ITI Limited

INVESTOR PRESENTATION

Disclaimer

ITI Limited is proposing, subject to receipt of requisite approvals, market conditions and other considerations, to make a further public offer of its equity shares and has filed a draft red herring prospectus dated September 27, 2018 ("DRHP") with the Securities and Exchange Board of India ("SEBI"). The DRHP is available on the website of the SEBI at www.sebi.gov.in websites of the stock exchanges, BSE Limited and National Stock Exchange of India Limited at www.bseindia.com and www.nseindia.com, respectively, and on the websites of the lead managers, BOB Capital Markets Limited, Karvy Investor Services Limited and PNB Investment Services Limited at www.bobcaps.in, www.karvyinvestmentbanking.com and www.pnbisl.com, respectively. Potential investors should note that investment in equity shares involves a high degree of risk and for details relating to such risk, see "Risk Factors" on page 12 of the DRHP. Potential investors should not rely on the DRHP for any investment decision, and such investment decision should be made solely based on the Red Herring Prospectus once available.

The Equity Shares have not been and will not be registered under the U.S. Securities Act of 1933 ("U.S. Securities Act"), and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act and applicable U.S. state securities laws. Accordingly, the Equity Shares have been offered and sold (i) within the United States only to qualified institutional buyers (as defined in Rule 144A under the U.S. Securities Act, "Rule 144A") and referred to in the DRHP as "U.S. QIBs", for the avoidance of doubt, the term "U.S. QIBs" does not refer to a category of institutional investor defined under applicable Indian regulations and referred to in the DRHP as — QIBs in reliance on Rule 144 A or another available exemption from the registration requirements of the U.S. Securities Act and (ii) outside the United States in offshore transactions in compliance with Regulation S under the U.S. Securities Act and pursuant to the applicable laws of the jurisdiction where these offers and sales occur. Prospective purchasers are hereby notified that the seller of the Equity Shares may be relying on the exemption from the registration requirements of the U.S. Securities Act provided by Rule 144A. The Equity Shares have not been and will not be registered, listed or otherwise qualified in any other jurisdiction outside India and may not be offered or sold, and Bids may not be made by persons in any such jurisdiction except in compliance with the applicable laws or such jurisdiction

Presentation Path

Brief Overview of ITI Ltd

Key Business Highlights

Business Strategies

Annexures

Brief Overview of ITI Ltd

Business Overview

- *ITI Ltd is a PSU under Dept. of Telecommunications (DoT) offering diverse suite of products & services across various industry segments*

- *ITI has 5 facilities with modern manufacturing infrastructure located at Bengaluru, Mankapur, Naini, Palakkad & Raebareli and a R&D centre in Bengaluru*

- *Engaged in projects of national importance such as ASCON, BharatNet, Network for Spectrum, Smart Energy Meters, Space Programs and various E-governance projects*

- *Strong relations with various PSUs such as BSNL, BBNL, MTNL, EESL; Ministry of Defence (MoD), Ministry of Rural Development (MoRD), Registrar General & Census Commissioner of India, among others*

- *Strong order book comprising of a diversified products and services. As on Aug 31, 2018 the order book was valued at Rs12,111.7crs*

- *Skilled workforce comprising of 3,427 employees, including more than 710 employees with technical and professional qualifications as of Aug 31, 2018*

Ownership Structure

Governor of Karnataka 0.03%
Public 10%
President of India 89.97%
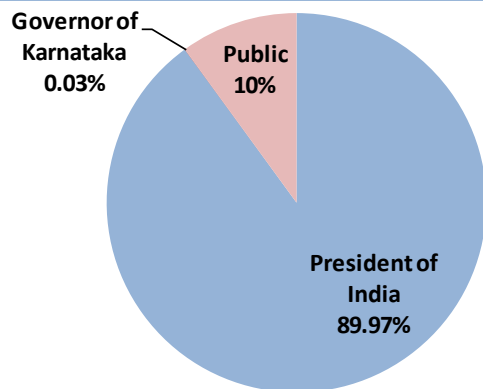
*Public includes SNIF

Summary Consolidated (IND AS) Financials (INR Crs)

Particulars	FY15	FY16	FY17	FY18
Revenue from Ops	579.1	1,193.3	1,548.1	1,484.2
Other Income	84.9	597.0	540.6	327.5
PAT	(299.8)	252.6	302.9	232.0
Net worth	(1,910.5)	(1,637.1)	(1,248.6)	(674.0)
Net Debt	1,220.8	1,138.9	1,179.2	1,226.3

Key Products & Services

- *Giga Passive Optical Network (GPON)*
- *Managed Leased Line Products (MLLN)*
- *Multi-capacity Encryption Units & Electrical Products*
- *Internet of Things (IoT)*
- *O&M for Base Transceiver Station (BTS)*
- *Data Centre Hosting Solutions*
- *Annual Maintenance Services*
- *IT & software services such as –*
  - *Digital Wallet Solutions*
  - *Aadhar Authentication Services*
  - *Cable & Fibre Laying Services*
  - *Citizen Centric Services*

- **1948** → GoI establishes a departmental factory that later became ITI Ltd

- **1950** → ITI was incorporated as a private limited company on January 25, 1950.

- **2000** → Turnkey project for 100,000 lines of GSM cellular mobile equipment for MTNL, Mumbai

- **2001** → Supply of MLLN equipment and supply of goods for wireless local loop (WLL) system for rural application to BSNL

- **2002** → Turnkey project for GSM cellular mobile equipment for BSNL, Gujarat telecom circle

- **2004** →
  - 5 year technical collaboration agreement with Tejas Networks India Ltd for assembly & manufacture of next-gen SDH (Synchronous Digital Hierarchy) products for BSNL & MTNL
  - Collaboration agreement with Giesecke & Devrient (India) Pvt Ltd for manufacturing SIM cards.
  - Commenced project for supply of STM-1 SDH equipment for BSNL

- **2005** →
  - Commenced turnkey project for BSNL for standalone signalling transfer points and associated equipment
  - Turnkey project in 11 districts of Afghanistan – 35,000 subscriber lines of CDMA WLL system
  - Declared as 'sick' under section 3(1)(o) of the Sick Industrial Companies Act, 1985 following erosion of more than 50% of net worth

- **2006** → Commenced project for supply of 32 channel dense wavelength division multiplexing (DWDM) for BSNL

- **2007** → Commenced project for supply of digital circuit multiplex equipment (DCME) for BSNL

- **2008** →
  - Commenced projects for supply of GSM SIM cards for BSNL and MTNL
  - Commenced project for supply of STM-16 MADMs equipment for BSNL

- **2009** →
  - Commenced projects for supply of STM-64 equipment, STM-16 ADMs equipment, ADSL2PLUS type II CPEs for broadband, GPON equipment, GSM products and radio modem equipment to BSNL
  - Set up data centre in the Bengaluru Plant in association with Trimax Data Centre Services Limited

- **2010** →
  - Appointed for undertaking the National Population Register project by the Ministry of Home Affairs, GoI
  - Appointed as the IT implementation agency by Tamil Nadu Electricity Board for implementation of IT infrastructure in 110 towns of Tamil Nadu
  - Turnkey project for supply of active GPON equipment for MTNL Delhi and Mumbai

2011 → Commenced solar project in various districts in Uttar Pradesh for the UP police

2012 → Project for solar voltaic power systems for BTS sites for BSNL

2013 → MoU with TSSC for special focus on skill development in the telecom industry

2014 →
- Commenced execution of a project for 1.2 million NGN access equipment for BSNL
- Undertook the project for setting up intelligent fibre optic cable network for defence forces for BSNL
- CCEA approved the Revival Plan

2016 →
- Commenced a turnkey project for implementation of a network management system for BSNL broadband network
- Commenced the turnkey project for GPON products and solar power equipment for Bharat Broadband Network Limited

2017 →
Received orders for →
- Deploying of 15 MW solar power project for the Solar Energy Corporation of India Limited
- Supply of three models of mini personal computers to Mahatma Gandhi University, Kottayam
- Manufacture and supply of 2.5 million smart meters for Energy Efficiency Services Limited
- Manufacture and supply of permanently lubricated HDPE from BSNL
- Supply of CDOT ANRAX control cards to BSNL
- Providing full screening and re-screening services of Analog Ics from ISRO

2018 →
- The Palakkad Plant received a certificate of compliance from the RuPay Compliance Program Board for adhering to the RuPay card quality and security standards Undertook a turnkey project for broadband network gateway for BSNL
- Received an advance purchase order for procurement of multi capacity encryption units (MCEU) for defence networks for BSNL
- Executed a transfer of technology agreement with Centre for Development of Telematics for manufacture of terabit router
- Executed a MoU with C DOT and MTNL to, inter alia, address the smart city project
- Executed a MoU with Tamil Nadu Telecomunications Limited to execute optical fibrecable business
- Received an order for supply of mini PCs to the University of Calicut

Key Business Highlights

Defence Communication & Security Encryption Products & Services	Optical and Data Network Products and Services and Passive Infrastructure Products	IT Products and Services	Internet of Things (IoT)
Communication network projects for India's defence forces	*End to end portfolio of optical & data networking products*	*Hosting services along with a suite of IT & software services*	*State of the art infrastructure to manufacture IoT Products*

Defence Communication & Security Encryption Products & Services

- **Communication Projects**
- Designed, manufactured, installed & maintained all three phases of ASCON for the Indian Army
- In negotiations with the MoD for ASCON Phase IV project- the project is valued at Rs7,700crs
- Order for laying optical fiber cable under the NFS project for the Indian defence forces in the Eastern and North- Eastern region
- **Defence Security Encryption**
- BEU encryptors to encrypt and decrypt Internet Protocol (IP) data (developed 3 types);
- PCM encryptors to encrypt and decrypt various types of data in PCM format.

