IN FOCUS

COVER STORY

ELECTRONICS MANUFACTURING: THE PROGRESS SO FAR

PERSPECTIVE

A NEW WAVE OF DIGITAL ECONOMY WITH PCS

SPOTLIGHT

STATE ROUND UP

MADHYA PRADESH
Dear Readers,

Welcome to the tenth issue of MAITWire-a particularly special issue as we enter the 35th year of MAIT. Set up in 1982, MAIT has evolved into a dynamic and influential organisation committed to developing a globally competitive, standards complaint and green ICT ecosystem in the country.

Our AGM in July and the ‘Accelerating Digital India Initiative’ saw the launch of two report papers: IoT for Effective Disaster Management and Aadhaar - A framework for Citizen Centric Services. These, together, have set the ball rolling for more and more companies to showcase their solutions for a Digital India.

In this issue's cover story, we have tried to encapsulate viewpoints of industry leaders and the government on the National Policy on Electronics and its implementation on ground. We have an opinion article on how the PC will still be the primary technology companion going forward, as well as a coverage of MAIT's National IPR workshops in Mumbai, amongst other events.

Further, I am happy to inform you that our engagement with various state governments continue to deepen, and today we are working with more than half the country in conducting sensitisation workshops on ‘Good Procurement Practices for IT’, e-Waste advocacy and showcasing Digital India solutions. In fact, in the month of September, MAIT will be launching a mass campaign on e-Waste awareness and we look forward to your active participation and support.

I would also like to take this opportunity to congratulate and welcome MAIT's new Executive Council.

Look forward to your feedback and suggestions.

Regards,

Anwar Shirpurwala
Executive Director, MAIT
In the recent past, government initiatives such as ‘Make in India’ have been launched with the primary objective of creating more jobs and saving precious foreign exchange. A major part of the emphasis has been specifically on electronic manufacturing, as it is estimated that by the year 2020, the import bill on account of manufacturing will rise to US $ 400 billion - exceeding even the oil import bill! According to a report by Deloitte Touche Tohmatsu India Pvt. Ltd. released last year, the estimated domestic production of electronics is projected to be only US $104 billion, and the balance of US $296 billion would have to be met through imports. This has resulted in a renewed push by the Centre to boost electronics manufacturing in the country.

To trigger manufacturing of mobile phones in India, the government introduced the Duty Differential Scheme, which created an advantage for domestic manufacturing over import. Yet, currently all the components used for manufacturing of mobile phones continue to be imported by Indian manufacturers at zero percent duty, taking maximum advantage of the situation. For the most part, fully manufactured modules (made up of native components) are imported and very little value - limited to only testing and packaging – is added in India. Although, Gartner estimates that 139 million smartphones would be sold in India in 2016 (growing 29.5 percent year over year) the intensity of mobile handset manufacturing is still very low; approximately one to two percent of the overall value of the imported handsets. This poses two problems at the ground level: First, foreign exchange outflows continue unabated and second, the quality and quantity of jobs generated are of marginal value, since the manufacturing of mobile phones in India is hardly contributing to the GDP.

The PM has created a task force to help increase the intensity of manufacturing of mobile handsets in India. The terms of reference for the task force includes promotion of large scale manufacturing/assembly activity so as to achieve production of 500 million units of mobile handsets by 2019. This translates to an annual manufacturing output of Rs. 150,000 crore to Rs. 300,000 crore. If we extrapolate this reference linearly, it could mean the following:

- Between Rs. 50,000 Cr to Rs. 1,00,000 Cr for 2017 (US $7.5 billion to US $15 billion)
- Between Rs. 1,00,000 Cr to Rs. 2,00,000 Cr for 2018 (US $15 billion to US $30 billion)
- Between Rs. 1,50,000 Cr to Rs. 3,00,000 Cr for 2019 (US $23 billion to US $45 billion)

Therefore, despite total turnover being significantly higher, the current local value-add at one to two percent contributed by Indian manufacturers, will convert to a mere Rs. 2000 to 4000 Crores (USD 300 million to 600 million) by 2019.

