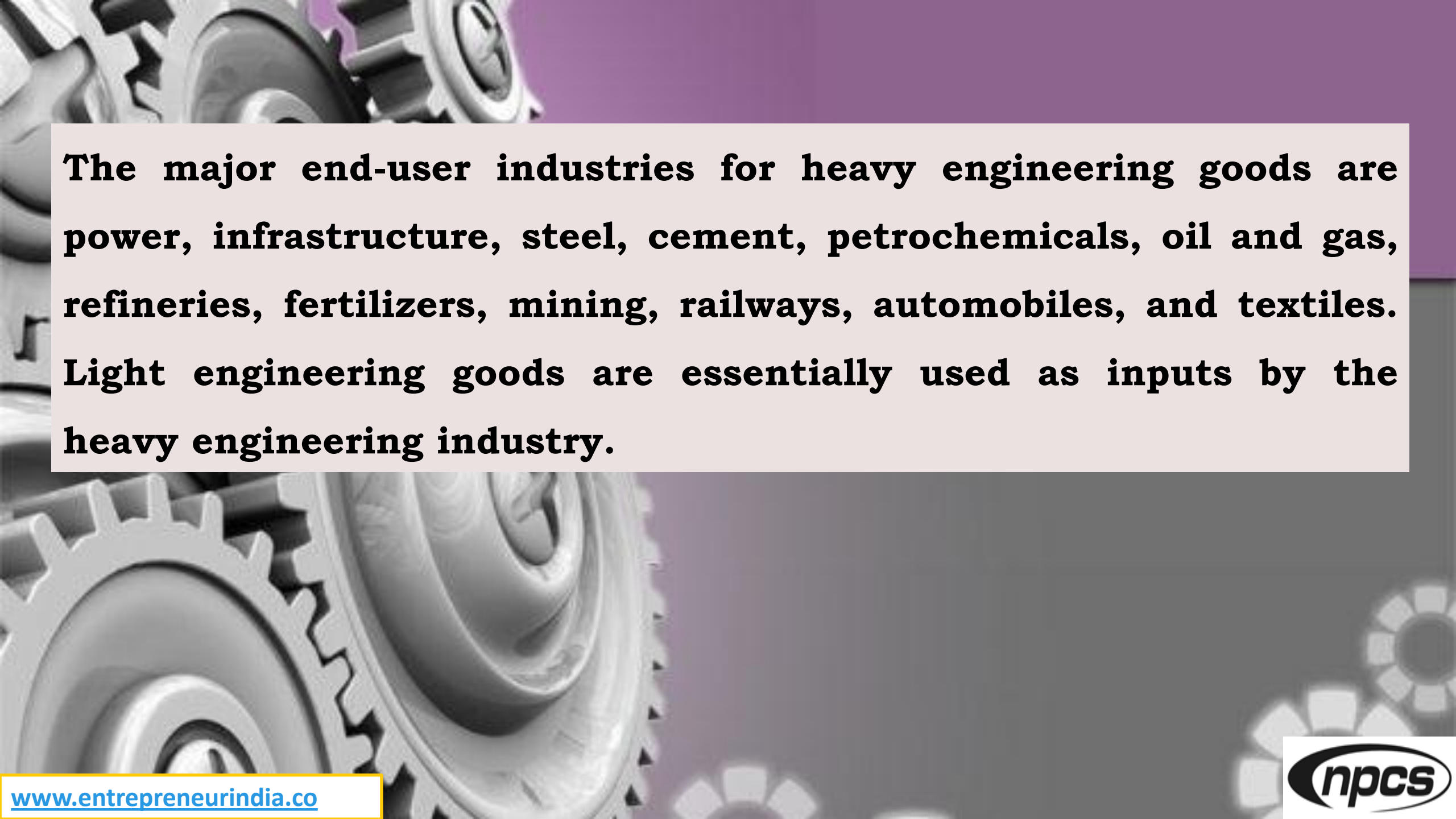


**Production of Cooling Tower, Super Enamelled Copper Wire, Inner Grooved Copper Tube, Automobile Brake Shoes, Electrical Stamping, Aluminium Alloy from Scrap and Virgin Metal, Electric Motors, High Mast Poles, Copper Powder by Electrolytic Process, Tractor Manufacturing, ERW Steel Pipes, Nuts and Bolts, TMT Bars, Pig Iron Plant, Ceramic Foam Filters, Copper Ingot / Copper Ash from Copper Ore (Engineering Goods)**

