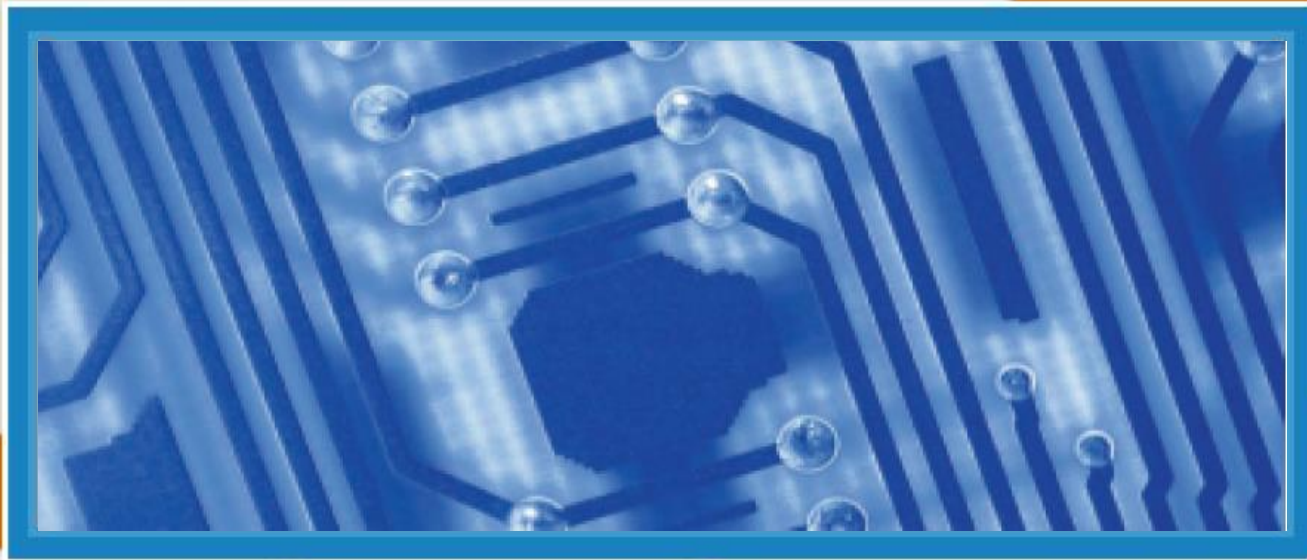


ELECTRONICS



MARCH 2015

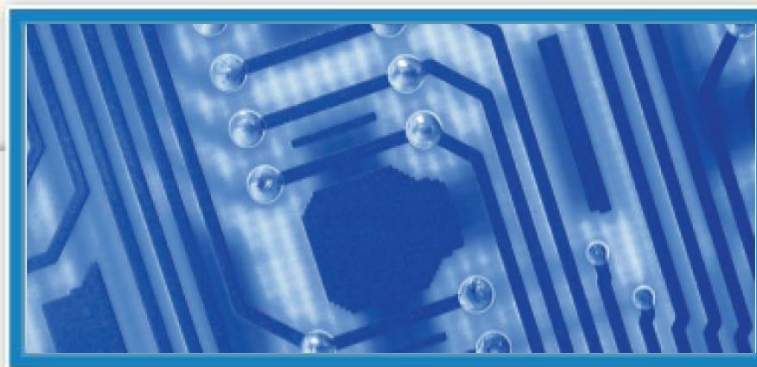
For updated information, please visit www.ibef.org

ELECTRONICS



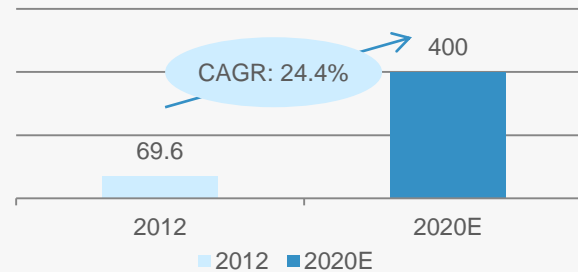
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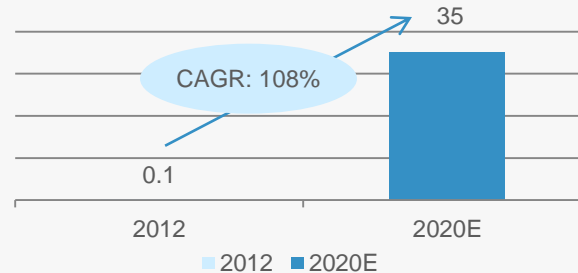
EXECUTIVE SUMMARY ... (1/2)

One of the largest growing electronics market in the world



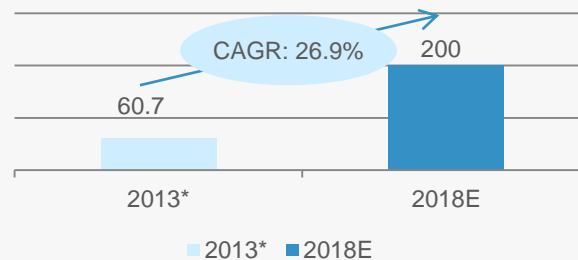
By 2020, the electronics market in India is expected to increase with a CAGR of 24.4 per cent to USD400 billion from USD69.6 billion in 2012

Promotion of LED products to boost demand



By 2020, the LED market in India is expected to expand to USD35 billion from USD0.1 billion in 2012

Digitisation to drive growth in DTH market

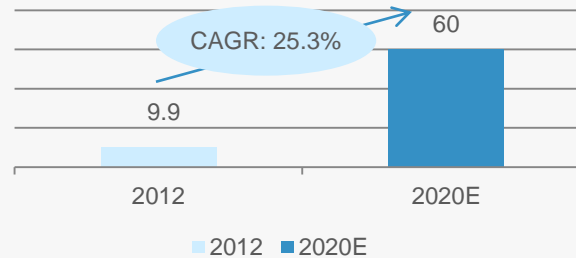


By 2018, the number of DTH subscribers in India is expected to rise to 200 million from 60.7 million in 2013*

Notes: DTH - Direct-to-Home (satellite television broadcasting); CAGR - Compound Annual Growth Rate, LED - Light Emitting Diode, *As on September 2013

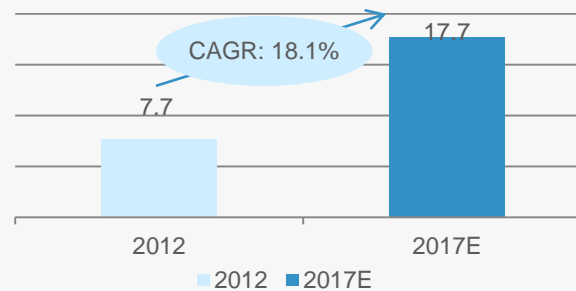
EXECUTIVE SUMMARY ... (2/2)

Rising demand and availability of talent to boost growth in the semiconductor design market



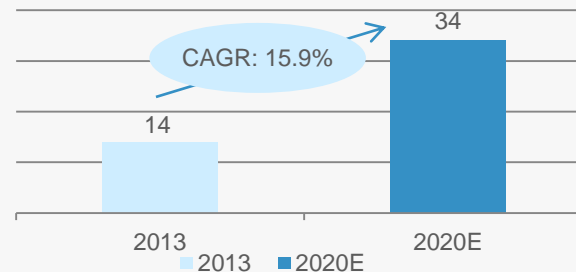
By 2020, the semiconductor design market in India is expected to increase with a CAGR of 25.3 per cent to USD60 billion from USD9.9 billion in 2012

World's third-largest TV market



By 2017, the television industry in India is expected to expand to USD17.7 billion from USD7.7 billion in 2012

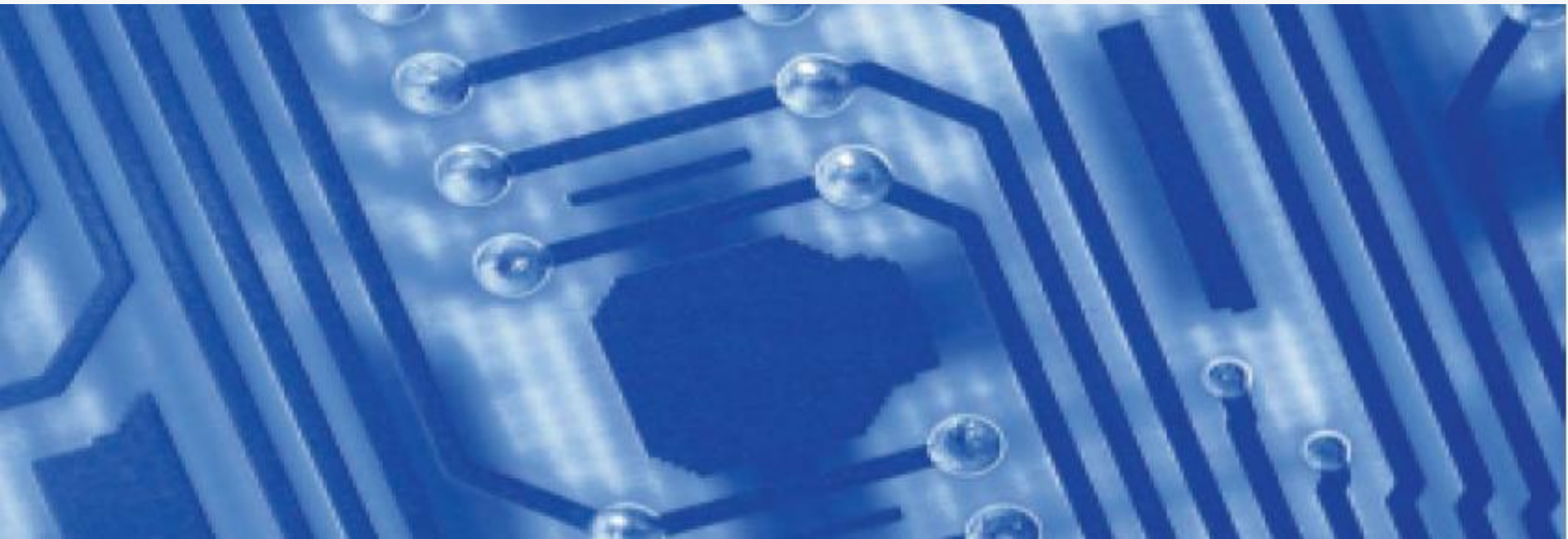
Rising teledensity in the country is leading to higher demand for telecom equipment



By 2020, demand for telecom equipment in India is expected to rise to USD34 billion from USD13.9 billion in 2012-13*

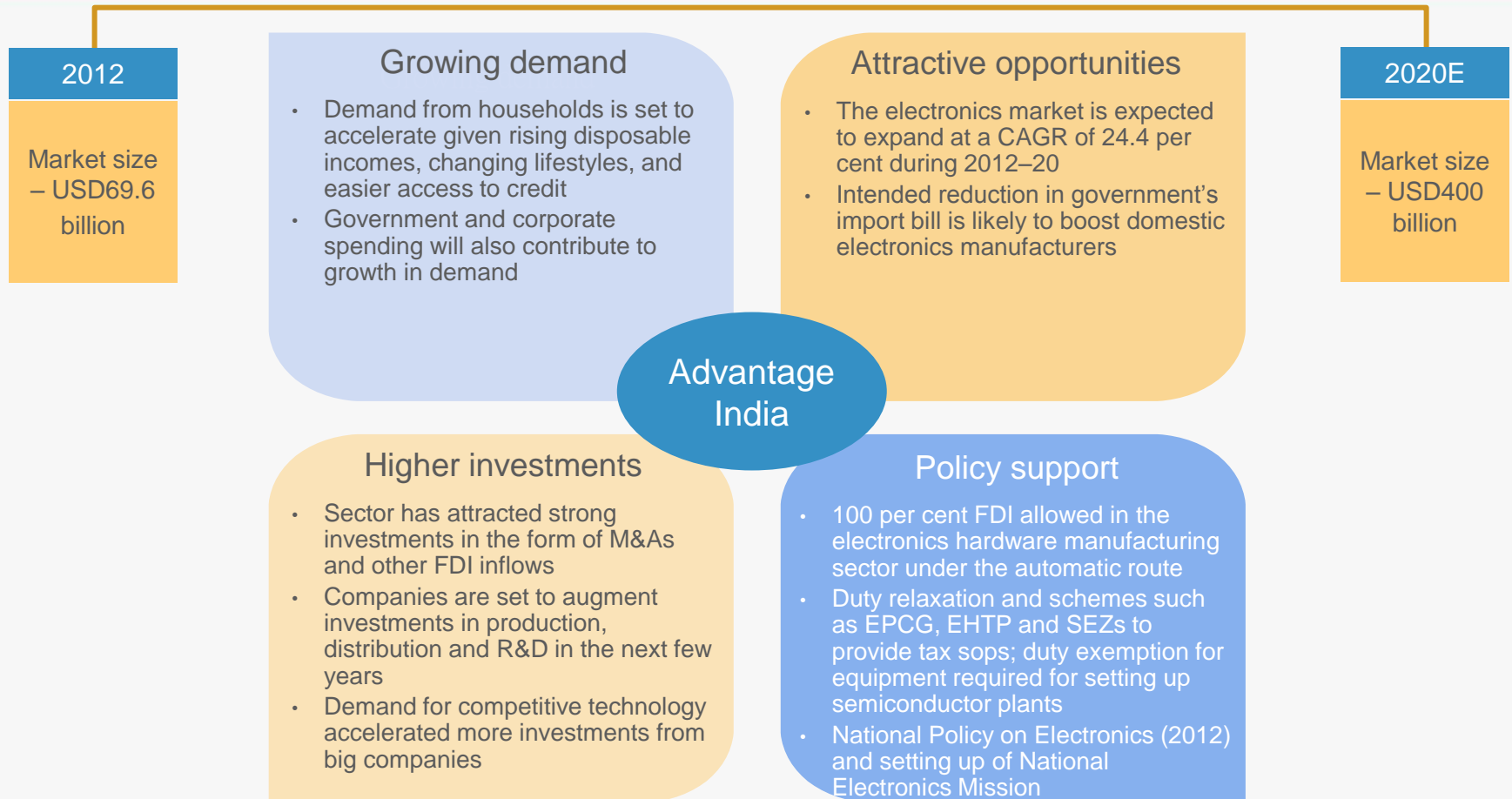
Source: Department of Electronics & Information Technology; Indian Semiconductor Association; KPMG; Aranca Research
Notes: CAGR – Compound Annual Growth Rate, *- Estimate