ELECTRONICS MANUFACTURING: THE PROGRESS SO FAR
Recently to promote manufacturing of some components in India, like batteries, chargers and headsets, the duties on these were raised and brought at par with that of the imported handsets. Similarly, to encourage PCB manufacturing in India, MAIT strongly recommends that the duty on imported 'mounted PCBs' should be raised to 12.5 percent to bring it at par with the other components. This will encourage mobile handset manufacturers to set up PCB mounting facilities in India that could immediately raise the local value contribution from one to two percent to 10 percent. It will also create a local market for component manufacturers and help establish a component ecosystem in India. This in turn, will increase the local 'value add' further – creating additional jobs and saving the nation's foreign exchange.

In this issue of MAITWire, we have sought inputs from industry leaders on what they feel about the National Policy on Electronics and its on-ground impact. We asked them about their views on the duty differential scheme on certain IT products like CPEs and its likely impact on the domestic manufacturing of these products. Feedback was also obtained on the need to develop a component manufacturing ecosystem, for the manufacturing of electronics and IT products and the roadblocks that were hampering the growth of domestic manufacturing. Given below are excerpts from the interviews:

**Shri. Rajiv Bansal**  
Joint Secretary, Department of Electronics and Information Technology (DeitY)

Q: Has the National Policy on electronics and initiatives like Make in India, Digital India and Smart Cities been successful in attracting a substantial increase in the number of manufacturers in India?

A: The Government of India has taken several policy initiatives such as providing capital subsidy through Modified Special Incentive Package Scheme (M-SIPS), infrastructure development through Electronics Manufacturing Clusters Scheme (EMC), promoting innovation & entrepreneurship through Electronics Development Fund (EDF), mandating safety standards, rationalising tariff structure, provisioning differential excise duty dispensation etc., under the aegis of the National Policy on Electronics. Indigenous manufacturing of mobile handsets has increased substantially over the past year. Huge investments have been announced in several verticals across the electronics manufacturing sector. However, we need to attract mega investments to meet the target of 'Net Zero Imports by 2020'. We are keeping our ears to the ground and continuously taking feedback from the industry and fine-tuning our policies/schemes to attract more and more investments in this crucial sector. We have already approved 75 proposals under M-SIPS, 10 under EMCs and 16 Daughter Funds under EDF.

Q: In order to further these initiatives, the government has provided for the Duty Differential Scheme on certain IT products. What influence is it going to have on the domestic manufacturing of these products?

A: The differential excise duty dispensation to promote mobile handset manufacturing in India was instituted in the Budget 2015-16. The strategy received an overwhelming response and mobile handset production has reached an approximate value of Rs. 54,000 crores in 2015-16, compared to Rs. 18,900 crores in 2014-15.
All major brands (both foreign and Indian) are either setting up their own manufacturing facilities or are sub-contracting the manufacturing to Electronics Manufacturing Services (EMS) companies operating in India. More than 30 new manufacturing units have already come up during 2015-2016, providing direct employment to approximately 40,000 people. Considering the unprecedented growth witnessed in mobile handsets during the past year, the government has extended the differential excise duty dispensation to the CPEs (viz., Routers, Broadband Modems, Set Top Boxes, CCTV Cameras, NVRs/DVRs) and we expect India to become a global manufacturing hub for CPEs - their parts, components and accessories, in the years to come.

Q: Has the policy been successful in attracting R&D and new innovators in the ESDM sector?
A: High value addition in electronic products is largely due to Intellectual Property (IP) creation. India already has a strong contract R&D base. In fact, latest trends indicate that India is the most attractive destination for R&D, ahead of even USA and China. This validates our inherent capacity to conduct R&D and generate IP. We intend to provide entrepreneurs and innovators with easier access to resources; which includes easier access to capital, stable and favourable policy regime. As part of our efforts in this direction, we have launched the Electronics Development Fund to enable young entrepreneurs to initiate technology startup companies for technologies developed by them. We have also created several Incubation Centres, Centres of Excellence and Electropreneur parks in diverse areas of Electronics. Our scientific societies (C-DAC, SAMEER and C-MET) are promoting scientific and technological research in India. We are constantly engaging with BIRAC and GITA. The successful development and implementation of an indigenous Conditional Access System is one such step in that direction. Innovation is the key differentiator that will help us capture markets of the future and strengthen our position in the world. At this juncture, I want to give a message to our friends in the industry that, “today the demand for ‘the next best thing’ is so high, that you have to innovate to compete”.