# Introduction

**Engineering is the largest among industrial sectors in India. It is diverse with a number of segments and can be broadly categorized into two segments: heavy engineering and light engineering. Engineering is relatively less fragmented at the top and more fragmented at the lower end in terms of technology and capital investment and is dominated by players.**



**The major end-user industries for heavy engineering goods are power, infrastructure, steel, cement, petrochemicals, oil and gas, refineries, fertilizers, mining, railways, automobiles, and textiles. Light engineering goods are essentially used as inputs by the heavy engineering industry.**

# **The Engineering Components Includes the Following Product Categories:**

## **Castings**

**Cast components like housings, shafts, covers, blocks etc. in cast iron as well as S.G. Iron.**

## **Forging**

**Forged products including die-forging for the engineering sector.**

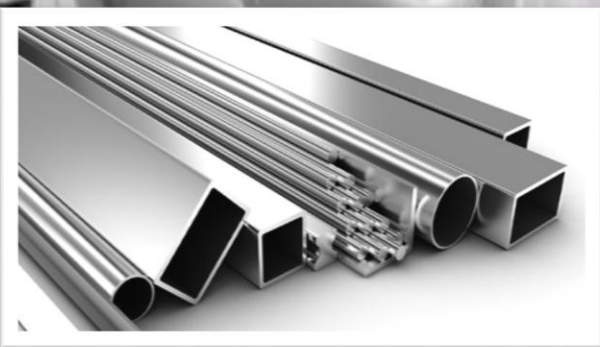


## **Gears**

**Gears are critical part of the engineering industry.**


## **Other Components**

**Draglines, Drill Pipes, Jigs and Fixtures for the Engineering, Mining and Other Core Industries.**



## **Market Outlook**

**India has a strong and diversified industrial base for the production of engineering goods and services, with the term engineering goods being used as a catch-all for all of the following: ferrous and non-ferrous materials used for producing other products and components, components manufactured from such materials, intermediate products such as bearings, valves, pumps and compressors that go into the production of other engineering machinery and systems, and such engineering machinery and systems themselves.**



**India's rising engineering exports include heavy engineering goods, transport equipment, capital goods, other machinery/equipment and light engineering products like castings, forgings and fasteners.**

**The Indian Engineering sector has witnessed a remarkable growth over the last few years driven by increased investments in infrastructure and industrial production. The engineering sector, being closely associated with the manufacturing and infrastructure sectors, is of strategic importance to India's economy.**