Optical and Data Network Products and Services and Passive Infrastructure Products

- **Broadband Products & Services**
- Turnkey solutions for supply, installation, commissioning, O&M of GPON & associated equipment
- Raebareli Unit → Introduced machines for GPON equipment viz. 3D automatic optical, X-ray & solder paste inspection
- Bengaluru Unit → Upgraded to manufacture GPON equipment, also provide testing services for GPON cards & equipment
- GPON OLT units & ONTs →Phase I of "Bharat Net"
- **Passive infrastructure products**
- Optical network, data & voice traffic equipment- HDPE pipes & OFC
- **MLLN Products and Services**
- MLLN products & services, including turnkey solutions for supply, installation, O&M of network equipment to BSNL & MTNL

IT Products and Services

- **Data Centre**
- Tier 3 data centre in Bengaluru set up in collaboration with Trimax Data Centre Services
- Hosting & managed services to GoI organizations & private companies → currently has 96% occupancy
- Expanding data centre operations by building a Tier 3 plus data centre with 1,000 rack space; also ITI plans to expand its offering to include end-to-end hosting & managed services
- **Software as a service (SaaS)**
- Suite of SaaS for financial & banking solutions - Aadhaar authentication & digital wallet services
- **IT Support Services**
- ITI's SaaS packages are backed by active customer support services

Internet of Things (IoT)

ITI partners up with various technology companies & start ups to offer various IoT products & solutions. In particular ITI focuses its efforts on products including smart metering, smart health, smart environment, smart surveillance, smart e-governance etc

Annual Maintenance Contracts (AMC) and Operation & Maintenance Contracts (O&M)

AMCs for telecommunications and defence networks.

- AMC for first three phases of ASCON for MoD
- AMCs with BSNL & MTNL for maintaining OCB exchanges
- O&M for GSM network of BSNL in Tamil Nadu, Uttar Pradesh & Uttarkhand for the next ten years

Ability to offer diversified products and services to a broad base of customers across various industry segments

Diversified suite of manufactured and traded products

Electronic Products Manufactured at ITI

- Smart energy meters
- GPON OLT & ONT
- PCM multiplexers
- Electronic push button telephones
- Ruggedized telephones for defence forces
- Smart cards & banking cards
- Hand held terminals for smart card authentication
- Set top boxes
- Wi-Fi equipment
- Multiple types of encryption devices for defence
- PCM multiplexers
- Solar power modules
- Switched mode power supply module
- IoT products
- Radio modems
- AN rack hardware
- Mini personal computer
- Bank automation products

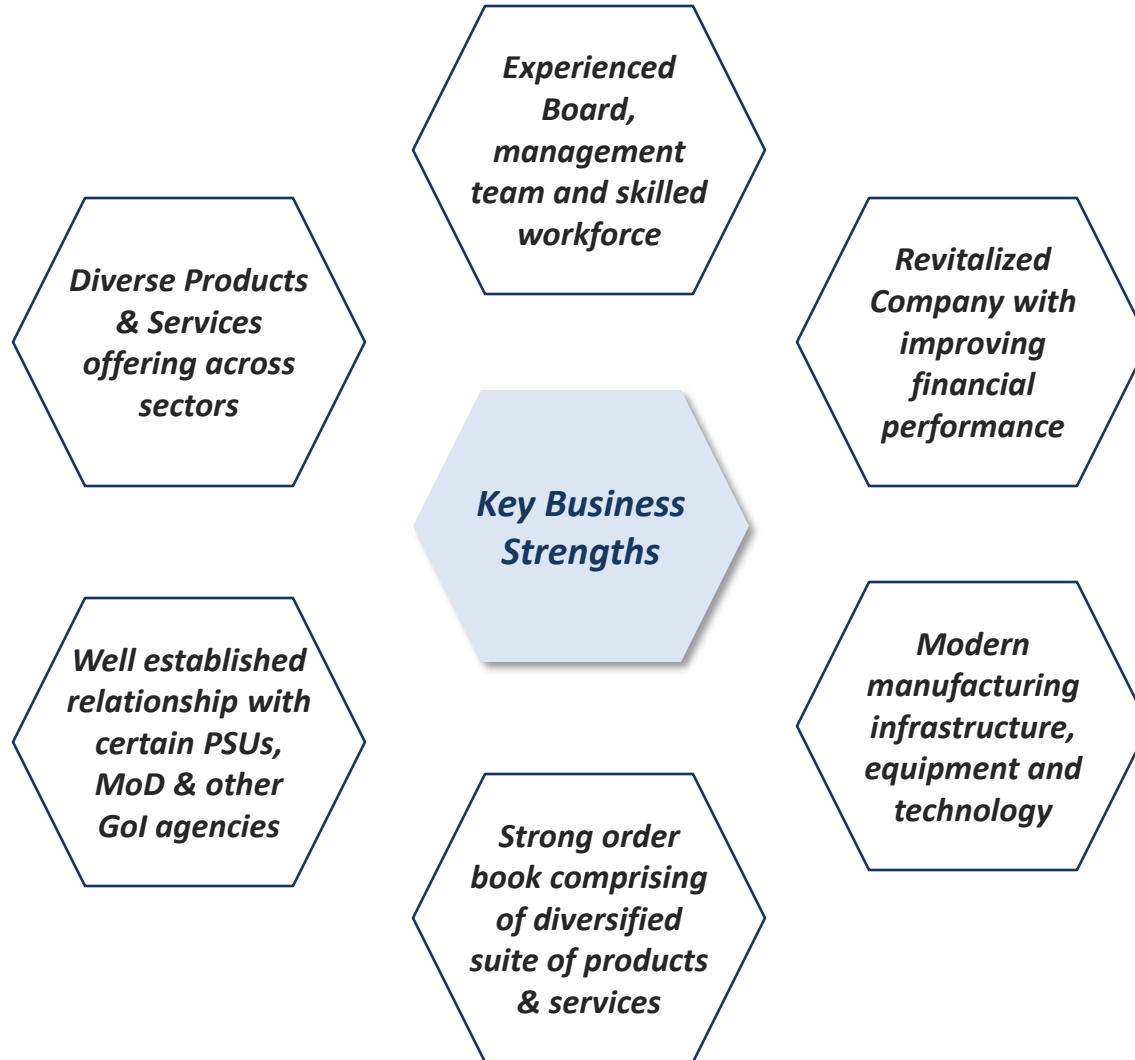## Traded Electronic & Communication Products

- Optical transport network (OTN) – DWDM
- Managed leased line network products (MLLN)
- Signaling point network products
- IP/MPLS routers & switches
- Network management system solutions
- Microwave & satellite communication equipment
- Next generation network equipment
- IT products & solutions

Contract Manufacturing Services & Solutions

- ITI offers a variety of contract manufacturing services & solutions.
- Contract manufacturing services include electronic manufacturing at Bengaluru, Palakkad, Raebareli & Mankapur plants; mechanical fabrication & 3D printing services at Bengaluru plant; & electronic PCB manufacturing at Bengaluru & Palakkad plants

Experienced Board, management team and skilled workforce

Diverse Products & Services offering across sectors

Revitalized Company with improving financial performance

Key Business Strengths

Well established relationship with certain PSUs, MoD & other GoI agencies

Modern manufacturing infrastructure, equipment and technology

Strong order book comprising of diversified suite of products & services

With over seven decades of experience in telecom technology → ITI is Evolving from a Telecom Equipment Manufacturer to a Telecom Technology Company

Diverse product offering to a wide customer base across diverse industry segments

- *ITI caters to a wide customer base across various industry segments such as telecom, defence, information technology, banks and financial institutions and solar energy*

- *Diverse suite of products including defence security encryption; optical and data network & passive infrastructure products such as GPON, MLLN & signaling transfer point (STP) solutions, optical fibre cable, HDPE ducts, electrical products & IoT products.*

Wide range of IT & Software services

- *ITI provides a wide range of services including IT & software services such as data centre hosting solutions, digital wallet solutions, Aadhaar authentication services, cable and optical fiber laying services*

- *In addition, ITI also offers citizen centric services such as National Population Register (NPR) & Socio Economic and Caste Census (SECC)*

Collaboration with third parties – De-risking Business Operations

- *ITI's business model which focuses on collaborations with third parties for technology, R&D, as well as utilizing its large and modernized manufacturing capabilities enables it to provide comprehensive and integrated products and service offerings to its customers across sectors thereby de-risking its business model*

Diverse products & services has helped forge relations with customers including PSUs such as..