ELECTRONICS

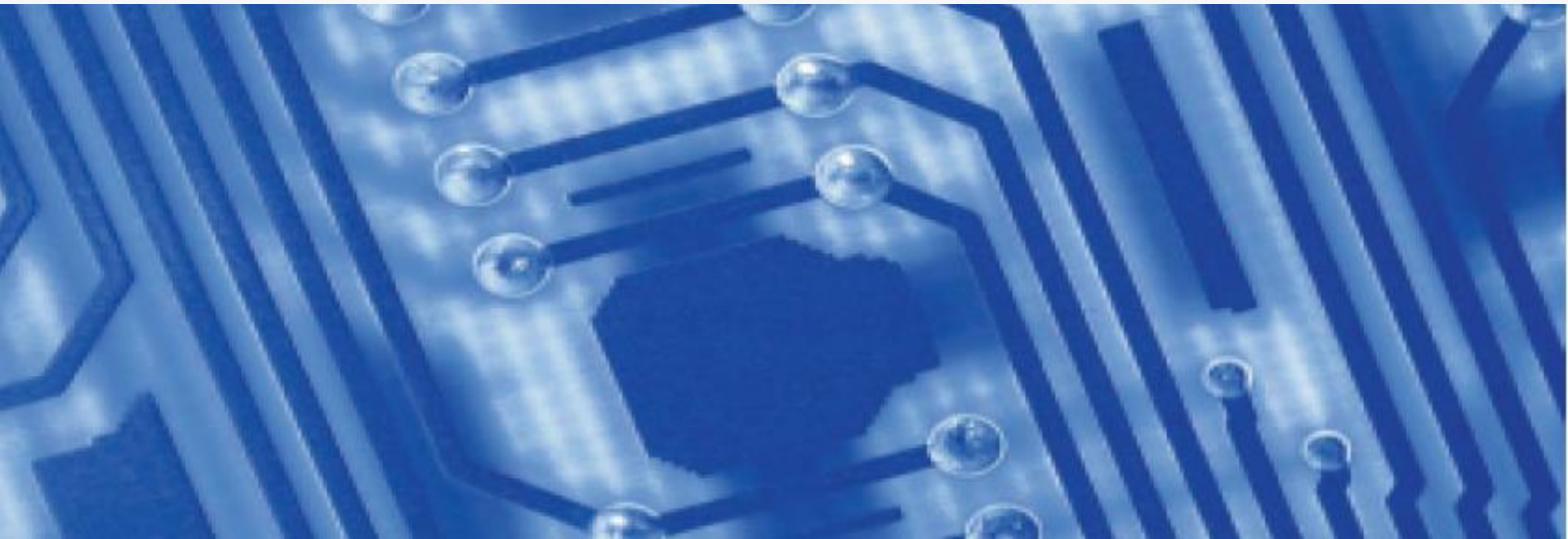


ADVANTAGE INDIA

MARCH 2015

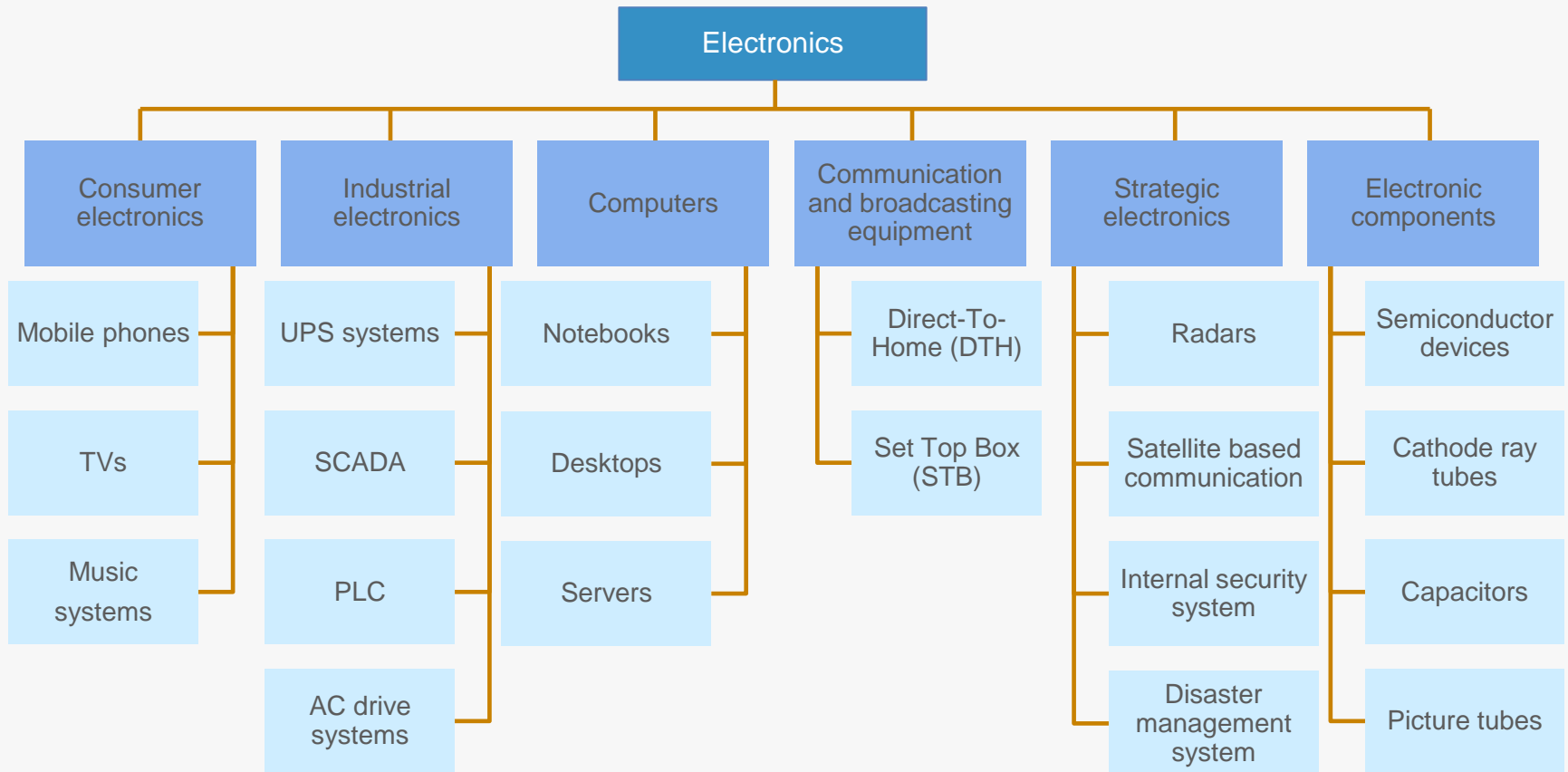


Source: Corporate Catalyst India; 2020E – Estimate for calendar year 2020 by Department of Information Technology; Aranca Research
Notes: FDI – Foreign Direct Investment; FY – Indian Financial Year (April–March); USD – US dollar, EPCG – Export Promotion Capital Goods Scheme; EHTP – Electronic Hardware Technology Park; SEZ – Special Economic Zone; CAGR – Compound Annual Growth Rate, E - Estimated



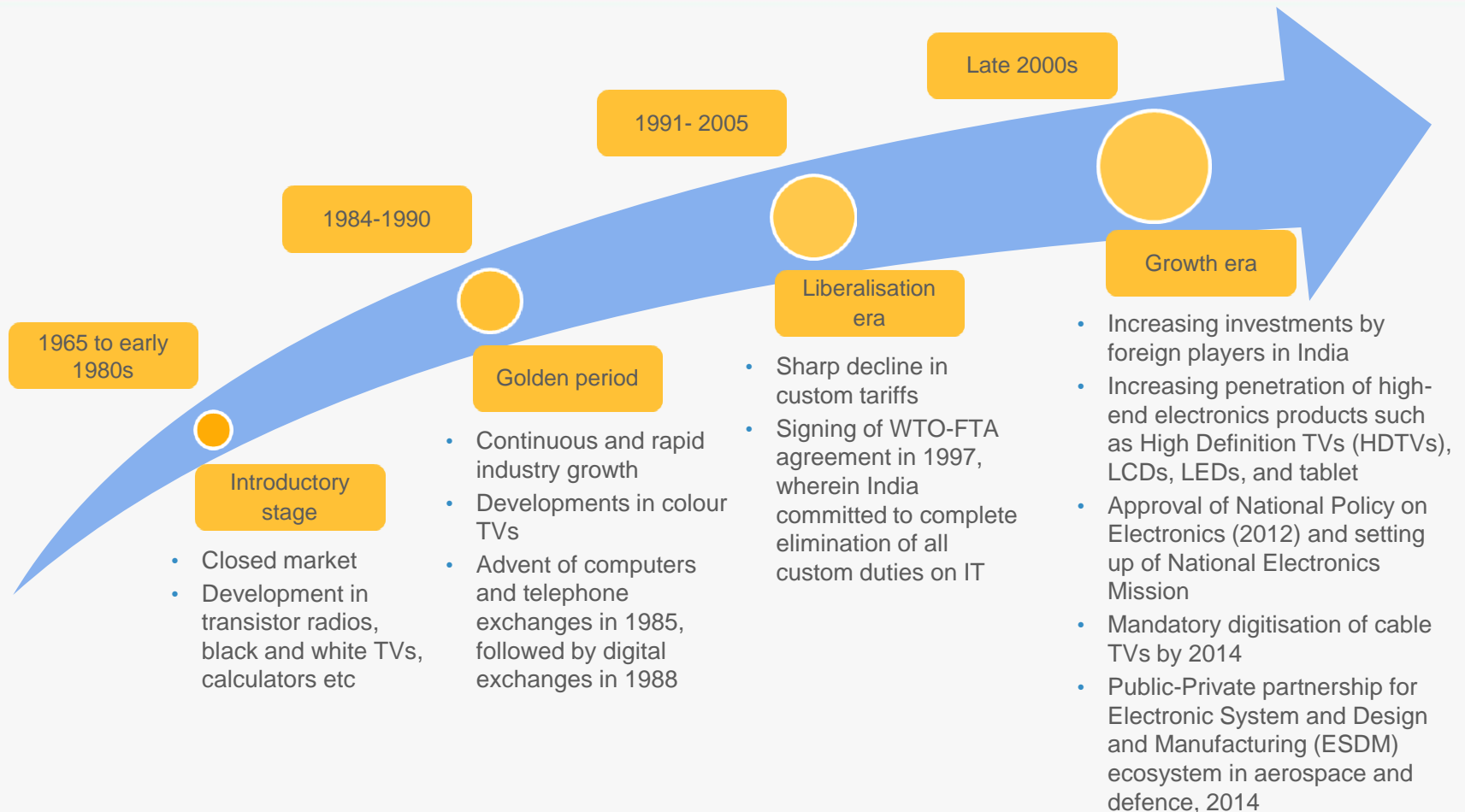
MARKET OVERVIEW AND TRENDS

THE INDIAN ELECTRONICS SECTOR IS SPLIT INTO SIX PRODUCT SEGMENTS



Source: Department of Information Technology (2010–11 Annual Report); Corporate Catalyst India; Aranca Research
Notes: SCADA – Supervisory Control and Data Acquisition; PLC – Programmable Logic Controller

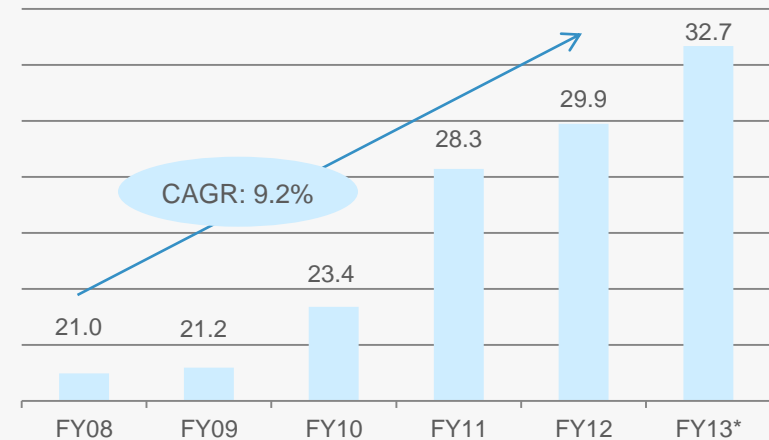
EVOLUTION OF THE INDIAN ELECTRONICS SECTOR



ELECTRONICS PRODUCTION IN INDIA HAS BEEN GROWING AT A RAPID PACE

- * Total production of electronics hardware goods in India is estimated to reach at USD32.7 billion in FY13* and USD104 billion by 2020
- * Production expanded at a CAGR of 9.2 per cent during FY08–13*
- * High production is majorly contributed by accelerating demand for advanced TVs, Mobile phones, Computers and defence related electronic equipments during FY08 to FY13