**The capital goods & engineering turnover in India is expected to reach US\$ 125.4 billion by FY17.**

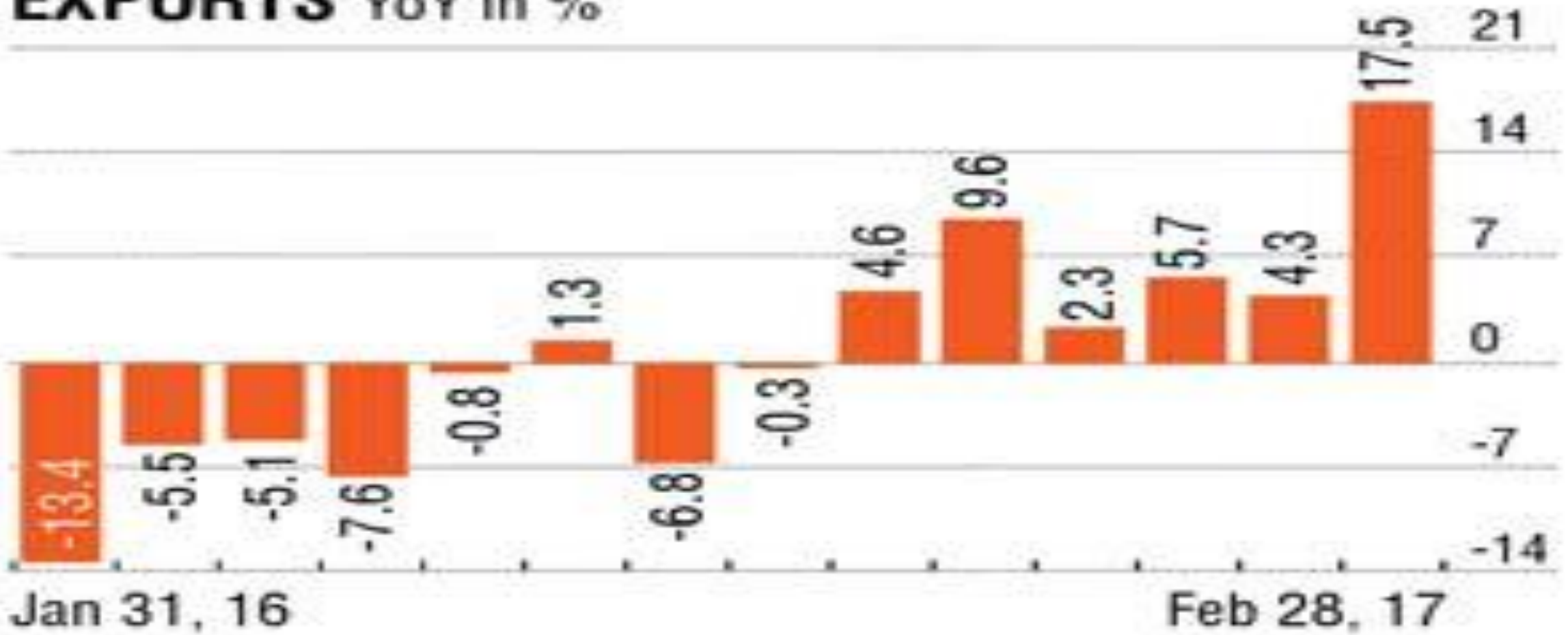
**India exports its engineering goods mostly to the US and Europe, which accounts for over 60 per cent of the total exports. Recently, India's engineering exports to Japan and South Korea have also increased with shipments to these two countries rising by 16 and 60 per cent respectively. Sri Lanka, Nepal and Bangladesh have also emerged as the major destinations for India's engineering exports.**