Q: Besides mobile phones, what are the other major announcements in the manufacturing sector that are worth mentioning?
A: Besides mobile phones, interest has been received to set up a fabrication unit for display panels. Also, interest has been rekindled in the solar sector, as many applications have been received for the manufacturing of Wafers, Solar Cells and Modules under M-SIPS. On account of rationalisation of tariff structure, the production of LCD/LED TVs has reached Rs.21,000 crores in 2015-16, as against Rs.16,200 crores in 2014-15 and that of Light Emitting Diodes (LED) products has reached Rs.3,590 crores in 2015-16, as against Rs.2,172 crores in 2014-15.

Q: Do you see a remarkable increase in the availability of components in the domestic market and has there been necessary development of the ecosystem, for electronics and IT manufacturing? What are the road blocks you see adversely impacting the growth of domestic manufacturing?
A: We have received several applications for setting up new units/ expansion of capacity/ modernisation of existing units, in the area of electronic components, particularly, printed circuit boards under the M-SIPS scheme. Several Electronics Manufacturing Clusters are coming up. The rationalisation of tariff structure and differential excise duty dispensation is expected to give a fillip to the manufacturing of several electronic goods, leading to a spurt in the demand for components, which will eventually lead to increased investments in electronic component manufacturing in the country. We have already laid down a phased manufacturing roadmap for increasing domestic value addition in the manufacturing of mobile handsets. In Budget 2016-17, the excise duty differential has been extended to the following components/accessory of mobile handsets: (i) Charger / Adapter, (ii) Battery and (iii) Wired Headsets. This differential excise duty dispensation is proposed to be extended to Mechanics in 2017; thereafter to Printed Circuit Board Assembly (PCBA), Electro-Mechanics and Camera Module in 2018; and finally to Display Module in 2019. Components manufacturing is usually the last stage of the electronics manufacturing ecosystem and we will see a steady move in that direction.
Mr. Nitin Kunkolienker, Vice President, MAIT & Vice President, Smartlink Network Systems

Q. Has the National Policy on electronics and initiatives like Make in India, Digital India and Smart Cities been successful in attracting a substantial increase in the number of manufacturers in India?
A: In my opinion, these initiatives by the Government of India have helped develop a lot of enthusiasm among Indian manufacturers. The fact that the government has already received investment proposals of over Rs.1,10,000 crores, speaks of the success and interest among investors.

Q: In order to further these initiatives, the government has provided for the Duty Differential Scheme on certain IT products. What influence is it going to have on the domestic manufacturing of these products?
A: Before the announcement of the scheme, although Indian manufacturers had the manufacturing capacity, they were under-utilised on account of adverse duty structure on manufactured goods. Trading made more sense and many manufacturers either curtailed their manufacturing operations or turned towards trading. With incentives now being extended on certain IT products, manufacturers of CPEs can expect growth in manufacturing. In fact, in the second half of this financial year, manufacturing facilities are expected to work at full capacity, as manufacturers will take some time to setup their manufacturing facilities.

Moreover, with initiatives like Digital India and the Smart Cities concept gaining momentum, the requirement of CPE products like routers, modems and networking switches will be in great demand. Demand coupled with the duty differential scheme extended to these products, will result in the increase in domestic manufacturing.

Q: Do you see a remarkable increase in the availability of components in the domestic market and has there been necessary development of the ecosystem, for electronics and IT manufacturing? What are the road blocks you see adversely impacting the growth of domestic manufacturing?
A: As stated above, the government has already received investment proposals and this will certainly result in significant growth of the component industry as well. India has the capacity and capability to build the component industry.

In my opinion, to address the immediate requirement, component trading hubs/warehouses need to be established. This proposal has been already put forward to the government by MAIT. The road blocks I see are at the field level by the enforcement agencies - Customs, Excise, Income Tax etc. The knowledge possessed by the field officers is found wanting, and this is the primary reason for road blocks. Ease of doing business needs to begin with officers at the field level.

Q: Has the policy been successful in attracting R & D and new innovators in the ESDM sector?
A: Slowly but surely, yes.