Value of electronics hardware production in India
(USD billion)

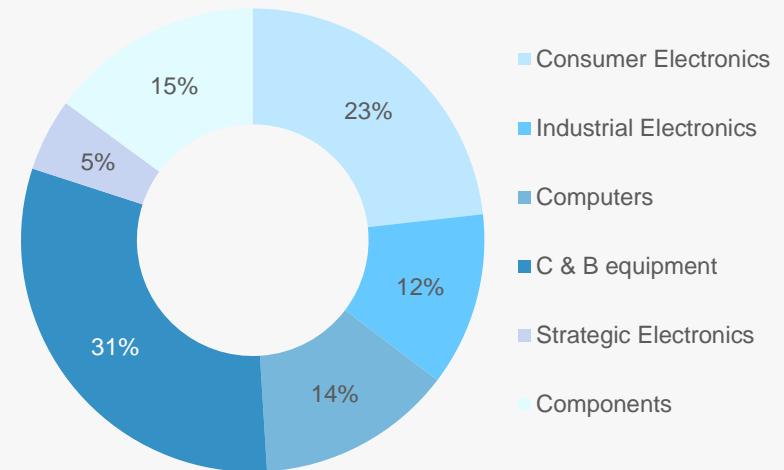


Source: Department of Information Technology
(2012–13 Annual Report); Aranca Research
Note: FY13* - Estimates

C&B EQUIPMENT AND CONSUMER ELECTRONICS HAVE THE HIGHEST SHARE IN PRODUCTION

- * According to government estimates, communication and broadcasting equipment constituted 31 per cent (the highest share) of total production of electronic goods in India in FY13; consumer electronics had the next highest share of 23 per cent
- * Not surprisingly, computers are a key component of total electronics output in India (14 per cent in FY13*); the segment's share is likely to go up over this decade, given greater policy focus on encouraging computer hardware manufacturing
- * Industrial electronics contributed 12 per cent of the total output of electronics goods industry in FY13. Industrial electronics is expected to growth at a considerable pace with the new plans and schemes by govt.

Shares in total production of electronic goods (FY13*)

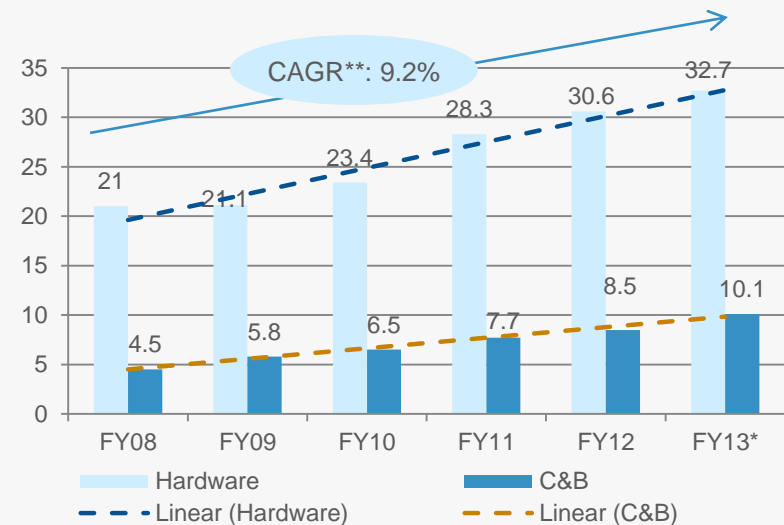


Source: Department of Information Technology (2012–13 Annual Report); Aranca Research
Notes: C&B – Communication and Broadcasting; * – Estimates

C&B EQUIPMENT HAS BEEN THE KEY DRIVER OF THE ELECTRONICS SECTOR IN INDIA ... (1/2)

- * Production (by value) of C&B equipment in India is expected to expand at a CAGR of 17.5 per cent over FY08–13 (production in the segment is likely to reach USD10.1 billion in FY13 from USD8.5 billion in FY12)
- * Growth in the segment is expected to far outpace the overall growth of electronics goods production in the country (CAGR of 9.2 per cent over the same period); given C&B equipment’s large share in the electronics sector, it emerged as the key growth driver for the overall sector

Comparison in production trends of C&B equipment and the overall electronics hardware sector in India (USD billion)



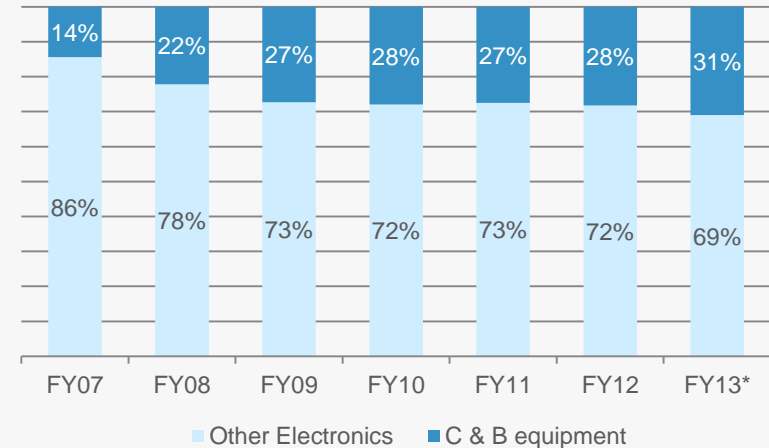
Source: Department of Information Technology (2012–13 Annual Report); Aranca Research

Notes: C&B – Communication and Broadcasting; FY13* – Estimates, CAGR** - is for total hardware electronics

C&B EQUIPMENT HAS BEEN THE KEY DRIVER OF THE ELECTRONICS SECTOR IN INDIA ... (2/2)

- * Production value of all other segments in the electronics sector (other than C&B equipment) grew at a rate of 12.7 per cent over FY07-12
- * With growth in C&B equipment far outpacing those in other segments, the former's share in total electronics production has doubled over FY07-12 to 28.3 per cent and is estimated to reach 31 per cent in FY13*

Share of C&B equipment in electronics production over FY07-13*

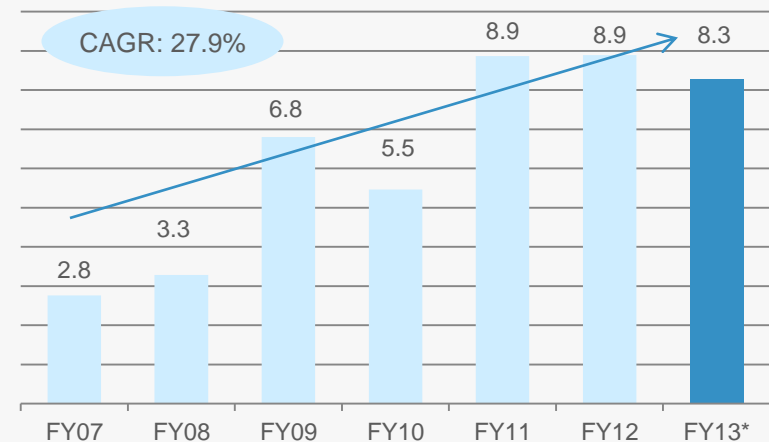


Source: Department of Information Technology (2012-13 Annual Report);
Aranca Research
Notes: C&B – Communication and Broadcasting; FY13* – Estimates

ELECTRONICS EXPORTS FROM INDIA HAVE OUTPACED TOTAL PRODUCTION IN THE SECTOR

- * Electronic exports from India is expected to reach USD8.3 billion in FY13*, over FY07–12, exports from the sector (CAGR: 27.9 per cent)
- * Yet again, as in total production, growth in exports was led by C&B equipment; electronic components was the other key sub-segment
- * Technological improvements and competitively cost effectiveness are main drivers for demand of Indian electronics products abroad

Electronics exports from India (USD billion)

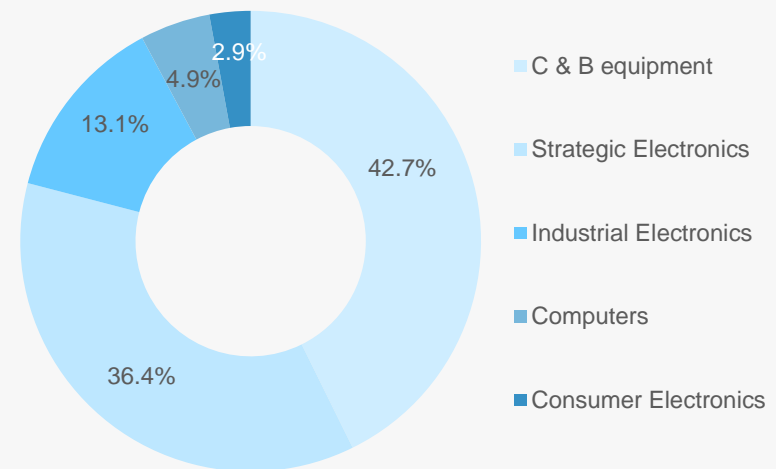


Source: Department of Information Technology (2012–13 Annual Report); Electronics and Computer Software Export Promotion Council; Aranca Research
Notes: C&B – Communication and Broadcasting; FY13* – Estimates

LARGE SHARES FOR C&B EQUIPMENT AND COMPONENTS IN TOTAL ELECTRONICS EXPORTS






- * Exports of C&B equipment and Strategic Electronics together account for around 80 per cent of total electronics exports in FY12
- * Exports of C&B equipment increased at a CAGR of 132.3 per cent during FY08–12 (highest among all segments), followed by Strategic Electronics at a CAGR of 26.3 per cent during the same period

Shares in electronics exports from India (FY12)








Source: Department of Information Technology (2011–12 Annual Report); Aranca Research
Note: C&B – Communication and Broadcasting

KEY PLAYERS IN THE ELECTRONICS SECTOR ... (1/2)

| Company | Business description |
|---|---|
|  <p>भारत इलेक्ट्रॉनिक्स BHARAT ELECTRONICS</p> | <ul style="list-style-type: none"> Established to meet specialised needs of Indian defence services Focuses on contract manufacturing, design and manufacturing services, software development and quality assurance, has got plans to venture into solar energy |
|  <p>VIDEOCON</p> | <ul style="list-style-type: none"> Third largest consumer durables manufacturer in India after LG and Samsung, holds one fourth of the consumer durables market in India Manufactures and markets TVs, DVD players, microwave ovens, refrigerators, washing machines, ACs and power backup solutions |
|  <p>LG</p> | <ul style="list-style-type: none"> Second largest leader in consumer durables after Samsung Manufactures TVs, audio-visual solutions, computers, mobile phones, refrigerators, washing machines, microwave ovens, vacuum cleaners and Ac's |
|  <p>SAMSUNG</p> | <ul style="list-style-type: none"> Largest player in the consumer durables market, provides employment to around 8000 people Manufactures TVs, home theatre systems, DVD players, mobile phones, digital cameras and camcorders, refrigerators, ACs, washing machines, microwave ovens and computers, leads smart phone segment |
|  <p>HCL</p> | <ul style="list-style-type: none"> Leading IT hardware and software provider, extensive global offshore infrastructure and offices in 31 countries Manufactures and markets PCs, PC servers, storage solutions, display products and other electronic products |

Source: Company websites; Dataquest; Corporate Catalyst India; Aranca Research
Notes: DVD – Digital Video Disc; AC – Air Conditioner; TV – Television; PC – Personal Computer

KEY PLAYERS IN THE ELECTRONICS SECTOR ... (2/2)

| Company | Business description |
|---|---|
|  | <ul style="list-style-type: none"> • World's second-largest company in the optical storage media segment • Supplies products to a number of branded players such as Sony, Verbatim, TDK, Maxell, Imation and Samsung, • Also has a presence in the photovoltaic and is the largest home entertainment company |
|  | <ul style="list-style-type: none"> • Offers high-value, high-margin design services for mobile phones and telecom/networking software • Manufactures TV tuners, set top boxes, energy meters, networking cards, drug delivery devices, diagnostic equipment |
|  | <ul style="list-style-type: none"> • Offers state-of-the-art solutions for Frequency Control Products (FCP), Electronic Manufacturing Service (EMS) and Hybrid Micro Circuits (HMC), also has presence in Defence & Aerospace, Space industry |
|  | <ul style="list-style-type: none"> • Acquired Celetronix, one of the largest electronic equipment manufacturers in India, in 2006 • Offers printed circuit boards, enclosure integration, and distribution and repair services with in-region design services support |
|  | <ul style="list-style-type: none"> • Largest Indian integrated manufacturer of a wide range of display devices such as TV picture tubes, CRT guns, heaters and cathodes, and deflection yokes • Operates a facility in Germany to manufacture high-tech, high-resolution CRTs for demanding applications such as aircraft avionics and medical monitors |

Source: Company websites; Dataquest; Corporate Catalyst India; Aranca Research

Notes: CRT – Cathode Ray Tube; * – This list is indicative

NOTABLE TRENDS IN THE ELECTRONICS SECTOR ... (1/2)

Consumer electronics

- Increased presence of organised retail and affordability due to technological advancement
- Expansion into new segments such as HDTVs, tablets and smart phones
- Colour TV is the largest contributor, with total production of about 13 million units in 2012, and the export value of USD262 million in the same period