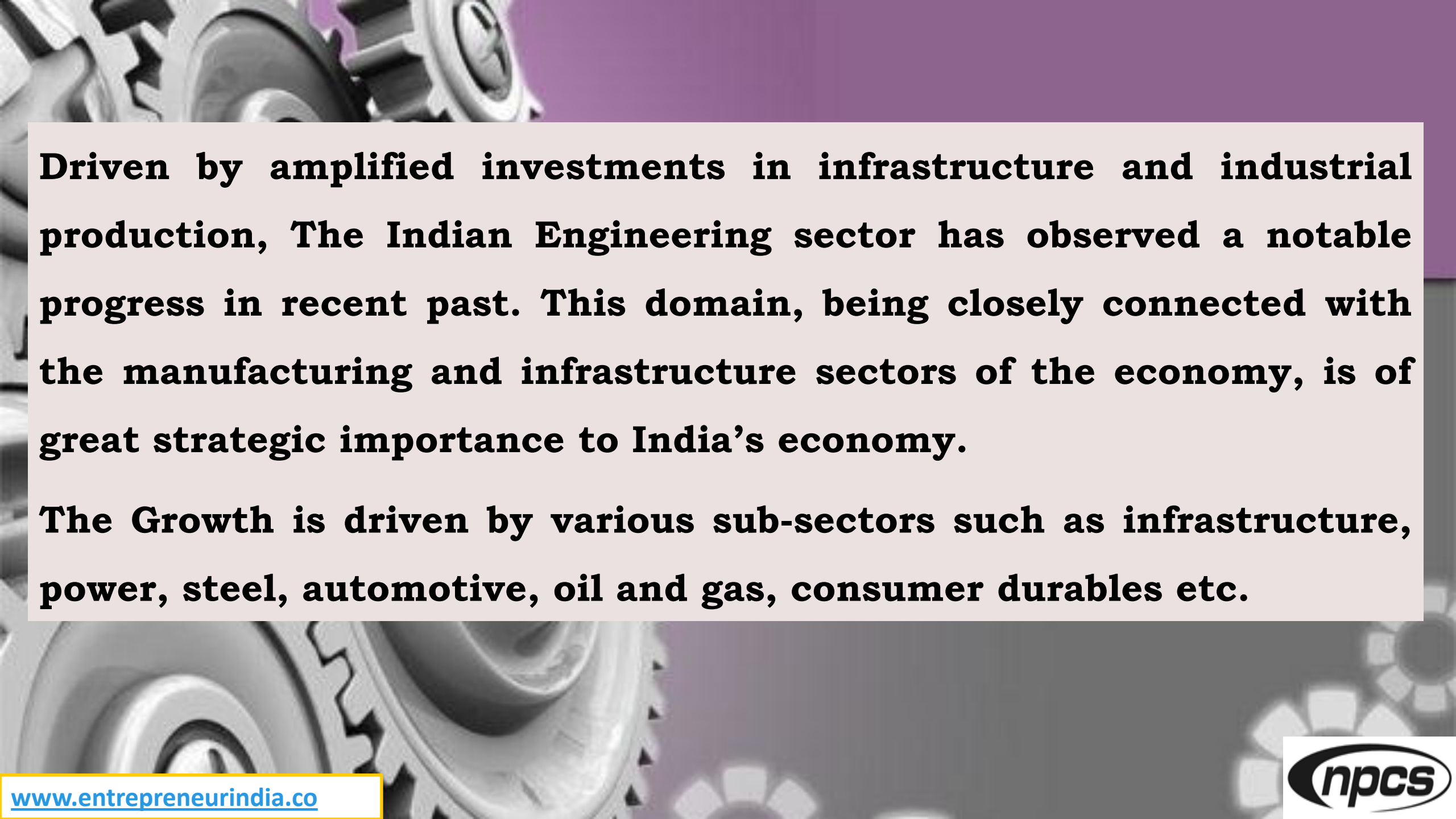


**Engineering exports from India grew 11.33 per cent year-on-year to reach US\$ 65.23 billion in FY 2016-17.**

# Exports to the European Union and the Middle East


## EXPORTS YoY in %





**Driven by amplified investments in infrastructure and industrial production, The Indian Engineering sector has observed a notable progress in recent past. This domain, being closely connected with the manufacturing and infrastructure sectors of the economy, is of great strategic importance to India's economy.**

**The Growth is driven by various sub-sectors such as infrastructure, power, steel, automotive, oil and gas, consumer durables etc.**



**Compelled by resilient demand for engineering goods, exports from India recorded a double digit growth at 10.22 per cent to touch US\$ 26.4 billion in June 2014 from US\$ 24.02 billion in the corresponding month last year. This progress can be credited to the robust expansion in export of aircraft, spacecraft parts and automobiles.**

**The engineering sector has witnessed tremendous growth, led by significant investments in power projects and infrastructure development. In 2016-17, the share of engineering exports in India's total merchandise exports stood at 23.75 per cent.**


**Engineering exports from India stood at US\$ 65.23 billion in 2016-17.**

**Top ten importers of Indian engineering products during F2016-17 were US (US\$ 7.06 billion), UAE (US\$ 4.03 billion), Singapore (US\$ 2.80 billion), UK (US\$ 2.48 billion), Mexico (US\$ 2.45 billion), Malaysia (US\$ 2.39 billion), Germany (US\$ 2.21 billion), Nepal (US\$ 2.16 billion), Italy (US\$ 2.08 billion) and Bangladesh (US\$ 1.99 billion).**