- -

History of high customer retention → Supplied MLLN equipment to BSNL since 2001 & MTNL since 2002

| BBNL | EESL | MoD | MoUD |
| BSNL | MTNL | MoRD | Registrar General of India |

ITI is engaged in various projects of national importance

ASCON – *Providing maintenance services for ASCON in its first three phases*

BharatNet – *Manufacturing, supplying and installing GPON technology equipment for the GoI's flagship project "BharatNet", which aims to provide high-speed broadband connectivity to over 250,000 Gram Panchayats in India*

Network for Spectrum (NFS) – *Laying optical fiber cable under NFS project for Indian defence in Eastern & North-Eastern regions with BSNL*

Smart Energy Meters – *Manufacturing and supplying 2.5 million smart energy meters for EESL*

Space Programs – *Providing manufacturing and component screening services to the Indian space program*

E-Governance Projects – *Manufacturing & supplying products & services for e-Governance projects like the NPR, the SECC project and Aadhaar authentication services → ITI is one of the three agencies appointed by GoI for citizen centric projects*

ITI contributes to a number of campaigns and policy initiatives sponsored by the GoI

| **Make in India**	**Digital India**	**Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**	**Swachh Bharat**
ITI manufactures number of electronic, ICT & encryption products. Also, ITI has invited MNCsto enter into agreements, or manufacturing their products in India	*ITI's data centre, digital wallet (TAG ITI), Aadhaar authentication & smart cards, along with IoT products are contribution to the campaign. Also, supplying & installing GPON technology equipment for "BharatNet"*	*Established skill development center in Bengaluru plant & plans to set-up skill centers in other manufacturing facilities*	*Contract to install an IOT based solution to capture real time feedback from community & public toilets in 12 states across India*

## Leveraging GoI's preferential market access policy

ITI benefits from GoI's preferential market access policy where indigenous manufacturers are given preference in procurement by Govt. agencies. Indian manufacturers with a defined value addition are given preference over foreign/domestic manufacturers not meeting the value addition requirement

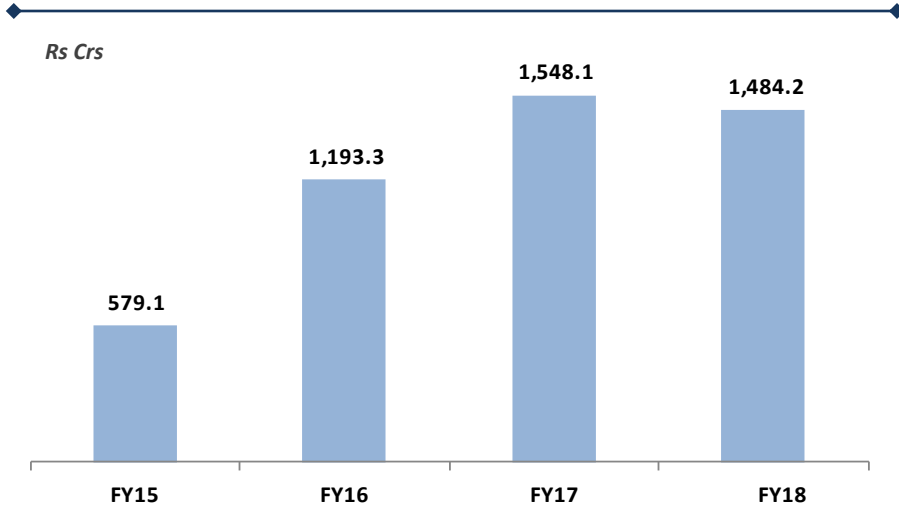| O/S- Aug 31, 2018	Rs Crs
BTS – O&M	6,633.6
MahaNet	2,658.3
Smart Energy Meters	817.3
Ros/CCOs/IT/ITI/Misc	592.6
NFS	566.5
GPON	238.9
AMC for ASCON	197.8
GSM SZ/WZ	175.5
Others	231.4
Total	**12,111.7**
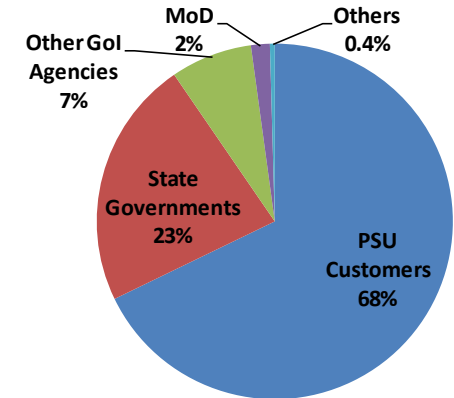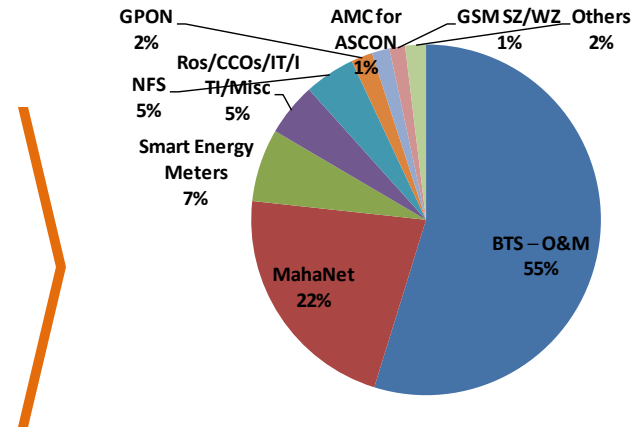
BTS O&M – *Purchase order for O&M of BTS for the GSM network of BSNL in Tamil Nadu, Uttar Pradesh and Uttarkhand for the next ten years. The scope of work includes O&M of passive infrastructure of BTS sites*

MahaNet – *MahaNet project in Maharashtra state includes laying of OFC cable, supply of access equipment and other related products as well as maintenance services.*

Smart Energy Meters – *ITI has a contract to manufacture & supply 2,500,000 smart energy meters for Energy Efficiency Services Ltd (EESL)*

NFS Project – *Contract with BSNL for laying optical fiber cable under the NFS project for the Indian defence forces in the Eastern and North-Eastern regions*

GPON Equipment – *Contracts from BSNL & BBNL for turnkey project to supply & install GPON equipment for GoI's flagship project "BharatNet". ITI has executed supply of OLTs, ONTs & solar power equipment which aims to provide high-speed broadband connectivity to over 250,000 villages (Gram Panchayats) in India. The existing order covers AMC of the supplied products*

AMC for ASCON – *AMC for maintaining the nodes, optical fiber cable & optical terminal & secrecy equipment for the MoD's ASCON Phase I, II and III projects.*

GSM SZ/WZ AMC – *Orders for AMC of GSM equipment previously supplied by ITI to BSNL south zone circles including Karnataka, Tamil Nadu, Kerala, Andhra Pradesh & Chennai*