Industrial electronics

- Application of state-of-the-art systems such as SCADA, PLC and AC drive systems across various sections of the industry
- Expertise in conceptualising such systems and their erection and commissioning
- Acquisition of export orders through international competitive bidding. Total exports stood at around USD1.2 billion in FY12

Computers

- One of the fastest-growing IT systems and hardware market in Asia Pacific
- Notebooks segment is estimated to have recorded a growth rate of 16 per cent in FY13*; tablet ownership increased from 8 per cent in 2010 to 12 per cent in 2011
- Total exports were USD448 million in FY12
- Expansion of server market into smaller cities, and small and medium businesses

Source: Department of Information Technology (2012–13 Annual Report);
Corporate Catalyst India; Accenture EHT Research; Aranca Research,
Note: FY13* - Estimates

NOTABLE TRENDS IN THE ELECTRONICS SECTOR ... (2/2)

Strategic electronics

- India's defence sector is poised for substantial growth; the country is expected to be one of the top five markets for defence equipment by 2015. India defence industry has grown at an average rate of 13.4 per cent per year during 2007-12
- Economic growth and low costs are likely to provide impetus to aerospace market
- Nuclear power to play a large role in India's energy security needs

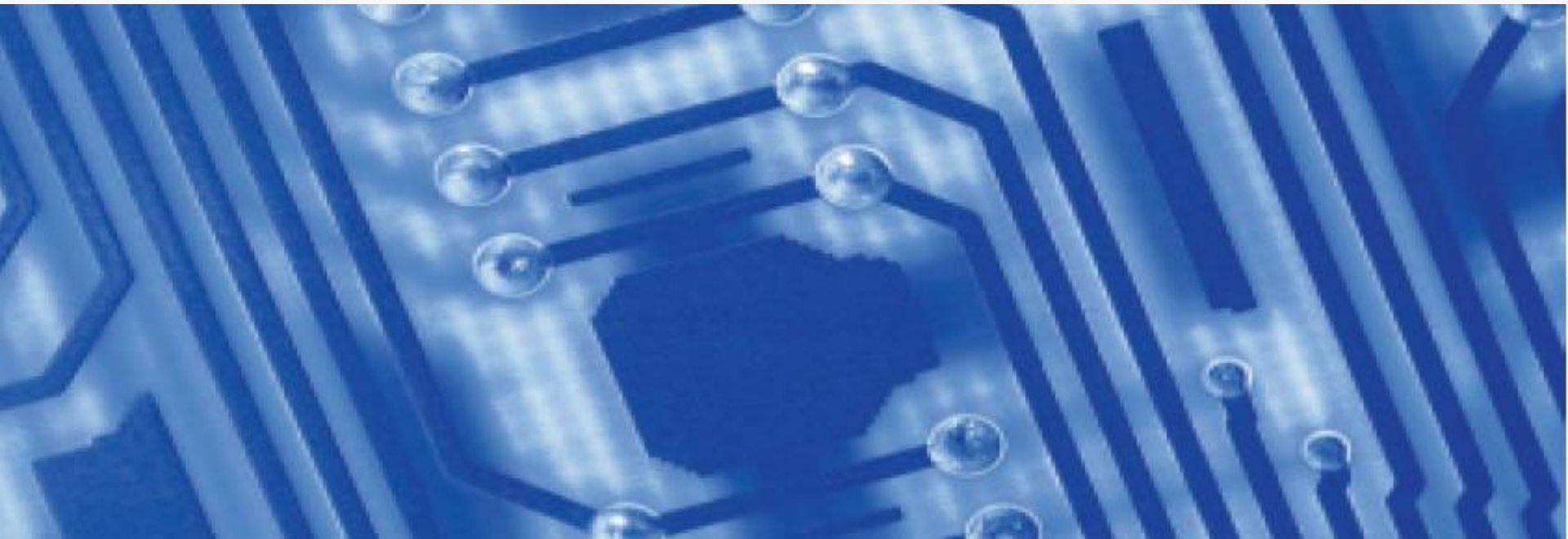
Electronic components

- Semiconductors lead segmental growth, with exports at USD3.3 billion in FY12
- High growth in key determinants for electronic components, namely consumer electronics, telecom, defence and IT verticals

C&B equipments

- Increasing telephone penetration due to falling tariffs in the world's second most populous country, with exports at USD3.9 billion in FY12
- Growing broadband subscriber base
- DTH subscription grew to 60.7 million in September 2013 from 25 million in 2010, and is expected to reach 200 million by 2018

Source: Department of Information Technology (2012–13 Annual Report); Corporate Catalyst India; Aranca Research, TRAI
Notes: C&B – Communication and Broadcasting; DTH – Direct-to-Home (Satellite Television Broadcasting)



PORTER FIVE FORCES ANALYSIS

PORTERS' FIVE FORCES ANALYSIS

Competitive Rivalry

- Competitive rivalry is quite high in this sector, as players use innovation and product differentiation to beat peers
- Each player adopts different strategies to capture market share; for example, one player innovates while another diversifies, thus intensifying the rivalry in the sector

Threat of New Entrants

- Threat is low due to capital-intensive nature of the industry
- Evolving technology, brand loyalty block entry

Substitute Products

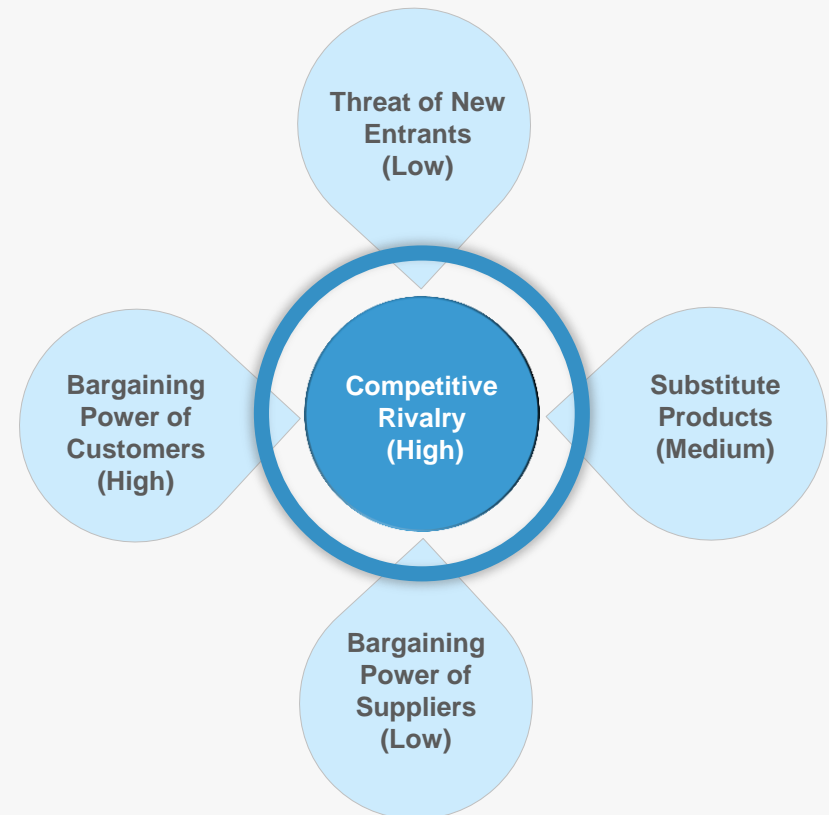
- Threat is low because there is no substitute for electronics
- Threat is present within the industry due to product innovation by peers

Bargaining Power of Suppliers

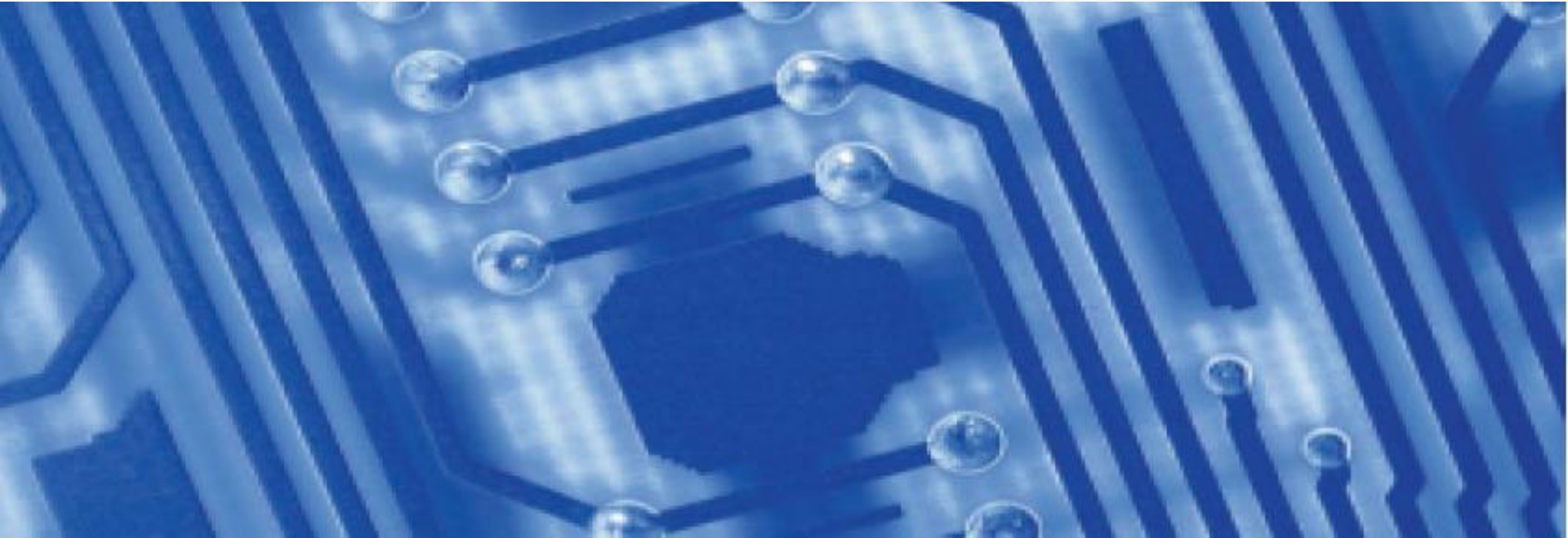
- Low bargaining power of suppliers, as product differentiation is less
- Low switching costs for customers

Bargaining Power of Customers

- High as buyers possess considerable product information these days, which helps in comparison
- Availability of similar options



Source: Aranca Research



STRATEGIES ADOPTED

STRATEGIES ADOPTED

Innovation

- Companies increasingly spending on R&D and stepping up innovation
- Customers frequently change to new-generation products due to low switching costs; thus, companies with newer technologies gain significant market share
- With HD TVs entering the market, TVs working on CRT (Cathode Ray Tube) lost their market share

Diversification

- Most companies are now diversifying into other profitable segments; for example, Samsung is focussing heavily on mobile phone manufacturing, while earlier it focussed more on consumer electronics
- Videocon is also foraying into other segments such as TV Network and mobile phone manufacturing

Marketing strategy

- Most electronics companies, especially consumer electronics, are shifting towards popular ad campaigns to boost their sales
- Most companies in India are embracing aggressive social strategies (e.g., by going online) to target young audience and build brand loyalty among them

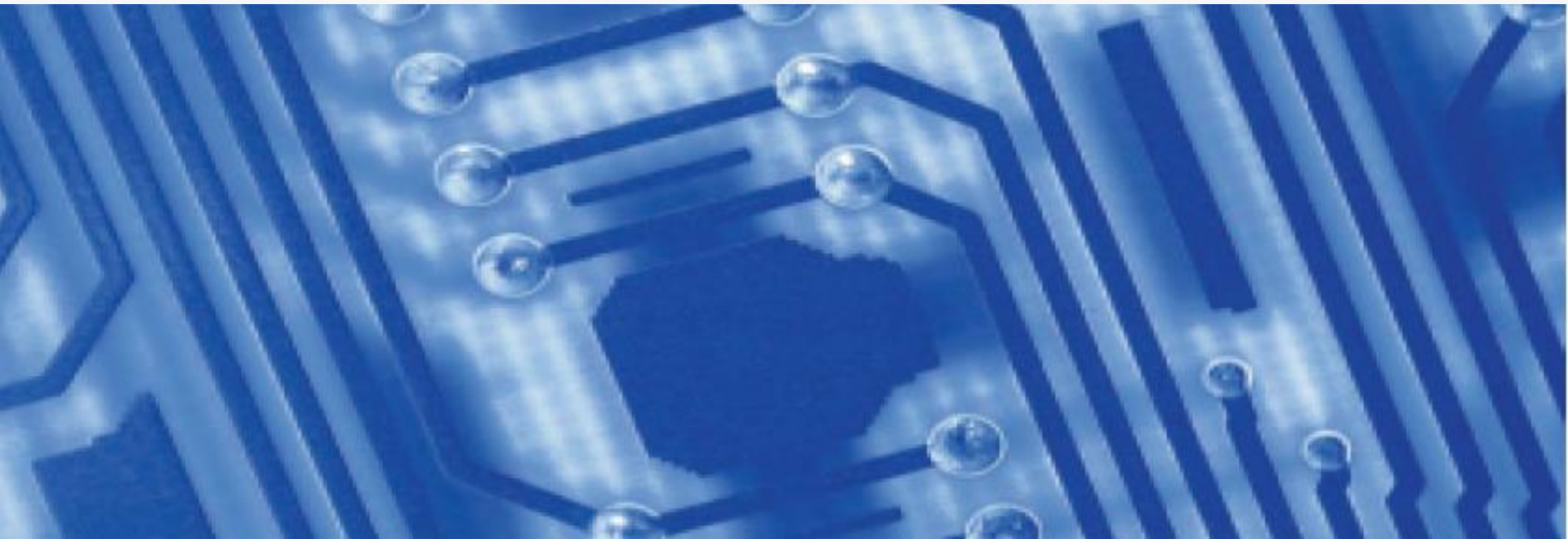
JVs & partnerships

- Most companies are forming strategic alliances and JVs for mutual benefits
- LG and Sun Microsystems are jointly developing Java platforms to enable LG phones and TVs
- LG and Siemens have collaborated to develop standard solutions for air conditioners