## Export of Engineering Goods in the Total Export of India

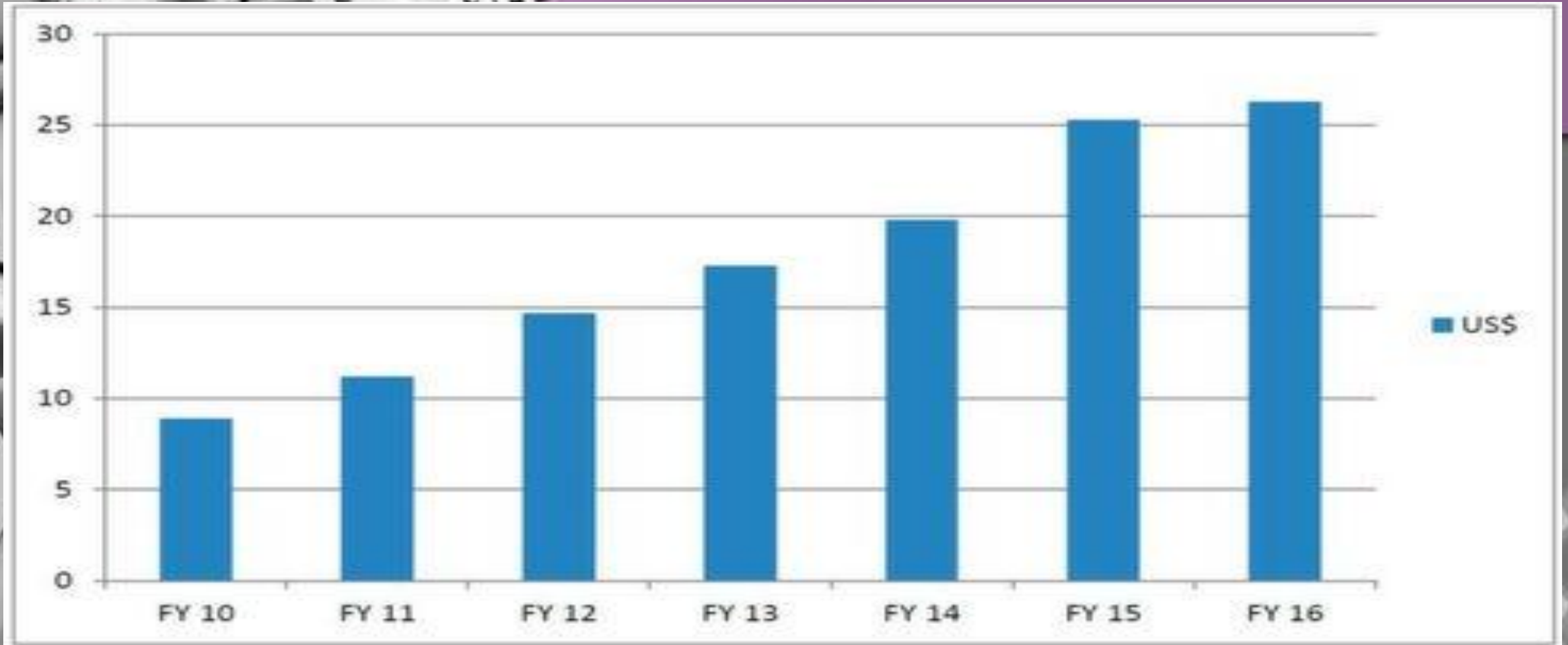
Products	Products							
	1989-90	1994-95	1999-00	2004-05	2009-10	2011-12	2012-13	2013-14
Iron and steel	0.59	2.00	2.26	4.69	2.02	2.11	2.07	2.40
Manufacture of Metals	2.68	2.68	3.32	4.07	3.08	3.15	3.34	3.10
Machinery and Instrument	3.63	2.75	3.21	4.45	5.33	4.17	5.09	5.19
Transport Equipment	1.90	2.92	2.20	3.38	5.49	6.86	6.11	6.86
Electronic Goods	1.82	2.10	1.84	2.19	3.05	2.91	2.68	2.44
Others	1.38	1.39	1.13	1.96	2.40	2.25	2.45	2.24