Q: Besides mobile phones, what are the other major announcements in manufacturing that are worth mentioning?
A: All CPE goods like routers, modems, set top boxes for television and internet access, surveillance cameras, along with the DVRs & NVRs will now be manufactured in India. The domestic manufacturing for all these products has already started showing growth, with an increase in import of components required for the manufacturing of these products.

Mr. Vinod Sharma, Managing Director, Deki Electronics Ltd.

Q: Has the National Policy on Electronics and initiatives like Make in India, Digital India and Smart Cities been successful in attracting a substantial increase in the number of manufacturers in India?
A: The increase in investments has been reasonable, given the fact that we are a zero duty sector; wherein imports are freely permitted at zero import duties and in some cases even at zero duties (including CVD and SAD). This is significant as every manufacturer of electronic products and components has a choice - to continue to access the Indian market through exports to India or make a strategic decision to invest in India. The numbers for products and EMS are looking good - especially in areas such as mobile phones.
The investments in value added manufacturing - piece parts and components, have been below expectation. We have to review the incentives offered for these capital intensive projects. For instance, semiconductors have been a non-starter - again. While the jury is still out on the strategic need to have ‘fabs’ in India, this is the second time that we have been unable to attract investments, in spite of unprecedented efforts.

Q: In order to further these initiatives, the government has provided for the Duty Differential Scheme on certain IT products. What influence is it going to have on the domestic manufacturing of these products?
A: The differential duty of 10.5 percent has had the desired impact in terms of attracting investments in the assembly of cell phones. This is a good, welcome start. The challenge however, is to extend this differential to the downstream value chain, so that more value added manufacturing is encouraged, without reversing the assembly initiatives. Having said this, ‘differential duty’ is a disruptive indirect tax policy – one, that in my personal opinion is not sustainable across the value chain. Its efficacy in the GST regime needs to be examined. Our suggestion is that, in addition to the differential duty being used to encourage equipment assembly and manufacturing, a production incentive - proportionate to its value addition should also be given for component manufacturing and EMS companies.

Q: Do you see a remarkable increase in the availability of components in the domestic market and has there been necessary development of the ecosystem, for electronics and IT manufacturing? What are the road blocks you see adversely impacting the growth of domestic manufacturing?
A: This is the piece of the puzzle that refuses to fit in. Attracting large investments in a capital intensive (Capital: Turnover ratios as low as 1:1), technology and skill intensive area such as component manufacturing, in a zero duty environment has not been successfully done anywhere. The current hubs of component manufacturing were established close to their customers, as clusters in a low cost capital environment. A specific component policy is required to address the viability gaps and make this sub sector attractive.

Q: Has the policy been successful in attracting R & D and new innovators in the ESDM sector?
A: No, we have a lot to do in the area of innovation. Examples of successful innovative ‘Indian’ products are not too many. Even in those few examples, the government procurement has not played the ‘encouragement through patronage’ role effectively.

Q: Besides mobile phones, what are the other major announcements in manufacturing that are worth mentioning?
A: LED lighting through EESL aggregation has been another positive development.
In today's world, it is impossible to imagine someone without computers. In fact, they have become an integral part of most of our lives, and this holds true for individuals of every age. Computers also play an important role in the day-to-day businesses of people because of the efficiency and productivity that they bring in. And this is driving more and more people towards the strength of creation – of information and ideas, which is best complemented by the digital transformation that is closer to reality today, than it was a decade ago.

Each year passes by with increasing technology adoption and a consumer 'control' that demands brands to innovate and initiate relevant conversations. However, you also need to re-engage on subjects that remain consistent to everyday life. Now, how does one sustain 'excitement,' if one is being laden with multi-screen phenomena and promising alternatives? The answer is simple - one evaluates the real need: the real needs of the users, the communities they are a part of, the ripple effect of their thinking, their work style and the objectives that they wish to achieve, and this is where the need for a companion becomes very evident; a companion that will be by your side throughout your journey – a companion called the Personal Computer (PC). It is the most understated device amongst all devices that have been introduced in the recent past, and yet, the most important and impactful of devices.