Outsourcing of technology

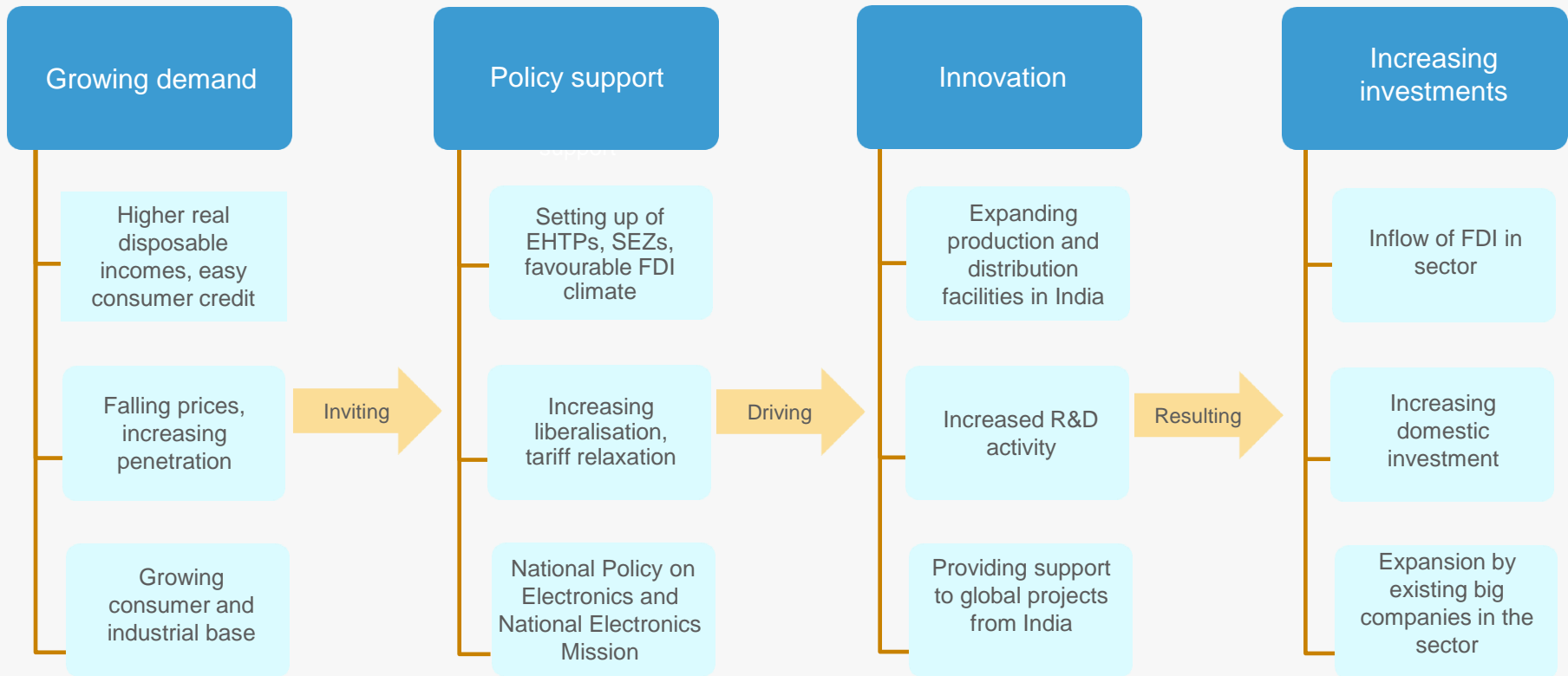
- Manufacturing technologies are exchanged with other countries for better knowledge of innovations
- Being competitive on global platform is key to sustainability and growth for the sector

Source: A report by Corporate Catalyst India (CCI) on 'Electronics Industry in India'; Aranca Research



GROWTH DRIVERS

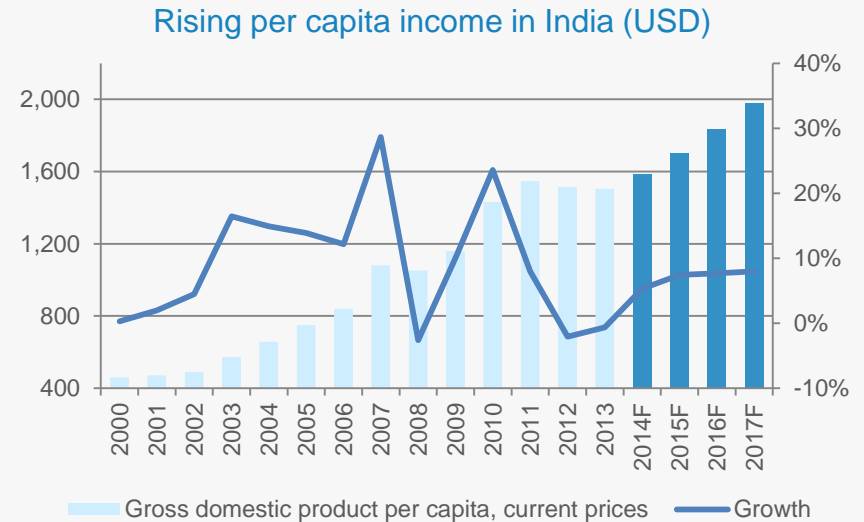
STRONG DEMAND AND POLICY SUPPORT ARE DRIVING INVESTMENTS



Source: Aranca Research
Notes: EHTP – Electronic Hardware Technology Park; SEZ – Special Economic Zone;
FDI – Foreign Direct Investment; R&D – Research and Development

KEY GROWTH DRIVERS ARE RISING INCOMES, CREDIT AVAILABILITY AND GOVERNMENT SPENDING

- * Increase in discretionary income and credit availability has boosted demand for consumer durables
- * The government is one of the biggest consumers of the sector and leads the corporate spend on electronics; this is not surprising given that electronics facilitates e-governance, developmental schemes and initiatives launched by the government
- * Strong demand and favourable investment climate in the sector are attracting investments in R&D as well as manufacturing
- * Increasing demand for defence equipments has boosted the production of electronics goods up to a considerable level



Source: IMF; Aranca Research

Note: F - Forecast

POLICY SUPPORT AIDING GROWTH IN THE SECTOR ... (1/2)

Encouragement to FDI, SEZs

- 100 per cent FDI is permitted in the electronics hardware manufacturing sector under the automatic route
- 100 per cent income tax exemption to SEZ units on export profits for five years, 50 per cent for the next five years
- Government planning to setup dedicated clusters to promote manufacturing of electronic products

Customs duty relaxation

- IT/Electronics sector is the first in India to be allowed complete customs exemption on certain items used for manufacturing electronic goods, in Budget 2014–15; the government increased custom duty on imported electrical goods to boost local manufacturers
- No customs duty on 217 tariff lines covered under the Information Technology Agreement (ITA-1) of the WTO
- Peak rate for basic customs duty is 10 per cent

Reduced central excise

- Mean rate of excise duty (CENVAT) is 8 per cent
- Microprocessors, hard disc drives, CD ROM drives, DVD drives/DVD writers, flash memory sticks, and combo-drives are exempt from excise duty payment and SAD
- Components and accessories of mobile handsets are exempt from excise duty and SAD

Source: Department of Commerce, Government of India;
Department of Electronics and Information Technology; Aranca Research
Notes: FDI – Foreign Direct Investment; SAD – Special Additional Duty of Customs

POLICY SUPPORT AIDING GROWTH IN THE SECTOR ... (2/2)

EPCG, EHTP schemes

- EPCG allows import of electronic capital goods without paying any customs duty
- EHTP provides benefits, such as duty waivers and tax incentives, to companies which replace certain imports with local manufacturing

Intellectual Property Rights

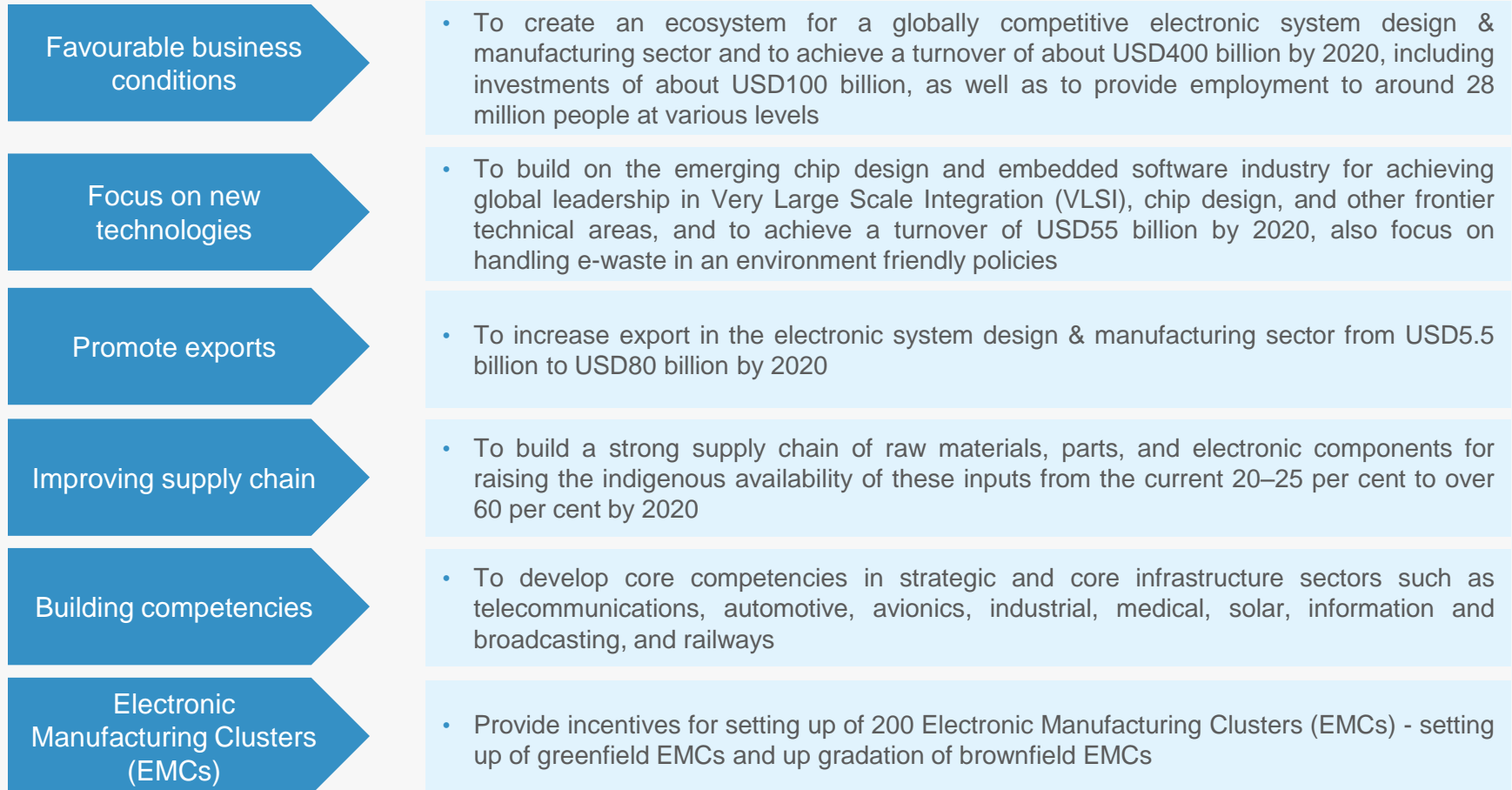
- Intellectual Property Rights (IPR) are a key determinant of progress in R&D and innovation in the electronics sector
- GOI has amended relevant IPR-related acts (like the Copyright Act, Trademark Act, New Designs Act) from time to time to help spruce up innovation and new technologies in the sector

MSIPS

- The Union Cabinet gave its green signal to the Modified Special Incentive Package Scheme (MSIPS) under which the central government will be offering up to USD1.7 billion in benefits to the electronics sector in the upcoming five years

Source: Department of Commerce, Government of India; Department of Information Technology (2010–11 Annual Report); Aranca Research
Notes: EPCG – Export Promotion Capital Goods Scheme; EHTP – Electronic Hardware Technology Park Scheme; IPR – Intellectual Property Rights; GOI – Government of India

NATIONAL ELECTRONICS POLICY 2012 – KEY OBJECTIVES ... (1/2)



Source: Department of Information Technology; Aranca Research

NATIONAL ELECTRONICS POLICY 2012 – KEY OBJECTIVES ... (2/2)