**The capital goods and engineering turnover in India is expected to reach 125.4 billion USD by the fiscal year 2017.**

# India: Engineering Industry





Niir Project Consultancy Services (NPCS) can  
provide Detailed Project Report on

## Engineering Goods

## ➤ **Cooling Tower**

**Cooling tower is a chamber in which outdoor atmosphere flows through a spray of entering hot water, which is to be cooled. Cooling towers are used in large diesel engines, nuclear power stations and air-conditioning systems to absorb the heat generated during various processes and thereby maintaining the associated surface temperature within permissible limits....[Read more](#)**

## ➤ **Super Enamelled Copper Wire**

**Enamelled copper wire is an essential material for motor and transformer winding. There is a heavy consumption of enamelled copper wire. Enamelled copper wire is available in different gauges ranging from 32 gauges to 18 gauges. The gauge of the enamelled wire depends upon the winding required for the specific motor or transformer....[Read more](#)**

## ➤ **Inner Grooved Copper Tube**

**Ongoing rise of Air Conditioners and Refrigerators in the market and production in GCC and other part of the world and Heat Transfer Systems in engineering industries and automobile sectors all over the world, makes Copper tubes an essential and unmatched engineering material as Copper possesses superior heat transfer properties with excellent corrosion resistant....[Read more](#)**

## ➤ **Automobile Brake Shoes**

**Automobile manufacturers do not produce each and every item in the factory. Since the automobile vehicles are comprising of more than 5,000 parts. They are wholly depending upon the ancillary articles manufacturers. Their units are come under this section. These industries are on priority. Break shoe is used in the brake of an automobile....[Read more](#)**

## ➤ **Electrical Stamping**

**These stampings are used in electrical machines and equipments to form the ferromagnetic cores, which are subjected to cycles of magnetization. High silicon content steel, which shows much higher permeabilities at low densities is used to decrease the inducted e.m.f per lamina and to increase the resistance of the path in which the Eddy current flows since the Eddy-current loss varies directly to the square of thickness of the lamina....[Read more](#)**



## ➤ **Aluminium Alloy from Scrap and Virgin Metal**

**Aluminium, the second most plentiful metallic element on earth, became an economic competitor in engineering applications as recently as the end of the 19th century. It was to become a metal for its time. The emergence of three important industrial developments would, by demanding material characteristics consistent with the unique qualities of aluminium and its alloys, greatly benefit growth in the production and use of the new metal....[Read more](#)**

## ➤ **Electric Motors**

**The extensive utilization of many types of constructional variants of electric motors in industry, commerce and the home would make a comprehensive guide for their selection, application and maintenance runs into many pages. The determination of motor requirements for machine tools involves the assessment of loading to request resulting from speeds and feeds determined over a wide range....[Read more](#)**

## ➤ **High Mast Poles**

**High mast poles are newly ventured high pillars for using high mast lighting, flood lighting, sports lighting, traffic signals, street lighting etc. It is machine made or moulded product. It is manufactured by M.S. plate with galvanized uniform coat. It has now largely growing market....[Read more](#)**

## ➤ **Copper Powder by Electrolytic Process**

**The principal methods for producing copper powder is electrolytic deposition at high current densities and the atomization of molten metal. Copper powder is also formed by cementation or by pressured precipitation from aqueous solutions, but such precipitates are of little commercial interest....[Read more](#)**

## ➤ **Tractor Manufacturing**

**Tractor is one of the most important farming machine. We can say that tractor is the forehand of the farming industry. This is the blessing of god as well as science to get largest amount crops in the limited farming land with limited time. It belongs to the automobile industry....[Read more](#)**