Most of us who have grown up studying in Indian schools and colleges in the last few decades, have followed a deeply rooted concept that textbooks are the primary source of information for students. That has now changed. Enlightened students, youth and parents alike, are actively exploring the concept of self-learning and growing, through the exposure to technology, with the PC being at the center of this growth process. Technology today enables experiential learning rather than rote learning and it is at this stage that the All-in-One (AIO) PC may be befriended. The AIO makes for the perfect family device, given its screen size and portability, which means it can be moved around according to the user's convenience.

Business professionals and first time workers are also waking up to the need for powerful, yet portable devices. The 2-in-1 form factor, came into being to cater to this segment. There is a need for modern professionals to become more productive while on-the-go. A device that can adapt to their needs as per the situation is highly sought after.

If we look at the bigger picture, India today can be safely christened as a ‘Millennial’s India’. We are a country that is full of hope and have a high dependence on our future workforce that consists of millions of young, skilled and enthusiastic people. Digital transformation is the need of the hour and to this millennial generation, it is no more a question of why they may need a PC, but when and what type. These people are armed with ambitions that will naturally fuel the fire that India needs to establish itself as the world’s fastest growing economy. Unleashing their potential through content creation is true digital transformation, and that will be the engine for growth of the digital economy. The pace is increasing and it is now a matter of making the PC available and equipping our youth in becoming ‘future-ready’.
It is time to start extending the reach of PCs into smaller towns. Increasing PC penetration also means contributing to the country’s economy and bringing its people up to speed with other developed nations of the world. PCs have the ability to expand opportunities, reduce the rural-urban divide and support innovation and trade. Increased digital literacy, greater awareness of the internet medium and availability of feature-rich PCs at affordable prices will be able to establish India as a rapidly growing economy.

Creation lies at the core of our knowledge economy, and the current generation is waking up to the importance and value of using a PC. However, this alone may not necessarily increase the PC penetration. It also calls for engagement from the Government, where the primary objective will be to propagate PCs as a skill tool, to help hone the skills that the industry is demanding of them. Industry bodies are also working together using their core strengths to:

- **Build awareness** on what a PC can do
- **Ensure availability and affordability** of PCs even in smaller towns
- **Improve accessibility** of internet and bandwidth by joining hands with, for e.g. telecom/ broadband companies.

India is well poised to step into a liberated and enlightened future. However, the need of the hour is change of mindsets. As a young India creates and contributes to a knowledge driven economy, the PC will serve as its primary technology companion. A step beyond policy decisions and government initiatives will help build a robust and tech savvy workforce in different parts of the country; a workforce that will have a propensity to adapt to changing technology.
MAIT organised a National Workshop on Intellectual Property Rights (IPR) at The Lalit, Mumbai on April 26, 2016. The workshop was targeted at small enterprises to help them assimilate the entire process from ideation & product development to commercialisation, while protecting their IP from misuse.

Mr. Vinit Goenka, Member, IT Taskforce, Ministry of Shipping, Road Transport & Highways said that the new war would be a fight with regard to Digital Colonisation as even a small product like a mobile phone had more than 90 IPs. Hence, companies across the world would want to get control through IP. Citing statistics, he shared that on the Global Innovation Index, India ranked 81 – a surprising position for a country with global innovators. Going forward, India would need to focus more on R&D.

Other speakers at the event included Mr. Abhishek Pandurangi - Partner, Khurana & Khurana Advocates and IP Attorneys; Mr. Siddharth Khanna - Manager Operation (IPR), CPA Global; Mr. Priyank Gupta - Partner & Patent Attorney, StratJuris Partners and Mr Kiran Bettadapur - Advocate.

A panel discussion on how start-ups and small companies should decide and choose IP consultants/attorneys was conducted.

MAIT held its 33rd Annual General Meeting on July 7, 2016 at The Imperial, New Delhi. Mr. Anwar Shirpurwala, Executive Director, MAIT, welcomed members and took them through all that was achieved over the past year. He highlighted some of the key advocacy initiatives carried out, that have ensured MAIT’s position as a thought leader within the industry. Targeted activities in areas such as manufacturing and taxation, good practices under IT procurement reforms, e-Waste rules and plastic rules, standards and compliances, Digital India initiatives and MAIT’s successful flagship event - IT Asia, have all increased state outreach and visibility for the association. MAIT’s Focus Groups have been working relentlessly on many policy initiatives such as Ease of Doing Business (EODB), Make in India, Design in India, e-Waste and CRO.