Incentives provided by government to attract investors

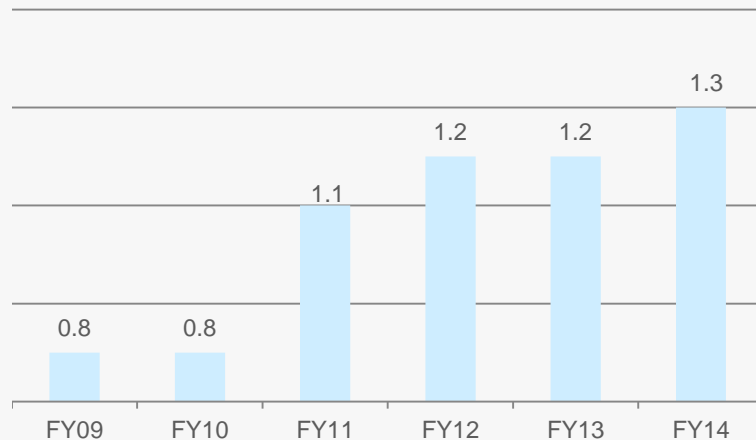
- * To provide subsidy of up to USD10 million per 100 acres of project in electronics manufacturing clusters
- * Reimbursement of excise duties for capital equipment in non-SEZ units
- * No central taxes and duties for 10 years in high-tech facilities such as semiconductor fabricating units
- * Preferential market access to domestically manufactured electronic products
- * Various export incentives such as 2–5 per cent of duty credit on exports of different products
- * Create a completely secure cyber ecosystem in the country
- * Implementation of e-waste (Management and Handling) Rules, 2011
- * Moreover, the government proposed an Electronics Development Fund worth USD2 billion to promote innovation, R&D, product commercialisation, and nano–electronics

Source: Department of Information Technology; Aranca Research

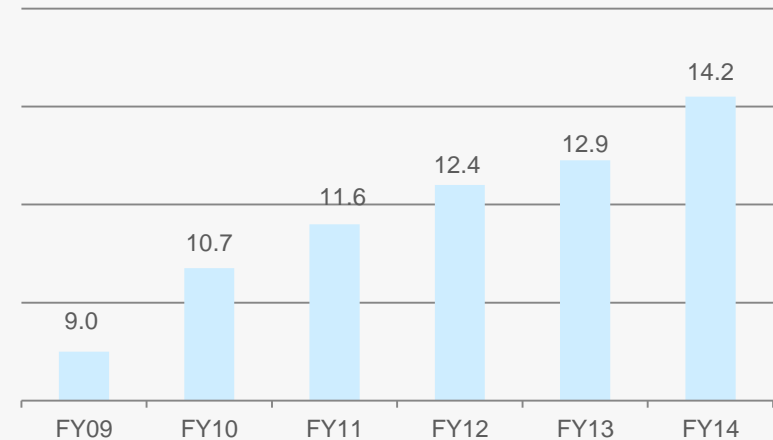
THE ELECTRONICS SECTOR IN INDIA HAS ATTRACTED STRONG FDI INFLOWS

- * Cumulative FDI inflows into the electronics, including computer hardware and software, has increased at a CAGR of 9.5 per cent from USD9.0 billion to USD14.2 billion over March 2009 to March 2014
- * Demand growth, supply advantages, and policy support have been instrumental in attracting FDI

Cumulative FDI inflows to the electronics sector
(USD billion) (FY14)



Cumulative FDI inflows to electronics sector
(combined)** (USD billion) (FY14)



Source: Department of Industrial Policy and Promotion; Aranca Research
Notes: FDI – Foreign Direct Investment; ** – Includes computer software & hardware sector inflows, All figures are from April 2000

THE SECTOR HAS WITNESSED A NUMBER OF KEY M&A DEALS

- * Of the M&A deals in the sector since 2010, Crompton Greave's acquisition of ZIV Group was the highest in terms of value*

Notes: M&A – Mergers and Acquisitions
* Out of the deals whose transaction amount was available

Key Mergers and Acquisitions (M&A)

| Acquirer | Target | Deal date | Deal value (USD million) |
|------------------------------|---------------------------|-------------------------------|--------------------------|
| Shemaroo Entertainment Ltd | Vistaas Digital Media Ltd | 30 th October 2010 | 5.1 |
| Emerson Electric Co | Fisher Sanmar Ltd | 31 st March 2011 | 135.0 |
| Schneider Elec India Pvt Ltd | Smartlink Network Systems | 13 th May 2011 | 113.0 |
| Mitsubishi Electric Corp | Messung Group | 23 rd Jan 2012 | NA |
| Crompton Greaves Ltd | ZIV Group | 27 th July 2012 | 192.0 |
| Toshiba Mitsubishi-Electric | AEG Power Solutions India | 28 th April 2014 | 12.4 |
| MSR Telecom Pvt Ltd | Bloom Mobiles Pvt Ltd | 19 th May 2014 | NA |

Source: Thomson One Banker; Grant Thornton; CMIE Business Beacon; Aranca Research
Note: NA is Not Available

RECENT INVESTMENTS BY KEY PLAYERS

2010

- May 10: LG earmarks around USD85.0 million for upgrading Indian plants
- Sep 10: Haier invests to open 75 new retail stores (called Experience Centres) in India in 2010
- Nov 10: Samsung inaugurates USD75.0 million manufacturing facility in Chennai

2011

- Jan 11: SunEdison allocates USD100.0 million for installation of 30MW solar capacity in 2011
- Feb 11: Whirlpool announces USD25.0 million investment in FY11
- Apr 11: Hitachi allocates USD400.0 million to set up R&D centre in Bangalore
- Jun 11: BHEL and BEL consortium allocates USD416.7 million to set up a solar photovoltaic modules production unit

2012

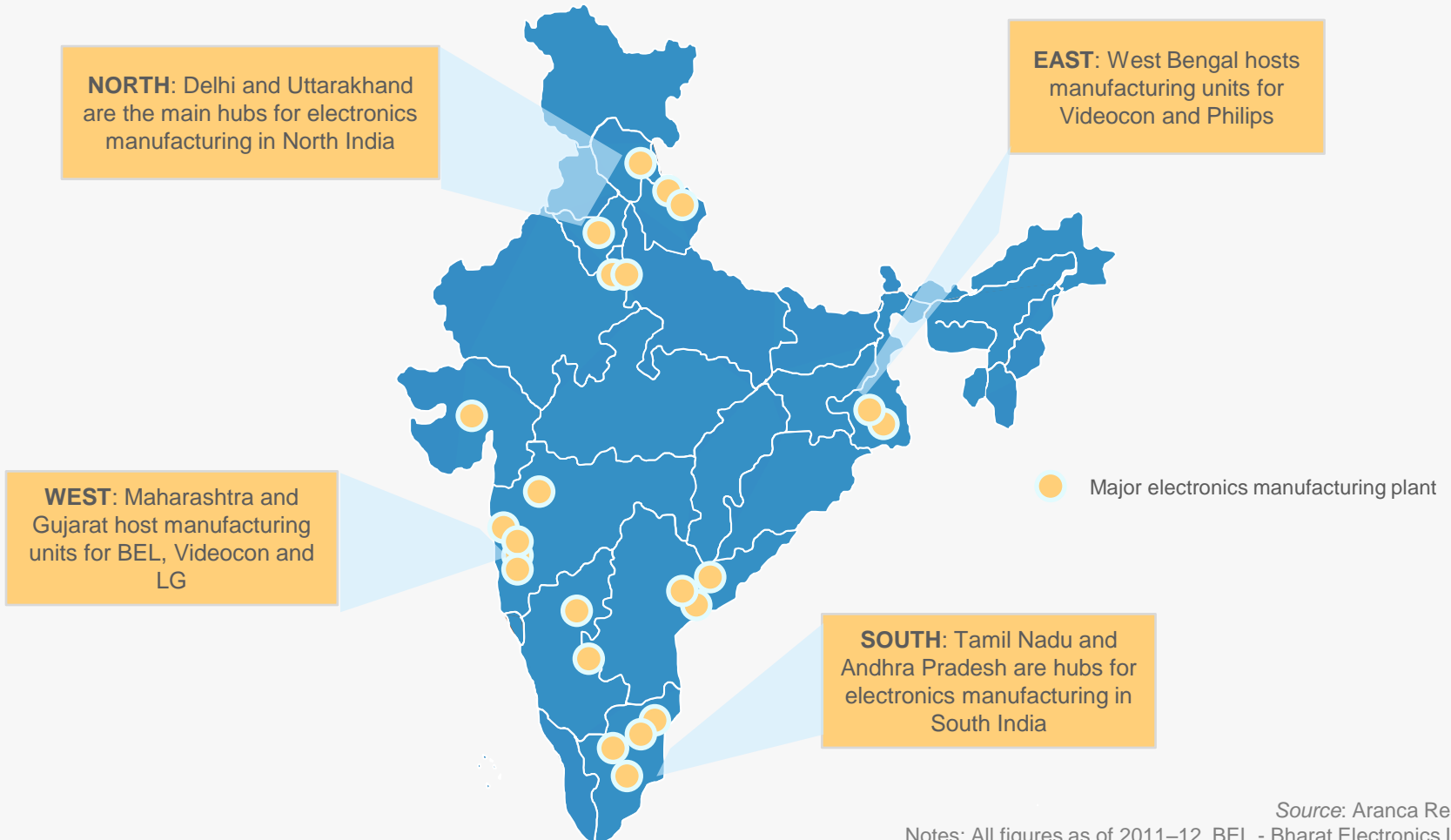
- May 05: LG Electronics launches latest series of Cinema 3D Smart TVs with marketing spend of USD20.8 million
- Jan 17: Samsung to raise its investments to USD41.4 billion for consolidation in its position in mobile chips and flat screens
- Videocon plans to invest around USD12.5 million in Research and Development during FY13
- Oct 31: Sony to invest USD100 million in expansion and marketing

2013–14

- Mar 13: Reliance and Videocon are in talks to invest USD5.2 billion to set up a chip manufacturing plant
- Jul 13: Panasonic plans to invest USD250 million over the next three years to launch a range of smart phones in India
- Sep 13: Mitsubishi Electric plans to invest about USD55 million in India by 2016 for setting up manufacturing elevators and making air conditioning equipment
- Apr 14: Toshiba Mitsubishi Electric acquired complete share capital of AEG Power Solutions

Source: India Electronic News; Assorted News articles; Aranca Research
Note: R&D – Research and Development

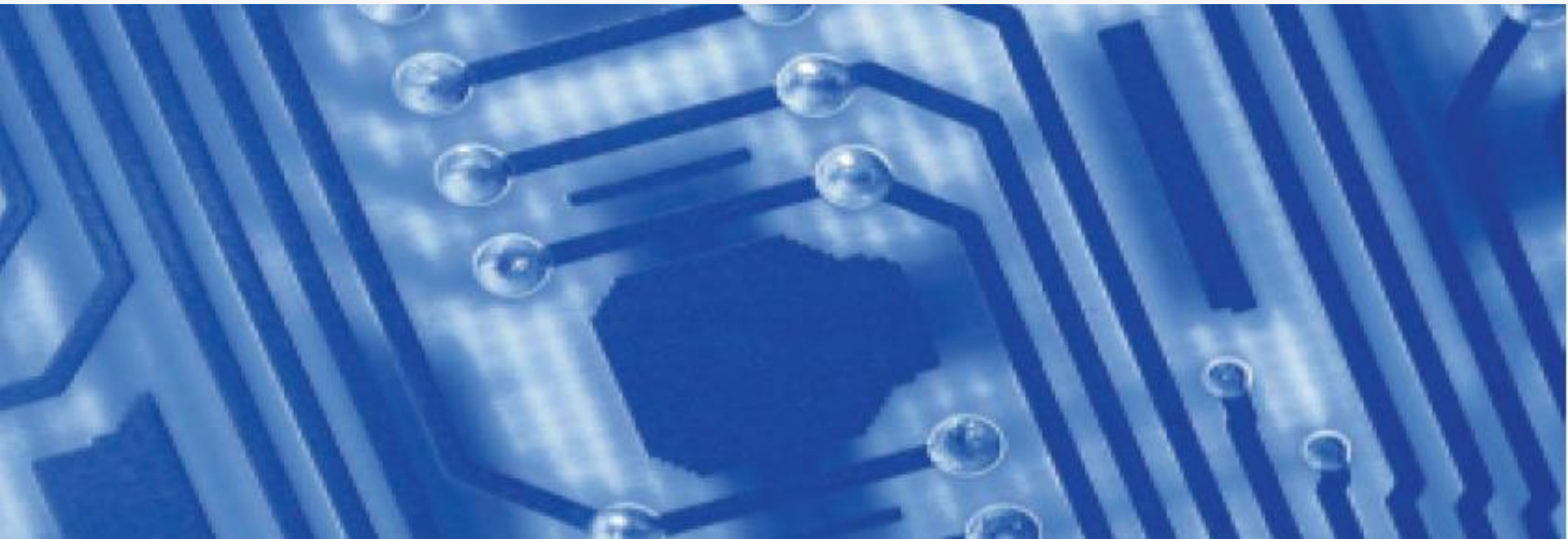
KEY ELECTRONIC GOODS MANUFACTURING PLANTS ACROSS INDIA



Source: Aranca Research

Notes: All figures as of 2011-12, BEL - Bharat Electronics Limited

ELECTRONICS



OPPORTUNITIES

MARCH 2015

MULTIPLE FACTORS FAVOUR INVESTMENT IN ELECTRONICS

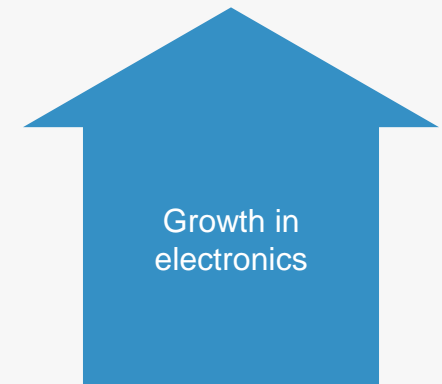
Growing customer base: Market for electronics is expected to expand at a CAGR of 24.4 per cent during 2012–20. The demand for electronics hardware in India is projected to increase from an estimated USD69.6 billion in 2012 to USD125 billion by 2014 and USD400 billion by 2020