## ➤ **ERW Steel Pipes**

**Electric Resistance Welded Pipe that is also known as ERW pipe and it is made of strips of steel that is hot rolled and passed through forming rolls and finally welded together. It is used for usually high diameter. ERW steel pipes and tubes are used in various engineering purposes, fencing, scaffolding, line pipes etc.....[Read more](#)**

## ➤ **Nuts and Bolts**

**Nuts and Bolts are most commonly used items in the family of industrial fasteners and their demand is fast increasing due to expansion of industries in the country. Bolt is a piece of metal rod whose one end is upset and at the other end threading is done. Nut is device, which rolls on these threads. In nuts internal threading is done through the combination of nuts and bolts combination into appropriate sizes....[Read more](#)**

## ➤ **TMT Bars**

**Steel is a generic name for a group of ferrous metals which due to their abundance durability versatility and low cost are most useful metallic material known to mankind. Thermo Mechanical Treatment (TMT) process for reinforcement bars is opening up new vistas in composite RCC, the re-enforcing steel is the costliest constituent (30 To 40% Per Cu. M. of concrete)....[Read more](#)**



## ➤ **Pig Iron Plant**

**Pig Iron is a raw material for all the iron and steel based industries and hence, required to be responsive to the requirements of pig iron users. Pig iron as hot metal goes to the integrated steels making plant for refining and conversion into steel of various types to cater to the downstream industries like Hot Rolling Mills, Forging Plant, and Extrusion Plant etc. Iron ores, coal/coke, limestone and dolomite are the main raw materials used in steel industries....[Read more](#)**

## ➤ **Ceramic Foam Filters**

**Ceramic foam filters are commonly used for filtering a variety of molten metals, including aluminium, copper & iron. As a whole there will be good market demand of ceramic filter. It can be assumed that there are few broad gaps of the product manufacturers and market demand....[Read more](#)**