Ms. Debjani Ghosh, President, MAIT, thanked the MAIT secretariat for all that has been achieved and congratulated them on their success. Mr. Nitin Kunkolienker, Vice President, MAIT, highlighted the fact that MAIT has been able to streamline internal processes and strengthen their financials significantly. Mr. P Krishnakumar, Vice President, MAIT, stated that MAIT’s Focus Groups can go a long way in transforming MAIT’s policy advocacy work.
SENSITISATION WORKSHOPS ON GOOD PROCUREMENT PRACTICES FOR IT

(Madhya Pradesh – April 23, 2016
Maharashtra – May 06, 2016
Himachal Pradesh – June 24, 2016)

Background and Objective of the Workshops
The issues in the current procurement procedures of the government have led to below par success rate of projects, mainly the ones that were orchestrated through e-governance. MAIT’s mandate under this initiative has been to enable the procurement of appropriate and optimally priced IT services and products, within a short turnaround time. Against this backdrop, MAIT organised Sensitisation Workshops on Good Procurement Practices for IT, in Madhya Pradesh, Maharashtra and Himachal Pradesh, wherein more than 100 senior officials from the government departments dealing in procurement matters, attended and gained insights and knowledge on the best practices being followed in the IT industry. The event provided a platform to enhance the procurement capabilities, skills and standards and overcome the bottlenecks in implementing e-Governance or other similar projects in the State.

Knowledge Partner: Accenture

Supported by: BSA, HP, The Software Alliance

Madhya Pradesh
Shri. L.K. Tiwari, Chief General Manager, MP State Electronics Development Corporation Ltd. and other senior government officials from following departments attended the event: SeMT, State IT Centre, PeMT, Home Dept., MPRDC, GAD-IPS, Archaeology Dept., Handlooms Dept., Directorate of Industry, MP Hastshilp, DES (Pln., Eco. Stat), MPWED, MPPWD, MAPITMPSEDC, CTDI/SC/ST/OBC, PWD and Dept. of Food

Maharashtra
Shri. Muthukrishnan Sankarnarayanan, Director-IT, Dept. of IT, Government of Maharashtra and other senior government officials from the following departments attended the event:

Himachal Pradesh

Shri. Sandeep Kumar, Director, Department of Information Technology, Government of Himachal Pradesh and other senior government officials from following departments attended the event:

EXECUTIVE COUNCIL MEMBERS: 2016-18
ELECTED MEMBERS

Mr. Sanjay Virnave
Country Manager – Relationship Business
Acer India (Pvt) Ltd.
Sanjay is currently the Country Manager- Relationship Business & CSO at Acer India. He has over 25 years of experience in the IT Hardware and Services Industry with some exposure in Telecom as well. He is equipped with a strong domestic and International business exposure and expertise in Enterprise business development.

Mr. Harish Krishnan
Executive Director - Public Affairs & Strategy
Cisco Systems India Pvt. Ltd.
Harish leads Cisco's strategic engagement with National and State Governments of India on a wide range of policy issues that concerns Cisco in India - as an investor, a globalisation hub, a seller and as a corporate citizen.

Mr. Vikram Manchanda
Head – Public Sector
Amazon Seller Services Pvt. Ltd.
Vikram is the Head of India Public Sector, that includes Government, Education and Non-Profit segments at Amazon Seller Services Pvt. Ltd. He is responsible for Strategy and Business Development for use of Cloud Computing by Public Sector customers. Prior to his current role, Vikram was Director Cloud Services at Microsoft, where he spent 10 years in various roles.

Mr. P. Krishnakumar
Vice President, Consumer & SB Dell India Pvt. Ltd.
KK is the driving force behind Dell's sales and business strategy for the consumer and small business segment in India. In his role as head of the CSB business in India, KK is focused on deepening PC awareness and adoption through online and offline customer engagement.

Mr. Ambrish Bakaya
Director - Corporate Affairs
Hewlett Packard Enterprise India Pvt. Ltd.
Ambrish manages HP's Corporate Affairs function, which is responsible for shaping public policy and building strategic relationships with governments, international funding institutions and non-governmental organisations.