ITI'S MODERN MANUFACTURING FACILITIES

BENGALURU

MANKAPUR

NAINI

PALAKKAD

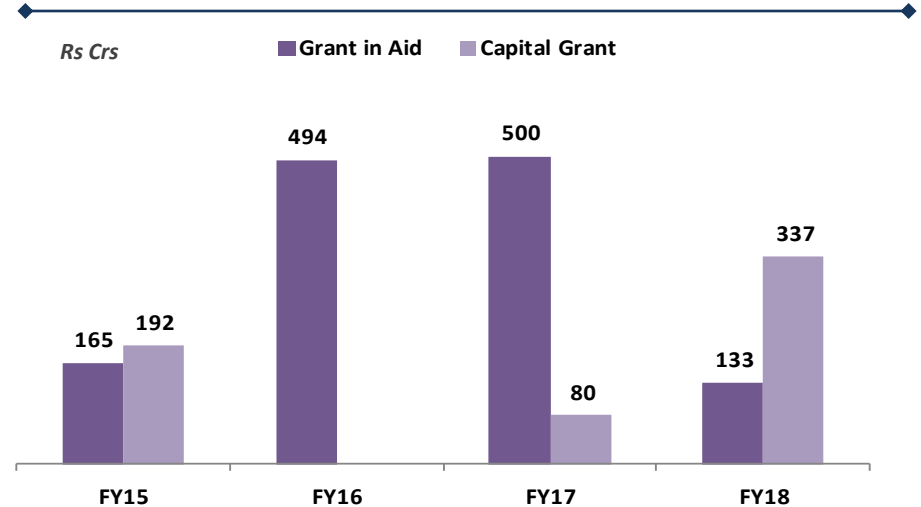RAEBARELI

R&D Centre
in Bengaluru
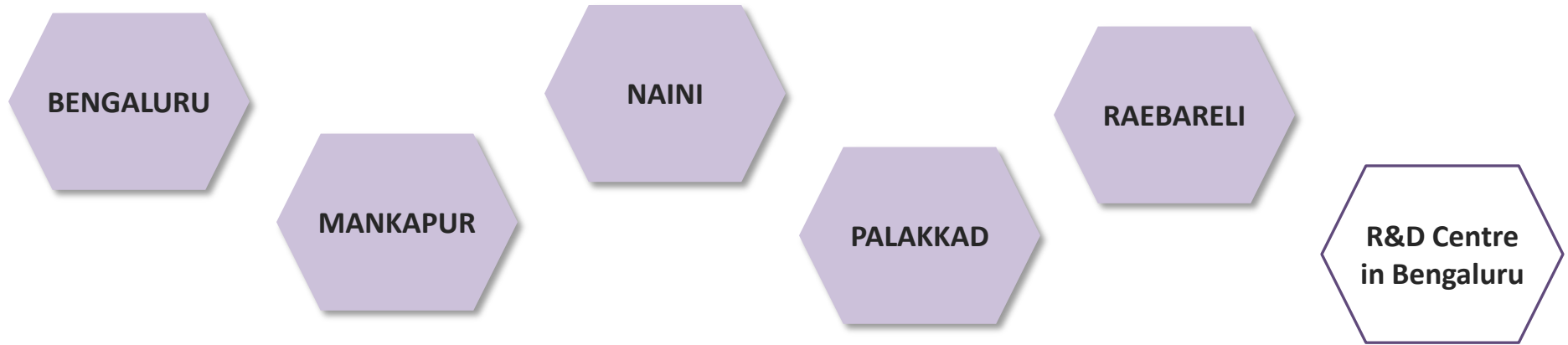
- *ITI has upgraded and continues to modernize its manufacturing facilities, infrastructure, machines, equipment and technology which allows it to offer a diverse suit of products & services, reducing operating costs and drive productivity*

- *ITI in its bid to further diversify its manufacturing capabilities has added manufacturing of GPON products including optical line terminals (OLTs) and optical network terminals (ONTs), OFC and a high-density polyethylene (HDPE) manufacturing line to its Raebareli facilities. ITI has also established HDPE duct manufacturing lines at its Palakkad unit.*

- *In addition, the electronic manufacturing facilities at its Bengaluru, Raebareli, Palakkad and Mankapur plants have been upgraded to manufacture a diverse suite of products including other optical and data network products, defence security encryption, IoT amongst others –*
  - ✓ *smart energy meters*
  - ✓ *smart cards, solar panels*
  - ✓ *set-top boxes,*
  - ✓ *mini personal computers*
  - ✓ *3D printing,*
  - ✓ *security surveillance products*
  - ✓ *radio modems and other allied product*

Growth in revenue from operations (FY14-18)...

Rs Crs

- FY15: 579.1
- FY16: 1,193.3
- FY17: 1,548.1
- FY18: 1,484.2

Govt. grants to meet operational & capex requirements

Rs Crs   ■ Grant in Aid   ■ Capital Grant

	FY15	FY16	FY17	FY18
Grant in Aid	165	494	500	133
Capital Grant	192		80	337

*Telecom equipment manufacturer → **Telecom technology**. ITI's strategy of diversification has helped it improve its financial performance*

Operational profitability linked to improving infrastructure, efficiency & diversification...

Rs Crs

- FY18: 97.6
- FY17: (94.3)
- FY16: (256.8)

Not inclusive of GoI grants
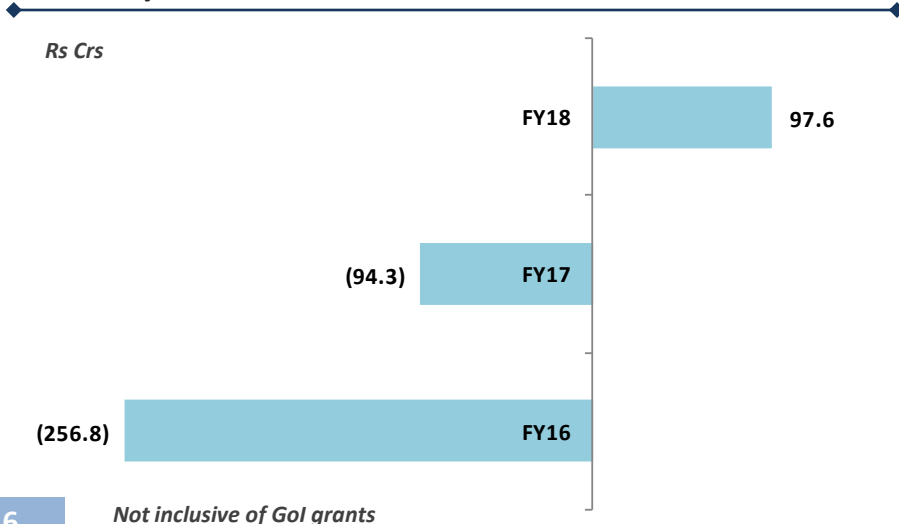
...improving operations leading to consolidated profitability

Rs Crs

Total comprehensive income

- FY15: (299.8)
- FY16: 252.6
- FY17: 302.9
- FY18: 232.0
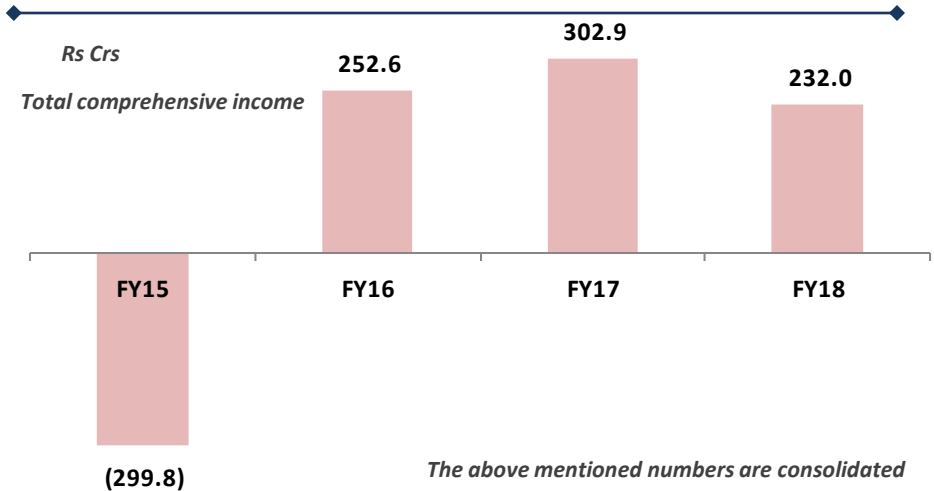
The above mentioned numbers are consolidated

The above mentioned numbers are as per IND AS

ITI's management team is well qualified & experienced in the industry . The combination of ITI's experienced board & management has been key in revitalizing the business & would also enable it to capitalize on further growth opportunities

Alagesan Kalingamuthu, *Director Production with additional charge of Chairman & MD*. He holds an engineering degree in production from University of Madras & a Diploma in Management & HR Management as well as an Advanced Diploma in Management from Indira Gandhi National Open University. Over 36 years of experience in production, marketing, billing & finance. Recipient of the Distinguished Alumnus Award by NIT, Tiruchirappali for excellence in corporate/ industry

Chittaranjan Pradhan, *Director with additional charge of Director (Finance)* He holds a bachelors and a masters degree in science, and a masters in philosophy from Sambalpur University. He has served over 20 years in the Indian P&T Accounts and Finance Service, Government of India. He has held the post of CCA, Tamil Nadu, Government of India

Rakesh Mohan Agarwal, *Director (Marketing) with additional charge of Director (Human Resources).* He holds a bachelors degree of engineering in electronics from Madan Mohan Malviya Engineering College, Gorakpur, a masters degree in electronics & communications engineering from University of Roorkee & a MBA from Indira Gandhi Open University. He has over 28 years of experience in policy formulation, standardization planning, O&M of telecom services & was previously the Government Nominee Director

Saday Krishna Kanoria, *Non-Official, Ind. Director (Non-Executive)* He holds a bachelors degree in commerce from Patna University. He has been a director of Manav Developers Private Limited since August 8, 1988 and Manav Constructions Private Limited since May 27, 1998. He is also partner in the firm, Marwari Awas Griha in Patna.