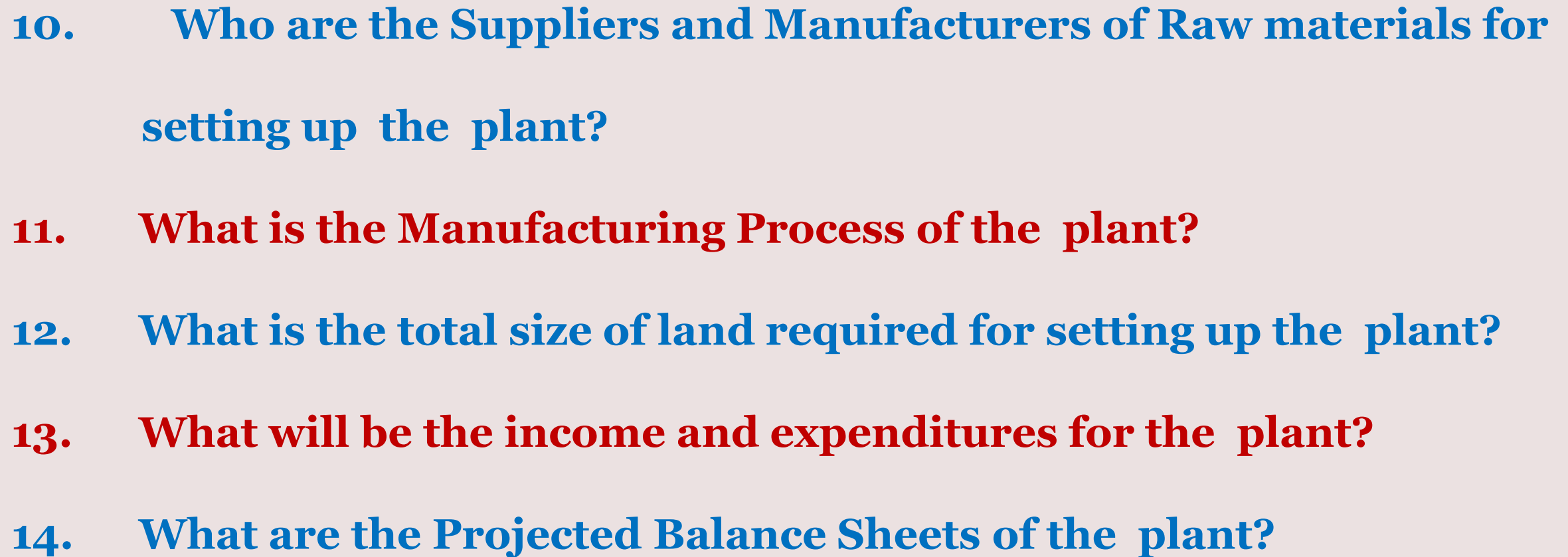
**For more details visit at:**

- [Engineering Goods](#)
- [Automobile Components & Allied Products](#)
- [Steel, Iron, Ferrous, Non-Ferrous Metals with Casting and Forging, Aluminium, Ferroalloys Technology](#)

# Major Queries/Questions Answered in our Report?

- 1. How has the industry performed so far and how will it perform in the coming years?**
- 2. What is the Project Feasibility of the Plant?**
- 3. What are the requirements of Working Capital for setting up the plant?**
- 4. What is the structure of the industry and who are the key/major players?**

- 5. What is the total project cost for setting up the plant?**
- 6. What are the operating costs for setting up the plant?**
- 7. What are the machinery and equipment requirements for setting up the plant?**
- 8. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up the plant?**
- 9. What are the requirements of raw material for setting up the plant?**

- 
- 10. Who are the Suppliers and Manufacturers of Raw materials for setting up the plant?**
  - 11. What is the Manufacturing Process of the plant?**
  - 12. What is the total size of land required for setting up the plant?**
  - 13. What will be the income and expenditures for the plant?**
  - 14. What are the Projected Balance Sheets of the plant?**

- 15. What are the requirement of utilities and overheads for setting up the plant?**
- 16. What is the Built up Area Requirement and cost for setting up the plant?**
- 17. What are the Personnel (Manpower) Requirements for setting up the plant?**
- 18. What are Statistics of Import & Export for the Industry?**
- 19. What is the time required to break-even?**

- 20. What is the Break-Even Analysis of the plant?**
- 21. What are the Project financials of the plant?**
- 22. What are the Profitability Ratios of the plant?**
- 23. What is the Sensitivity Analysis-Price/Volume of the plant?**
- 24. What are the Projected Pay-Back Period and IRR of the plant?**
- 25. What is the Process Flow Sheet Diagram of the plant?**
- 26. What are the Market Opportunities for setting up the plant?**
- 27. What is the Market Study and Assessment for setting up the plant?**
- 28. What is the Plant Layout for setting up the plant?**



# Reasons for buying our report:

- **The report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product**
- **The report provides vital information on the product like it's characteristics and segmentation**
- **The report helps you market and place the product correctly by identifying the target customer group of the product**

- **The report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials**
- **The report provides a glimpse of government regulations applicable on the industry**
- **The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions**

# Our Approach:

- **Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.**
- **The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players**
- **We use reliable sources of information and databases. And information from such sources is processed by us and included in the report**



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# Contact us

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**Tel: +91-11-23843955, 23845654, 23845886, 8800733955**

**Mobile: +91-9811043595 Fax: +91-11-23841561**

**Website : [www.entrepreneurindia.co](http://www.entrepreneurindia.co) , [www.niir.org](http://www.niir.org)**

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# ***NIIR PROJECT CONSULTANCY SERVICES***

**An ISO 9001:2015 Company**



## Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*

## What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Business Plan*
- *Market Research Reports*
- *Technology Books and Directory*
- *Industry Trend*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

## How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*

# Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

# Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
- *Non-profit Organizations, NBFC's*
- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*

# Sectors We Cover

- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*



- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

# Contact us

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