Incentives and concessions under schemes: Export Oriented Unit (EOU) Scheme, Electronics Hardware Technology Park (EHTP) Scheme, Software Technology Park (STP) Scheme and EOU/EHTP/STP Schemes

Targeted reduction in import bill: Domestic electronic production accounts for around 45.0 per cent of the total market demand. Therefore, in order to reduce the import bill, the government plans to boost the domestic manufacturing capabilities and is considering a proposal to give preference to Indian electronic products in its purchases

Increasing penetration in the consumer durables segment: Consumer durables market in India is characterised by low penetration in various product segments, viz. 1.0 per cent in microwaves, 3.0 per cent in ACs, 16.0 per cent in washing machines, 18.0 per cent in refrigerators, etc. Higher disposable incomes are leading to realisation of penetration potential in various product segments, especially in rural areas

Policy and investment support: To compliment the targeted reduction in import bill, the government has proposed a minimum investment of USD555.0 million for semiconductor manufacturing plants and USD222.0 million for ecosystem units. This is considered a major step toward attracting foreign companies to set up manufacturing facilities in India. In Budget 2014, a 10 per cent exemption was made on customs duty on parts used in the manufacture of small electronic products



Source: Department of Information Technology; FY10, FY11 Annual Reports; A Report by Corporate Catalyst India (CCI) on 'Electronics Industry in India'; Dataquest India; Aranca Research

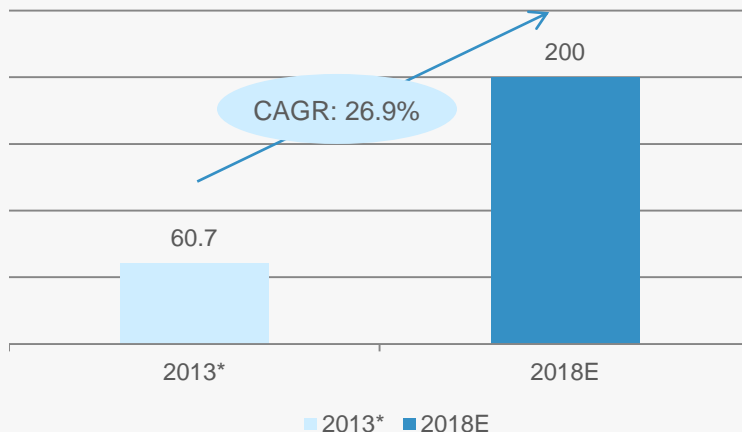
ERA OF DIGITISATION OPENS NEW OPPORTUNITIES ... (1/2)

Households with TVs in India

- 277 million televisions[#]
- 145 million cable TV homes[#]
- 831 channels with 184 pay channels[#]

- 191 million televisions in 2017
- 200 million DTH subscribers by 2018

DTH subscribers (million units)



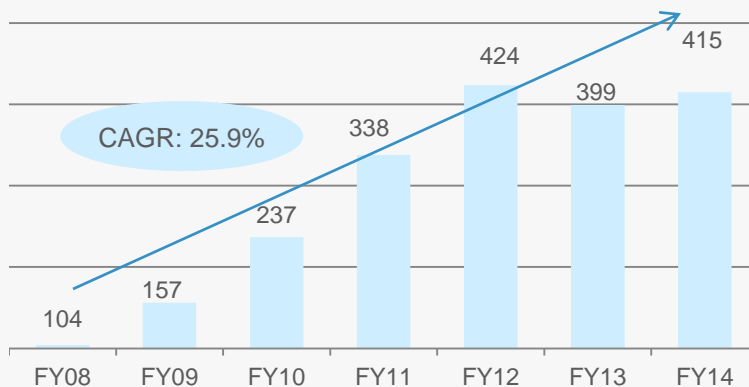
- * The government announced the digitisation of cable television in India in four phases, which would be completed by the end of 2014
- * Digitisation will lead to complete switchover from analogue cable to Digital Addressable Systems in a phased manner
- * The number of DTH subscribers in India is expected to increase from 60.7 million in 2013* to 200 million by 2018

Source: Department of Information Technology; KPMG; Aranca Research, TRAI
Notes: * Data as on September 2013,
Data as on December 2014

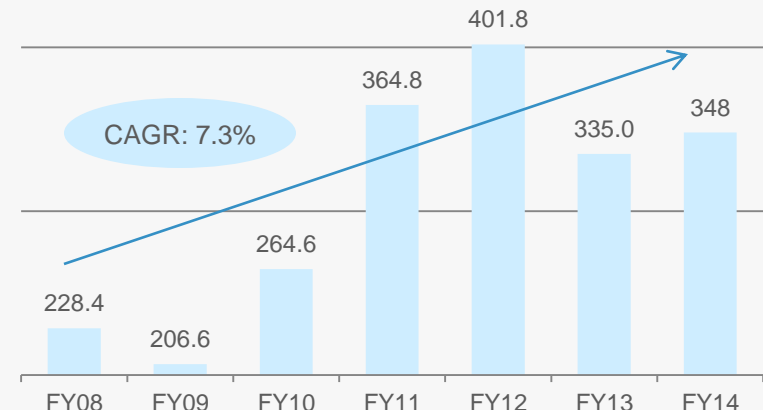
ERA OF DIGITISATION OPENS NEW OPPORTUNITIES ... (2/2)

- * The digitisation of cable television has led to increased demand for set-top boxes, dish, cables, and other electronic component; this has resulted in many opportunities for local and foreign players to enter the market
- * Digitisation will lead to increased broadband penetration in India and open up new avenues for companies offering value-added services such as online gaming, HD television Internet, music, and radio

Dish TV revenues (USD million)

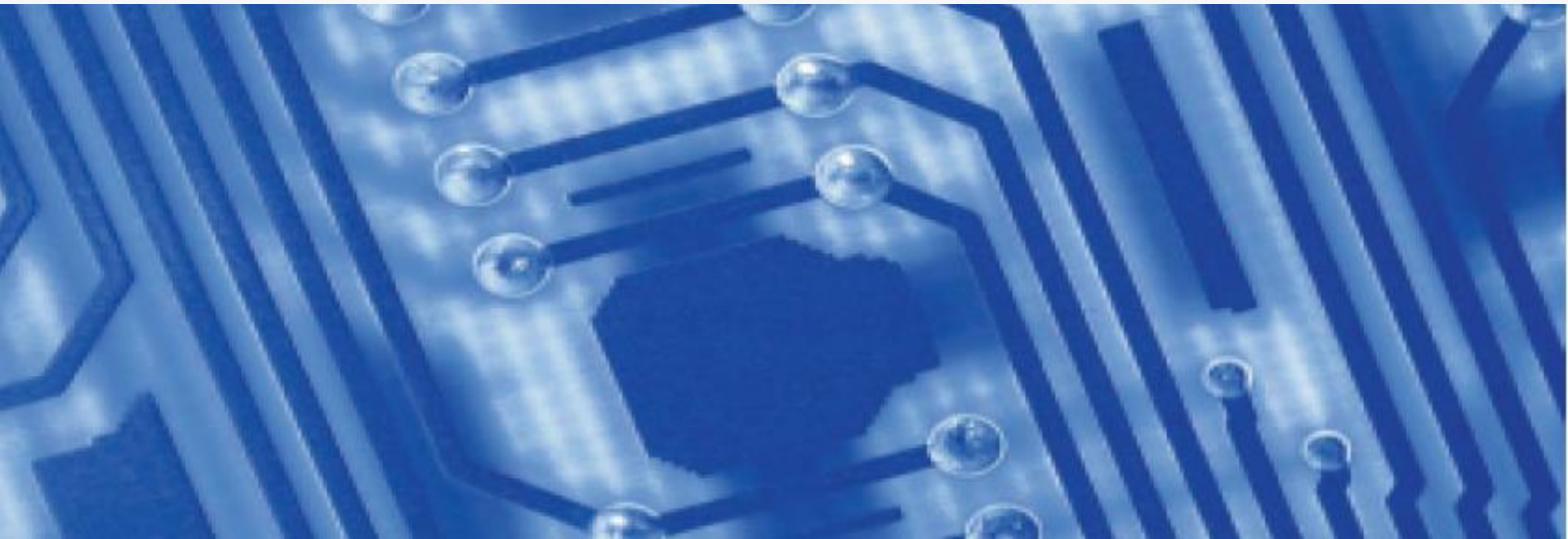


Sun TV revenues (USD million)



Source: Department of Information Technology; KPMG; Aranca Research

ELECTRONICS



SUCCESS STORIES

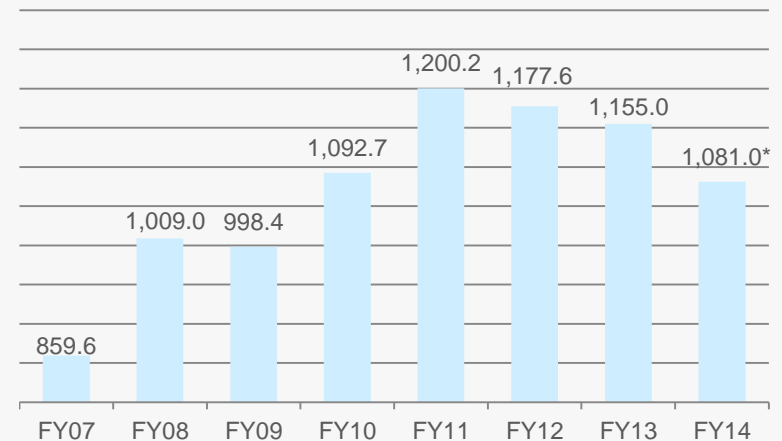
MARCH 2015

BHARAT ELECTRONICS (BEL): A PUBLIC SECTOR ICON ... (1/2)

Salient features

- An Indian state-owned aerospace and defence company
- Established in 1954 under the Ministry of Defence to meet specialised electronic needs of the Indian defence services
- The company has a strong commitment to quality and innovation, with two dedicated central research laboratories
- During FY13, R&D expenditure was 8.8 per cent of total turnover
- The company has nine manufacturing units; each unit has its own Development and Engineering (D&E) division
- Joint Venture with General Electric Medical System and Multitone, UK

Revenues (USD million)



Source: BEL website; Annual Reports; Business Standard; Aranca Research

Note: * - Fallen due to negative translation effect

BHARAT ELECTRONICS (BEL): A PUBLIC SECTOR ICON ... (2/2)

Key success factors

- Focus on innovation and R&D
- Key technological collaborations with leading European, American and Israeli companies
- Rising defence spending in India
- Governmental emphasis on indigenisation and reduction of import bill
- Diversification in the civilian and export market

Financial highlights

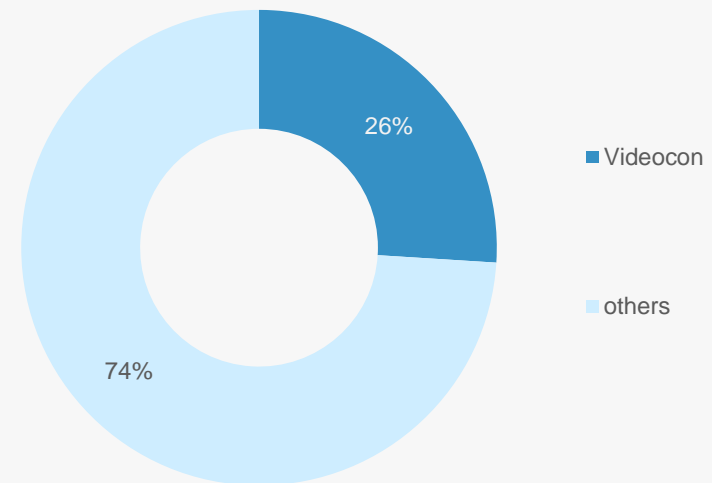
- As of 1 April 2014, BEL's order book was around USD3.8 billion
- During FY07–14, BEL's revenue rose at a CAGR of 3.4 per cent (from USD859.6 million) to USD1.08 billion
- During the same period, BEL's net profits increased at a CAGR of 11.4 per cent (from USD74.1 million) to USD157.8 million

Source: BEL website; Annual Reports; Aranca Research

VIDEOCON: A PRIVATE SECTOR GIANT ... (1/3)

- * Third largest consumer durables company in India and one of the largest Colour Picture Tube (CPT) manufacturers globally
- * 17 manufacturing sites in India and plants in Mainland China, Poland, Italy and Mexico
- * Holds about one-fourth market share in the consumer durables market
- * Leads the market in colour TV, refrigerator, washing machine, and microwave oven segments
- * Acquired Colour Picture Tube (CPT) businesses from Thomson S.A through a wholly owned offshore subsidiary. The company has manufacturing facilities in Poland, Italy, Mexico and China along with support research and development facilities

Market share in consumer durables (FY12)