Rajesh Sharma, *Government Director, Nominee (Non-Executive)* He holds a bachelors of engineering in electronics from Devi Ahilya Vishwavidyalaya, Indore and a post graduate diploma in management from Management Development Institute, Gurgaon. He has been working with the Department of Telecommunications, Ministry of Communications for the last 28 years.

Asha Kumari Jaswal, *Non-Official, Ind Director (Non-Executive)* She holds a bachelor of arts degree and masters degree in arts from Punjab University. She has over 15 years of experience in the legal profession and in the administrative field. She was the mayor of the Municipal Corporation of Chandigarh and is currently also the councillor of the Municipal Corporation of Chandigarh.

As at Aug 31, 2018, ITI has 3,427 employees, including more than 710 employees with technical and professional qualifications

Suresh Chandra Panda, *Non-Official, Ind. Director (Non-Executive)*
He holds a masters of arts degree in political science from Utkal University, Orissa, a MBA in public services from University of Birmingham, UK and a masters of arts in philosophy from Punjab University. He has 39 years of experience as an I.P.S & I.A.S. Previously worked with Prasar Bharati, as a Special Secretary & Financial Adviser in the Ministry of Home Affairs, as a Development Commissioner of the Noida Special Economic Zone and as a Director for the National Commission for SC/STs.

Dr. K. R. Shanmugam, *Non-Official, Ind. Director (Non-Executive)*
He holds a bachelors degree of arts in economics from the University of Madras, a masters degree of arts in economics from the Bharathiar University, a masters degree of philosophy in econometrics from the University of Madras and a doctor of philosophy in econometrics from the University of Madras. He has been working as a Director and Professor with the Madras School of Economics for over 23 years

Dr. Akhilesh Charan Dube, *Non-Official, Ind. Director (Non-Executive)*
He holds a M.B.B.S degree from University of Jabalpur and a Master of Surgery in Othopedics from Devi Ahilya Vishwavidyalaya, Indore. He has previously worked as a Medical Officer with the Primary Health Center of the Birkony District in Chattisgarh.

Mayank Gupta, *Non-Official, Ind. Director (Non-Executive)*
He holds a bachelors degree in technology in electrical engineering from Gobind Ballabh Pant University of Agriculture and Technology. He has also, in the past, been the Director of Eurokids Schools, Roorkee, the President of The Nataraj Group and the President of the Yoganand Vikas Parishad

Rajen Vidyarthi, *Non-Official, Ind. Director (Non-Executive)*
He holds a bachelors degree in commerce from Rohilkhand University and is a member with the Institute of Chartered Accountants of India. He has been a partner of the chartered accountancy firm, R. Vidyarthi & Co for the last 28 years

Key Business Strategies

Continuously diversify suite of product and services and leverage relationships with the GoI and PSUs

- ITI has been developing and introducing new products in collaboration with its technology partners including optical & data network products, defence security encryption, IoT products as well as other diversified products

- In addition, ITI offers a range of services including fiber laying services, data centre hosting solutions, AMC, contract manufacturing services and IT & software services.

- ITI plans to continuously upgrade & invest in technology, through acquisition of technology from strategic partners with a specific focus on high growth industry segments.

- The Company intends to continue to develop products & services with applications targeting customers across sectors such as telecommunications, defence, IT, banks, financial institutions & solar energy.

- ITI, currently implementing numerous GoI projects intends to continue to leverage its relationships with PSUs, MoD & other Government agencies to win large tenders & contracts which ITI believes that it shall benefit from economies of scale, to develop relationships with technology partners and to drive revenue growth.

- In addition, the company intends to leverage a new PSU synergy initiative by the DoT to utilize strengths of each PSU and for transfer of technology . ITI also holds regular interactions with stakeholders by conducting conferences.

Augment its manufacturing capabilities by upgrading and modernizing infrastructure and technology

- ITI has been upgrading its manufacturing facilities, infrastructure, machines, equipment, technology and employee skill sets that has allowed it to enhance its product offerings, reduce operating costs and drive productivity.

- ***ITI's capital expenditure plans include the following*** –
  - upgrading of its electronic and mechanical manufacturing facility;
  - expanding its data centre operations by building a Tier 3 plus data centre with 1,000 racks space at Bengaluru;
  - setting up radio modem and smart energy meter manufacturing;
  - building electromagnetic compatibility & interference chambers for testing telecommunication & defence products;
  - expanding its defense encryption products and solutions capabilities;
  - setting up a solar panel manufacturing facility at Naini plant with 18MW capacity;
  - expanding smart card manufacturing; and
  - OFC and HDPE duct manufacturing

Teaming with innovative technology leaders and start-ups

- *Continue executing teaming agreements, MoU & technology transfer (ToT) agreements with technology & telecom companies as well as start-ups for access to new technology & products to expand the Company's offering to customers as well as to drive efforts toward innovation.*

- *ITI has ToT agreements with various technology & telecom companies for certain technology & products including MLLN & OTN equipment, telecom & IT products such as GPON, Wi-Fi, terabit routers, fixed line & GSM technology*

- *ITI's teaming partners, include CDAC for IoT solutions; & Trimax Data Center Services Pvt Ltd for data centre services*

- *ITI intends to continue to build relationships across the communication & technology eco-system with institutions including system integrators, software & hardware companies & network service companies*

- *ITI believes that this knowledge of both products & the entire product development ethos helps to evolve a product & service development culture that is aligned with its customer requirements, employees & processes*

- *ITI also engages in discussions with its technology partners to bring opportunities to assist each other to grow and enrich respective understandings of the telecom technology industry & technical knowledge.*

- *ITI expects to continue to cultivate a cooperative R&D culture with its customers, technology partners & employees*

Reduce operating costs, increase operational efficiencies and improve productivity

- *In order to improve the Company's margins & profitability, ITI endeavors to continue to rationalize costs*

- *ITI's management strives to place great emphasis on cost control & improving operating efficiencies, especially in light of upgrading of its infrastructure, equipment & technology & its expanded product suite*

- *ITI intends to drive cost savings by teaming with technology partners through subcontracting & outsourcing; also looking to reduce its social overheads including medical costs, canteen subsidies & transportation expenses*

- *ITI plans to drive improved productivity per employee by its (i) modernized & upgraded infrastructure (ii) company-wide emphasis on R&D and innovation (iii) continued training & improvement of its employees' skills & training*

- *ITI intends to monetize its land & property by finding additional & alternative uses, including by offering*
  - *vacant office space and factory hangers on rental basis to outside agencies*
  - *vacant sheds and RCC structures for warehousing/logistics purposes*
  - *the unused auditorium space in the Bengaluru plant for conducting functions or sporting purposes*
  - *unused community hall at Bengaluru plant for marriage purposes*
  - *convert existing hospital in Bengaluru manufacturing township into a multi/super specialty hospital*
  - *open spaces for sporting events, CNG/PNG station and distribution outlets*

Income Statement* *(INR Crs)*

Particulars (Rs Crs)	FY15	FY16	FY17	FY18
Revenue from Operations	579.1	1,193.3	1,548.1	1,484.2
Other Income	84.9	597.0	540.6	327.5
Total Revenue	**664.0**	**1,790.3**	**2,088.7**	**1,811.6**
Cost of Material Consumed	43.0	41.3	92.6	313.4
Purchases of Stock in Trade	142.1	628.2	512.2	232.0
Changes in Inventories of FG, WIP & Stock in Trade	2.1	0.4	(17.6)	11.8
Installation & Maintenance Charges	213.9	318.1	642.1	526.1
Employee Benefit Expenses	321.2	332.5	300.9	225.5
Interest	157.3	157.2	152.6	153.4
Depreciation	15.3	12.9	16.9	24.9
Other Expenses	67.2	62.5	122.7	94.0
Total Expenses	**962.0**	**1,553.1**	**1,822.3**	**1,581.1**
PBT	**(298.0)**	**237.2**	**266.4**	**230.6**
Tax	-	-	-	-
Total Comprehensive Income	**(299.8)**	**252.6**	**302.9**	**232.0**

Balance Sheet* *(INR Crs)*

Particulars (Rs Crs)	FY15	FY16	FY17	FY18
Equity	288.0	288.0	560.0	760.0
Reserves & Surplus	(2,198.5)	(1,925.1)	(1,808.6)	(1,434.0)
Networth	**(1,910.5)**	**(1,637.1)**	**(1,248.6)**	**(674.0)**
Long term borrowings	300.0	300.0	300.0	300.0
Working Capital Loans	920.8	838.9	879.2	926.3
Total Debt	**1,220.8**	**1,138.9**	**1,179.2**	**1,226.3**
Government Grants	**7.3**	**2.6**	**122.9**	**119.1**
Fixed Assets (Net Block + CWIP)	**96.0**	**195.7**	**259.6**	**429.8**
Current Assets	**2,881.3**	**3,284.1**	**2,904.2**	**4,232.1**
Inventories	*93.3*	*103.8*	*142.3*	*155.9*
Trade receivables	*2,218.7*	*2,743.2*	*2,196.0*	*3,079.9*
Cash and bank balances	*45.8*	*50.0*	*24.4*	*41.3*
Bank Balances	*225.4*	*71.2*	*141.9*	*283.5*
Short term loans and advances	*269.2*	*258.8*	*333.5*	*385.5*
Unbilled Revenue	*-*	*21.3*	*36.7*	*237.2*
Other current assets	*28.8*	*35.7*	*29.5*	*48.8*
Current Liabilities	**3,612.2**	**3,922.7**	**3,078.7**	**3,948.1**
Trade payables	*2,283.0*	*2,105.3*	*1,976.0*	*2,261.6*
Other current liabilities	*142.9*	*766.3*	*230.7*	*742.3*
Short term provisions	*352.5*	*241.9*	*148.4*	*120.1*
Others	*833.8*	*809.1*	*723.6*	*824.1*
Net Working Capital	**(731.0)**	**(638.6)**	**(174.5)**	**284.0**

*Balance Sheet & Income Statement as on March, 31

Thank you

Annexure – Industry Section

CRISIL Report – "Information & communication technology scenario in India"

Indian Telecom industry, still in the development stage, is expected to grow at CAGR of ~7-9% (FY17-23)

Telecom Subscriber Base	FY15	FY16	FY17	FY18	FY19 (P)	FY20 (P)	FY21 (P)	FY22 (P)	FY23 (P)
Wireless subscribers (mn)	970	1,034	1,170	1,183	1,204	1,228	1,250	1,278	1,308
Data subscribers (mn)	283	322	401	452	491	550	629	720	832
Data subscriber proportion	29%	31%	34%	38%	41%	45%	50%	56%	64%
2G and 3G data subscriber (mn)	283	314	269	177	131	102	79	61	47
2G and 3G data subscriber proportion	29%	30%	23%	15%	11%	8%	6%	5%	4%
4G data subscriber (mn)	1	8	131	275	360	448	550	659	785
4G data subscriber proportion	0%	1%	11%	23%	30%	36%	44%	52%	60%

The key industry drivers are the expected increase in the subscriber base & the focus of telecom operators to improve service quality
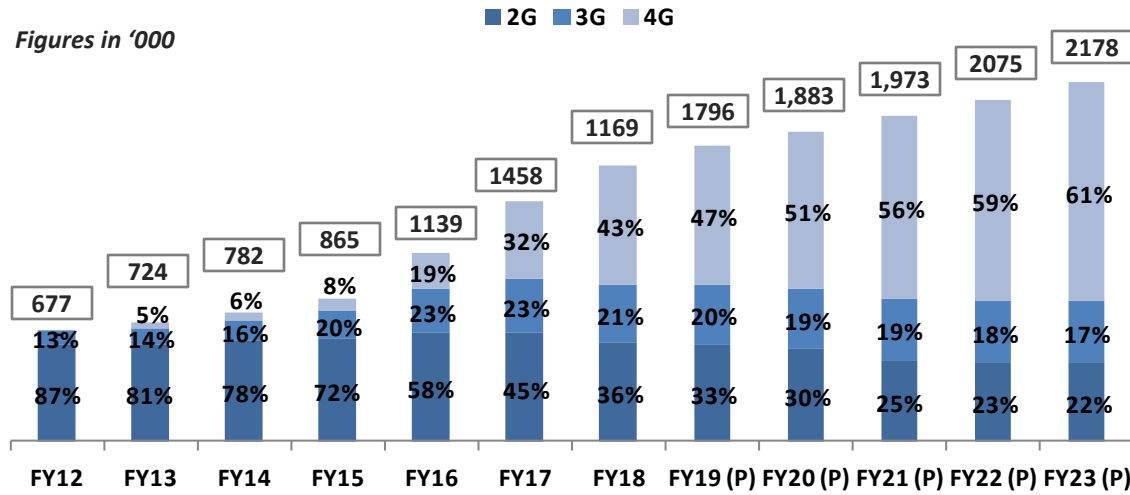
These drivers will drive investments in the telecom equipment industry, as operators incur capital expenditure to improve backhaul. In addition, the upgrading of infrastructure to handle a higher proportion of data subscribers will also aid investments in this space

GoI's initiatives, such as "Make in India" and "Digital India" have provided impetus for development of local manufacturing units and projects such as BharatNet & Smart Cities Mission have also boosted demand for telecom equipment

With increase in the number of local manufacturers, dependence on imports will decline – MNCs have set up units in India owing to the conducive environment for growth & development → driving growth in FDI thus leading to an influx of foreign technology

Indian telecom sector will drive demand in the telecom equipment space → growth in the telecom equipment industry will be supported by long-term telecom industry growth and focus by telecom operators on improving service quality
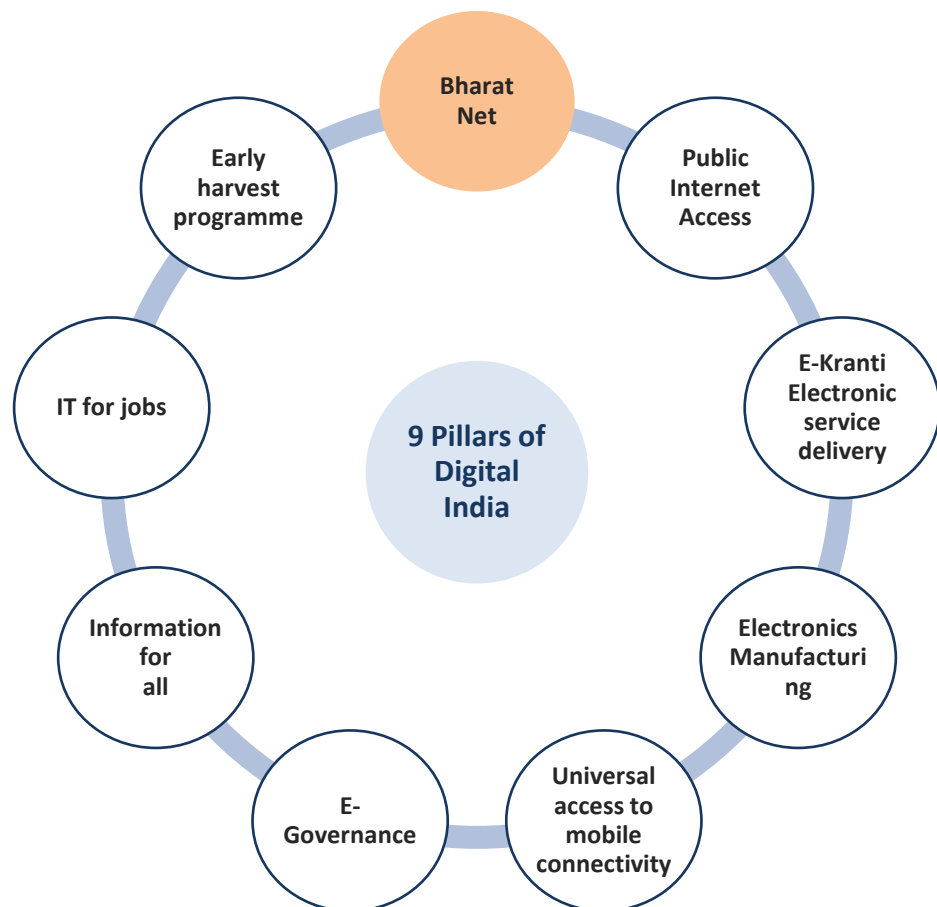
Base Transceiver Stations (BTS)

Figures in '000

Legend: ■2G ■3G ■4G

FY	Total	2G	3G	4G
FY12	677	87%	13%	
FY13	724	81%	14%	5%
FY14	782	78%	16%	6%
FY15	865	72%	20%	8%
FY16	1139	58%	23%	19%
FY17	1458	45%	23%	32%
FY18	1169	36%	21%	43%
FY19 (P)	1796	33%	20%	47%
FY20 (P)	1,883	30%	19%	51%
FY21 (P)	1,973	25%	19%	56%
FY22 (P)	2075	23%	18%	59%
FY23 (P)	2178	22%	17%	61%

- *Installed BTS ecosystem is set to undergo change in mix of 2G, 3G, & 4G BTS; overall BTS will grow at a 5-7% CAGR (FY18-23)*

- *Reduction in 2G BTS, as subscribers to migrate from 2G to 3G & 4G will be off set by growth in in 3G & 4G BTS*

- *Majority of demand for high-end 4G BTS & single-RAN BTS is fulfilled by imports. ITI manufactures low-power CDOT technology BTS at its manufacturing facility in Mankapur*

Broadband Wireless Terminal (BBWT)

- *Primary reason for low-data pickup in India has been low mobile broadband speed, amongst the lowest in countries offering 4G services. In India, majority of data traffic flows through mobile networks that face congestion during peak hours, leading to poor mobile broadband experience*