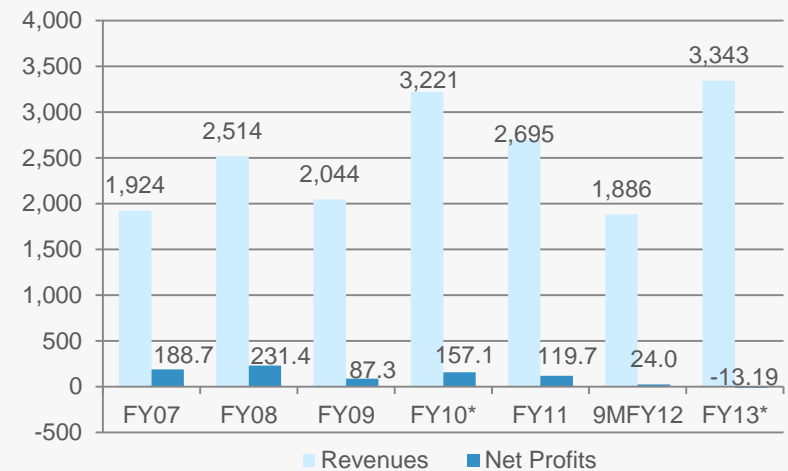
Source: Company website; ISM Capital; Aranca Research

VIDEOCON: A PRIVATE SECTOR GIANT ... (2/3)

- * During FY07–13, Videocon’s revenues increased at a CAGR of 9.6 per cent
- * During the 18 months ended June 13, the company's revenues reached USD3,343.26 million
- * The group is a US\$5 billion global conglomerate

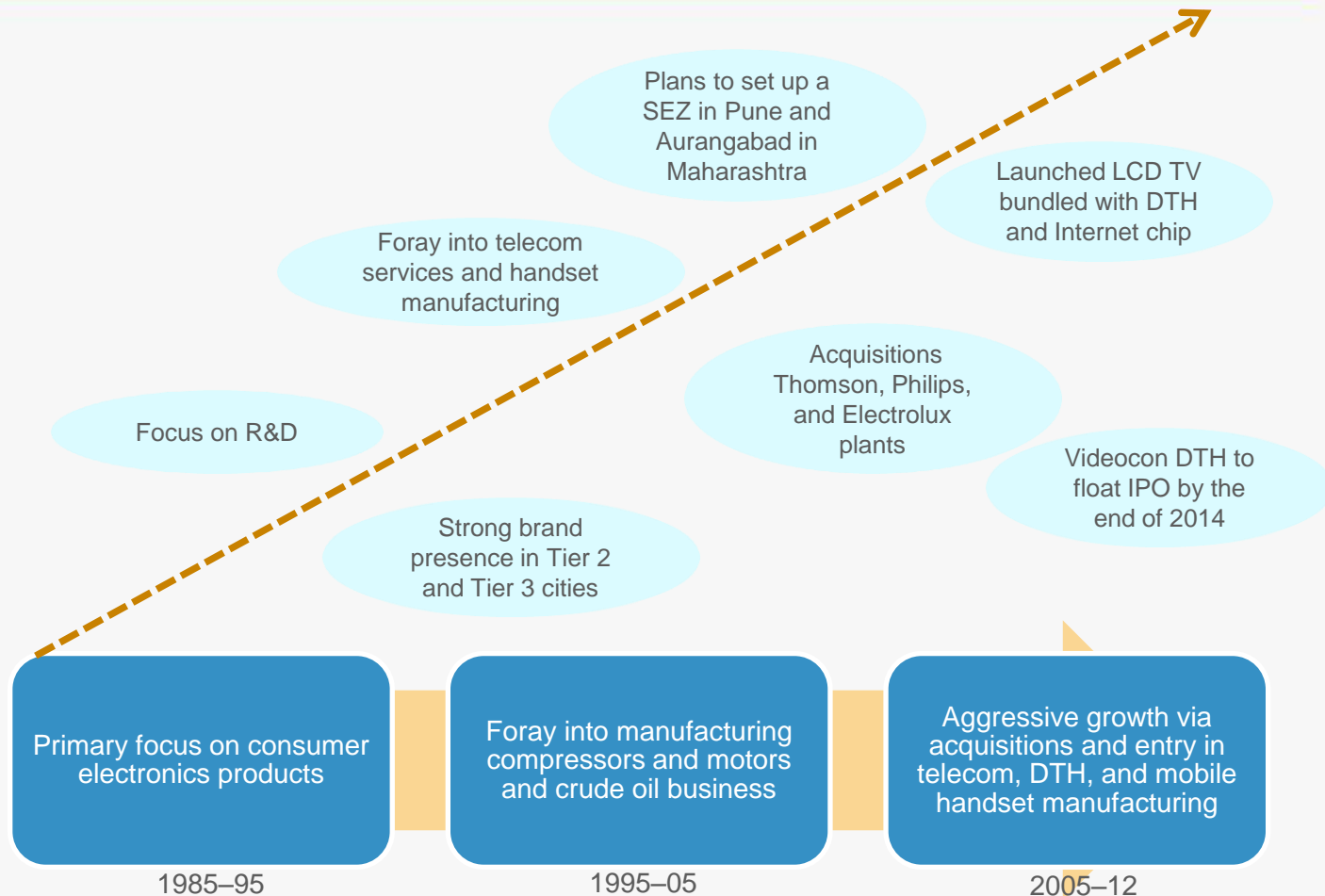
Notes: FY – Financial Year; CAGR – Compound Annual Growth Rate, During 2007–09, the financial year was October–September; however, from 2010, the financial year was changed to January–December, In 2013 the company changed its financial year end to June

Top line and bottom line trends (USD million)



Source: Company website; ISM Capital; Aranca Research
Notes: * FY10 – Data for 15 months;
9MFY12 – Data for first 9 months of financial year 2012,
FY13* Data for 18 months (Jan 2012 to June 2013)

VIDEOCON: A PRIVATE SECTOR GIANT ... (3/3)

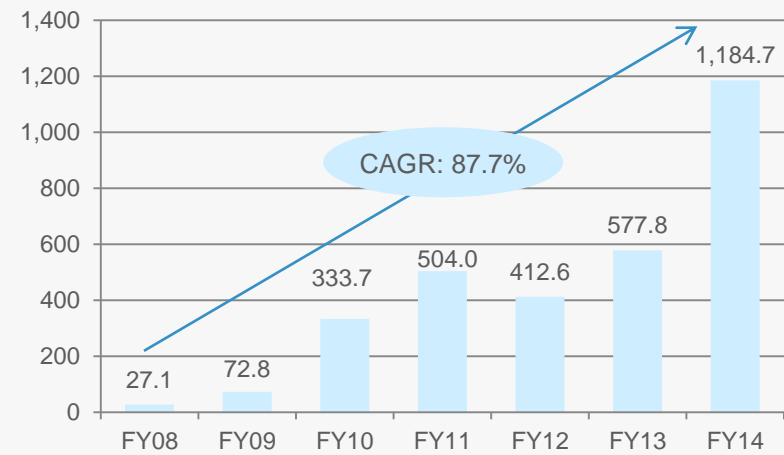


Source: Videocon website; Aranca Research
Note: DTH – Direct to Home

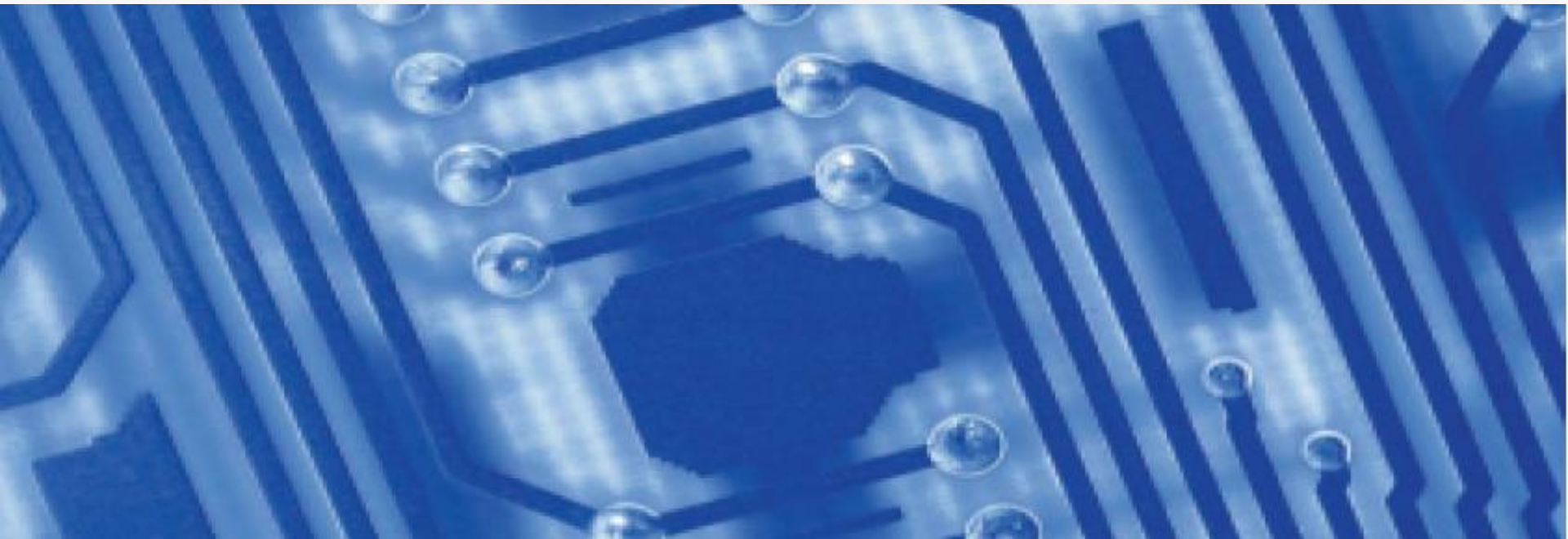
THE MICROMAX STORY

- * Micromax started out as an IT software company in 2000
- * Micromax began manufacturing mobile phones in 2010; besides sourcing from China, and became one of the largest Indian domestic mobile handsets company operating in low cost feature phone segments by 2010
- * Micromax had a 9.7 per cent market share in Indian tablet market during Q2 2013 and is ranked second in smart phones market with 24.3 per cent share
- * With presence across 14 countries, the company manufactures mobile handsets, tablets, and LED televisions
- * During FY08–13, Micromax's revenues increased at a CAGR of 84.4 per cent to USD577.8 million in FY13
- * The company's share in the mobile handset market in India increased from 5 per cent in 2011 to 8.7 per cent in 2013
- * Micromax targets a revenue of USD1 billion in FY14
- * In November 2014, Micromax partnered with Cyanogen Inc to provide Cyanogen-based smartphones in India, under the brand name Yu

Revenues (USD million)



Source: Micromax website; Memorandum; News articles; Aranca Research



USEFUL INFORMATION

INDUSTRY ASSOCIATIONS ... (1/2)

Electronics Industries Association of India (ELCINA)

ELCINA House, 422 Okhla Industrial Estate,
New Delhi – 110 020, India
Phone: 91 11 26924597,26928053
Fax: 91 11 26923440
E-mail: elcina@vsnl.com
Website: www.elcina.com/

Telecom Equipment Manufacturers Association (TEMA)

4th Floor, PHD House, Opp. Asian Village,
New Delhi – 110 016, India
Tel: 91 11 26859621
Fax: 91 11 26859620
E-mail: tema@del2.vsnl.net.in
Website: <http://www.tfci.com/cni/tema.htm>

INDUSTRY ASSOCIATIONS ... (2/2)

Manufacturers Association for Information Technology (MAIT)

4th Floor, PHD House, Opp. Asian Games Village,
New Delhi 110 016, India
Tel: 91 11 26855487
Fax: 91 11 26851321
E-mail: contact@mait.com
Website: www.mait.com

Consumer Electronics and Appliances Manufacturers Association (CEAMA)

5th Floor, PHD House
4/2, Siri Institutional Area, August Kranti Marg
New Delhi-110 016
Telefax: 91- 11- 46070335, 46070336
e-mail: ceama@airtelmail.in
Website: www.ceama.in

- * **C&B:** Communication and Broadcasting
- * **CAGR:** Compound Annual Growth Rate
- * **Capex:** Capital Expenditure
- * **CENVAT:** Central Value Added Tax
- * **EHTP:** Electronic Hardware Technology Park
- * **EPCG:** Export Promotion Capital Goods Scheme
- * **FDI:** Foreign Direct Investment
- * **FY:** Indian Financial Year (April – March); for example FY10 means April 2009 – March 2010
- * **PLC:** Programmable Logic Controller
- * **R&D:** Research and Development
- * **SCADA:** Supervisory Control and Data Acquisition
- * **USD:** US Dollar
- * Wherever applicable, numbers have been rounded off to the nearest whole number

EXCHANGE RATES

Exchange rates (Fiscal Year)

| Year | INR equivalent of one USD |
|---------|---------------------------|
| 2004-05 | 44.81 |
| 2005-06 | 44.14 |
| 2006-07 | 45.14 |
| 2007-08 | 40.27 |
| 2008-09 | 46.14 |
| 2009-10 | 47.42 |
| 2010-11 | 45.62 |
| 2011-12 | 46.88 |
| 2012-13 | 54.31 |
| 2013-14 | 60.28 |

Exchange rates (Calendar Year)

| Year | INR equivalent of one USD |
|--------|---------------------------|
| 2005 | 43.98 |
| 2006 | 45.18 |
| 2007 | 41.34 |
| 2008 | 43.62 |
| 2009 | 48.42 |
| 2010 | 45.72 |
| 2011 | 46.85 |
| 2012 | 53.46 |
| 2013 | 58.44 |
| Q12014 | 61.58 |
| Q22014 | 59.74 |
| Q32014 | 60.53 |

Average for the year

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