- *Globally, 93% of the traffic flows through fixed broadband. This compares with approximately 89% in India, of which Wi-Fi caters to 35-40%*

- *On average, a global consumer spends over 45% of time on Wi-Fi internet, compared with 20% in India, most of this is at home; Indian consumers often do not access internet on Wi-Fi outside is due to lack of public Wi-Fi hotspots → there are about 38,000 Wi-Fi public hotspots in India*

- *Additionally, rural tele-density in India is 56.3%, compared with urban penetration of 163.4%, this tele-density gap along with need for higher number of public Wi-Fi hotspots indicates that there is great potential in rural & urban India for additional Wi-Fi penetration*

- ***New National Telecom Policy 2018*** *→ enabling access to high-quality wireless broadband services at affordable prices to 90% of the population, developing 10 million public Wi-Fi hotspots in the country, and achieving 900 mn broadband connections. Under this policy, the number of Wi-Fi hotspots in India is set to increase significantly from 38,000 at present to approximately 500,000 over the medium term*

9 Pillars of Digital India

- Bharat Net
- Public Internet Access
- E-Kranti Electronic service delivery
- Electronics Manufacturing
- Universal access to mobile connectivity
- E-Governance
- Information for all
- IT for jobs
- Early harvest programme

BharatNet Infrastructure Project

- BharatNet is a key infrastructure project of the GoI, under which the GoI aims to connect 250,000 villages

- The infrastructure is designed primarily to provide for broadband internet in rural areas and remote regions of the country

- To execute BharatNet, GoI has set up a special purpose vehicle called BBNL, which is responsible for management and operation of the network

- **Phase I** → covered 100,000 gram panchayats, has been completed & was implemented by three PSUs: BSNL, RailTel Corporation of India and Power Grid Corporation of India

- **Phase II** → will cover the remaining 150,000 gram panchayats, was given a deadline of March 2019. The GoI has earmarked approximately Rs310 bn for Phase II, which a significant step-up from approximately Rs115 bn spent for Phase I

- In 2017, the Ministry of Communications announced plans to set up a minimum of one Wi-Fi hotspot per village. GoI has announced a viability gap funding of Rs36 bn to telecom operators for these Wi-Fi hotspots

- BharatNet infrastructure utilises GPON technology, which allows for point to multi-point connections. The GPON architecture utilises a variety of components, namely, optical fibre cable pipes, and optical fibre cables and terminals which transmit and receive information.

- **GPON Equipment for BBNL** → Of the Rs8 bn value of GPON equipment estimated for BharatNet, only 8% has been spent as of FY17. This leaves a room for higher investments in GPON in the short term, which will be driven by BharatNet

Army Static Switched Communication Network (ASCON)

Phase	Timeline	Awarded	Comments
I	1987 - 1991/92	ITI	Utilised mainly by the wireless radio technology
II	1995 - 1998	ITI	Utilised mainly by the optical fibre technology
III	2000 - 2006	ITI	Utilised asynchronous transfer mode & Integrated Services Digital Network technology along with a satellite overlay network
IV	2017 - 2021		**Utilise a slew of new technologies based on IP/multiprotocol label switching technologies utilising IPv6-capable devices**

- *ITI is currently in negotiations for Phase IV*
- *ASCON, Phase IV, is a project with the MoD that entails the establishment of an optical fiber network for the Indian army*
- *Supply, installation, & maintenance of the optical fiber network & telecom equipment, mobile terminals, microwave towers, power supply equipment, test instruments etc*
- *The project is to be executed over a period of three years from the date of contract signing followed by 2 years of warranty support and 8 years of AMC support*

Network for Spectrum (NFS)

- *NFS is a strategic communications network project to develop and install an OFC network to be owned and operated by the defence services under the Project Implementation Core Group (PIGC) of the Ministry of Defence*

- *NFS involves establishing an exclusive OFC-based nationwide optical backbone for 414 defence sites & access networks at 219 army sites*

- *NFS project comprises all OFC routes, aggregating to 57,015 km, which is divided into seven packages. The NFS project, has been awarded to BSNL with an estimated cost Rs133.34 bn*

- *The implementation of this project is undertaken jointly by BSNL and PICG, whereby all essential project monitoring, installation, testing and acceptance will be carried out by joint teams.*

- *The GoI has allocated Rs30 bn for laying of OFC and procurement of equipment for the project in Fiscal 2018. ITI has an order for laying optical fiber cable amounting to ~Rs5.7bn under the NFS project for the Indian defence forces in the Eastern and North-Eastern regions*

In 2015, as a part of the Digital India campaign, a centre of excellence for IoT was announced by the Ministry of Electronics & Information Technology

The Smart Cities Mission, which seeks to modernise cities with an emphasis on smart technologies, utilises IoT-based technologies

Smart City Solutions

The Indian government launched the Smart Cities Mission in, 2015. A smart city is a designation given to a city using information & communications technology (ICT) to enhance the quality and performance of urban services

Under the Smart Cities Mission, each selected city gets central assistance of Rs2 bn in the first year and Rs1 bn per year for the next three years, with a matching contribution from its respective state

It is expected that Rs1.2 tn (~60% of planned investment) will be spent by FY22. In Nov 2017, it is estimated that Rs60 bn of municipal bonds to be issued over the next three fiscals from progressive & proactive ULBs (city union-local bodies) as funding for various project

Proposed expenditure of Rs2 trillion planned for 99 cities selected in the Smart Cities Mission
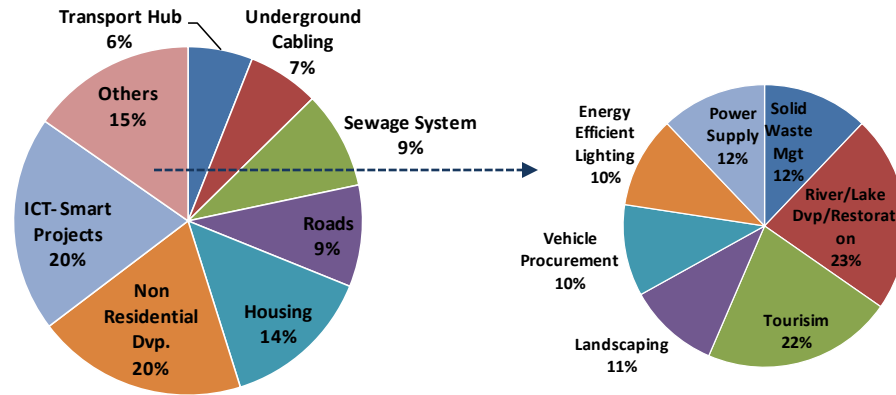
ICT, non-residential development & housing will account for more than 40% of planned investment in the Smart City Mission. The GoI primary focus is to enable local area development by using digital technology & ICT, which received approximately 15.7% of funds

Projects such as data visualization, intelligent traffic management systems, bus-fleet tracking & smart-parking systems, are also gaining importance → ITI is one of the key players providing smart-city solutions in India
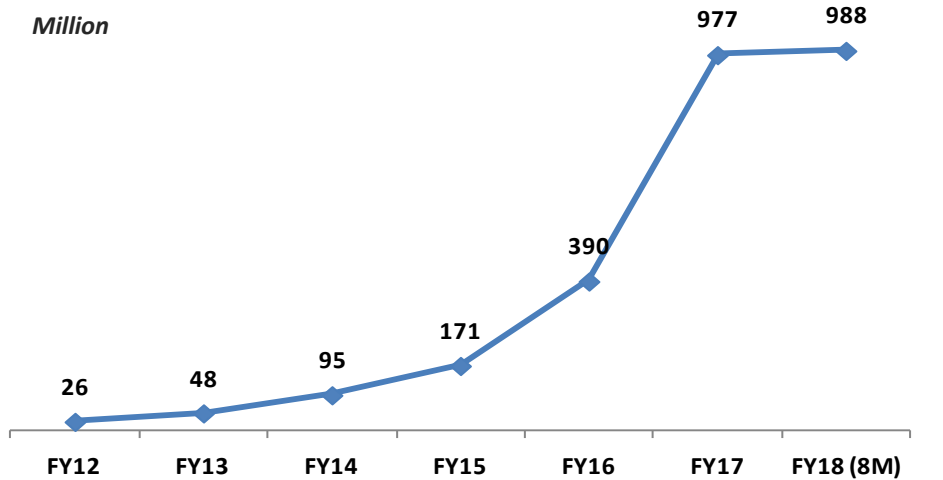
Smart Energy Meters

- *Installation of smart meters has received support from the GoI only in recent years, through policies and programmes such as the **National Tariff Policy**, the **Integrated Power Development Scheme**, the **Ujwal Discom Assurance Yojana** & smart grid pilot projects*

- ***Ministry of Power*** *(MoP) – Several policy initiatives to promote smart metering → In 2012, the MoP sanctioned 14 projects for smart grids, with 50% funding to be provided by GoI → 172,000 smart meters have been sanctioned → over 57,368 smart meters have been installed*

- ***Ujwal Discom Assurance Yojana*** *(UDAY), 2015 –*
  - *Target to install smart meters for consumers with a monthly consumption of more than 500 units by December 31, 2017*
  - *As of Feb '18, ~2.9% of the targeted 5.01 mn meters had been installed for consumers with consumption more than 500 kWh/month*
  - *For consumers in the 200-500 kWh category, the achievement was only 0.97% of the target of 17.45 mn smart meters*
  - ***Indicating that there is a large potential for the smart meter market***

- ***Energy Efficiency Services Ltd*** *(EESL) – Installing smart meters through the Smart Meter National Programme (SMNP) to reduce discoms' billing inefficiencies. The SMNP aims to replace 250 million conventional meters with smart meters.*
  - *EESL launched a mega tender to procure 5 mn smart meters in July 2017 on behalf of the Uttar Pradesh and Haryana Discoms for implementing smart-grid projects in these states. The smart meters are planned to be installed over three years*
  - *ITI has a contract to manufacture and supply 2,500,000 smart energy meters to EESL*

- ***Private Initiatives by Other DISCOMS**–*
  - ***Tata Power Delhi Distribution Ltd** – announced that it would roll out 250,000 smart meters for its customers*
  - ***Calcutta Electric Supply Corporation Ltd** – The rollout of smart meters will cover over 180,000 consumers across the service area*
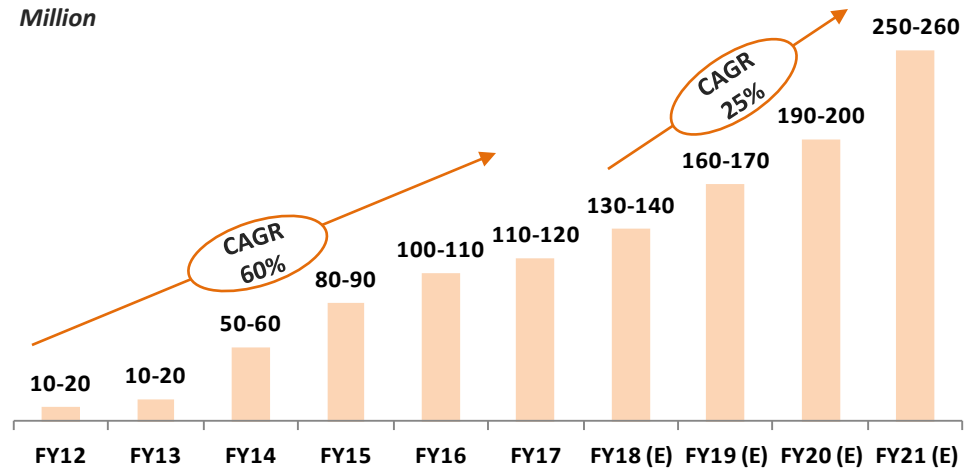
Aadhar Cards

- *Aadhaar has grown to be the world's largest biometric ID system, with over 1.2 bn enrolled members as of April 2018*

- *In FY19, UIDAI (statutory authority for Aadhar) has been provided a 15% higher budget allocation of funds at Rs13.75 bn, viz-a-viz Rs12 bn in FY18. These funds are expected to be used for technology upgradation & strengthening overall capacity*

- *ITI has ventured into providing Aadhaar-based authentication services based on the SaaS model to address various segments*

Digital Wallets

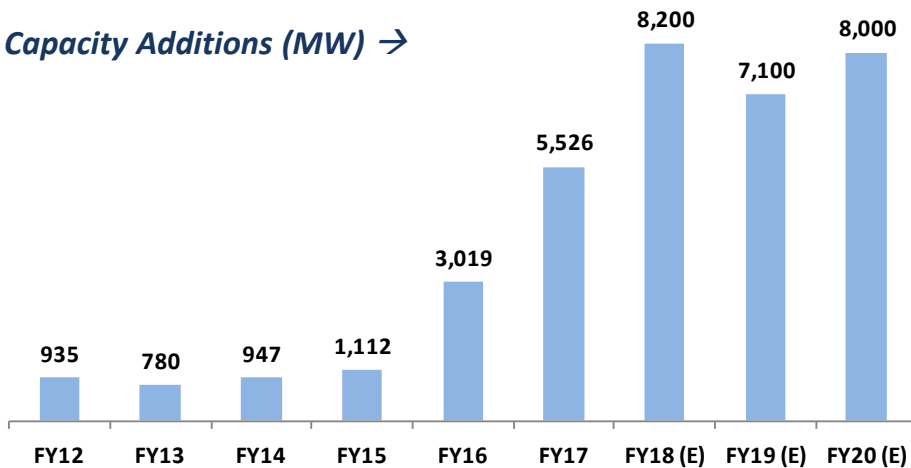### GoI emphasis on cashless transactions has led to an increased demand for mobile transactions

Million

Line chart values:
- FY12: 26
- FY13: 48
- FY14: 95
- FY15: 171
- FY16: 390
- FY17: 977
- FY18 (8M): 988

Growing smart phone sales serving as key enabling driver for mobile wallets

Million

Bar chart values:
- FY12: 10-20
- FY13: 10-20
- FY14: 50-60
- FY15: 80-90
- FY16: 100-110
- FY17: 110-120
- FY18 (E): 130-140
- FY19 (E): 160-170
- FY20 (E): 190-200
- FY21 (E): 250-260

CAGR 60%

CAGR 25%

Solar Panels

Capacity Additions (MW) →

Bar chart values:
- FY12: 935
- FY13: 780
- FY14: 947
- FY15: 1,112
- FY16: 3,019
- FY17: 5,526
- FY18 (E): 8,200
- FY19 (E): 7,100
- FY20 (E): 8,000

- *Solar PV capacity addition of 23-24 GW over FY18-20 to be driven by additions under*
    - *National Solar Mission Phase II Batch II, III, IV, V and VI,*
    - *Capacities tendered by Discoms in various states, including Karnataka, Telangana, AP, Punjab, MP, Jharkhand & Tamil Nadu & rooftop projects*

- *ITI Ltd produces solar panels in its manufacturing facility in Naini, Uttar Pradesh. It has upgraded the capacity of the unit to 18 MW. It also received a contract for establishment of 14 MW solar plant*
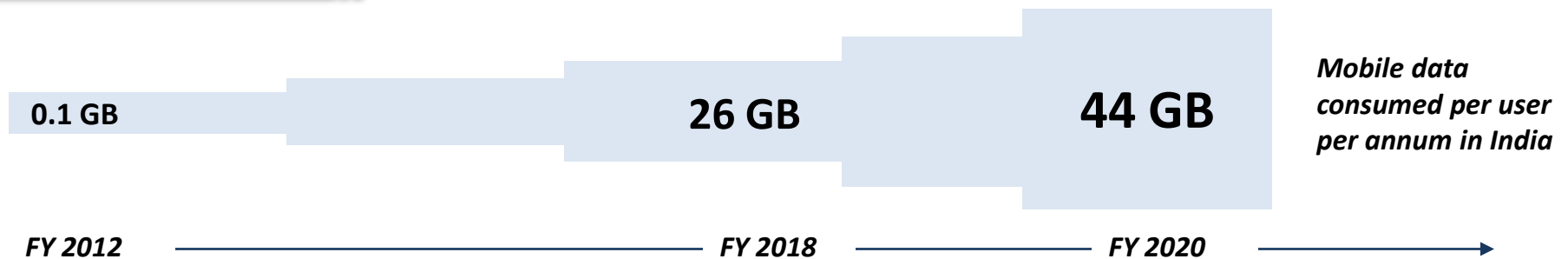
Smart Cards

- *As subscriber identity module (SIM) cards are a key enabler for wireless telecom. India currently has the 2nd largest wireless telecom subscriber base in the world with over 1.16 bn subscribers as of end of Dec 2017. the number of wireless subscribers to grow at a 2% CAGR, from an estimated 1.18 bn at the end of FY18 to 1.3 bn by the end of FY23*

Set-Top Boxes (STB)

- *STB market size at Rs280 bn in FY18 and is expected to grow at a CAGR of ~9% between FY18 and FY23*

- *SD STBs account for more than 90% of the total market in India; however, with the increasing penetration of HDTVs, subscribers are increasingly replacing their STBs with HD STBs → The move to HD STB coupled with increasing TV penetration, will drive growth in STBs*

Data Centre

0.1 GB   **26 GB**   **44 GB**   *Mobile data consumed per user per annum in India*

FY 2012 ———— *FY 2018* ———— *FY 2020* ————→

- *India has also seen data volumes growing → ITI has been offering data centre hosting services since 2009. Its existing capacity of 350 racks is now being expanded with 1,000 rack space at Bengaluru*