Mr. Anuj Aggarwal
VP-Finance, Legal, Taxation & Corp. Planning
Canon India Pvt. Ltd.
Anuj has been Vice President - Finance with Canon India since 2007. He joined Canon India as CFO and got the additional responsibility of Corporate Planning in 2015. Anuj has been an integral part of Canon India in its growth story, for almost a decade.
Rishi has over 25 years of work experience in the area of business management across IT & Consumer Electronics industries in India as well as the Asia Pacific region.

Girish has over 20 years of experience in the Consumer and Enterprise space with leading MNC brands. He joined LG in 2015 to head government projects, OEM business and new business development in the PC, Monitor and DS division of LG Electronics India Limited. He has been representing LG in various MAIT and B2G fora.

Vivek has 22 years of well-rounded professional experience in ICT domain, wherein he has managed Business Development, Sales & Marketing, Strategic Planning, Government and Regulatory Affairs (Corporate Affairs, Government Relations & Public Policy) as his key functional areas, at different stages of his career.

Debjani Ghosh is Vice President, Sales and Marketing Group and Managing Director for South Asia at Intel Corporation. Based in India, she is responsible for establishing new growth areas for Intel in Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. She works with governments and industry in these countries to establish policies and initiatives that help accelerate the adoption of technology in the region, especially as an enabler of inclusive growth and development.

Bikas has been a public policy and government affairs professional for around 20 years. He has had stints in FICCI, the Danish Embassy and Carlsberg before assuming the role of Head - Govt. Affairs for Lenovo India & South Asia.

Parag is Vice President, Government Affairs, India and South Asia at Qualcomm and has been the company's key regulatory and policy interface for the Indian subcontinent and the region since January 2005.
Manu is a strategy & corporate affairs professional with over three decades of experience in Reputation & Brand management, Corporate Communications, Corporate Social Responsibility, Crisis Management, Government Affairs, Acquisition Communications and Business Strategy. He has worked closely on business incubations & start-up ventures to reach Global Destinations.

Nitin is Director-Corporate Affairs, Smartlink Network Systems Ltd – one of India’s topmost companies in the field of Computer Networking and Information Technology. He is Vice President, MAIT and has immensely contributed to the growth & development of the Association.

Rahul Gupta has been associated with the IT Industry for more than 35 years. Rahul Gupta started his IT career with DCM Data Products in the year 1980. He re-located to the Middle East in 1990 and worked for Acer as General Manager before he moved back to India in 2002 to set up a company for Acer group in India. He later established his own company, M/s. Smile Security and Surveillance Pvt. Ltd. (SSSPL) in 2007, conceived the brands AnexGATE and AnexSECURE and promotes them to varied industry verticals.

Sanjay is developing, driving and implementing business strategies and solutions for Toshiba India DS division to maximise its business growth. Previously, he served as Director, East Zone at Vodafone India Limited.

Mr. Manu Kapoor
Vice President- Strategy & Corp Affairs(SWA)
Samsung India Electronics Pvt. Ltd.

Mr. Nitin Kunkolienker
Director – Corporate Affairs
Smartlink Network Systems Ltd.

Mr. Rahul Gupta
Managing Director
Smile Security & Surveillance Pvt. Ltd.

Mr. Sanjay Warke
Country Head
Toshiba India Pvt. Ltd.

Mr. Thomas Fuhrmann
Managing Director
TÜV Rheinland India Pvt. Ltd.
The State of Madhya Pradesh is centrally located and is often referred to as the ‘Heart of India’. The State is home to a rich cultural heritage and has innumerable monuments, spectacular mountain ranges, meandering rivers and miles and miles of dense forests. Today, Madhya Pradesh is increasingly positioning itself as a destination for IT & Electronic Manufacturing.

**Why Madhya Pradesh:**
- Strong economy
- Robust industrial infrastructure
- Strategic location
- Excellent connectivity
- Rich natural resource base
- Educated & skilled talent pool available at low cost
- Availability of uninterrupted power supply (24X7)
- MP is an energy surplus state
- Industry friendly policy
- Peaceful state with NO labour unrest
- Easy availability of land at affordable prices

**Futuristic policies & initiatives have been set in place so as to invite investments:**
These include the IT Investment Policy 2012 (Amended in 2014), BPO/BPM Policy 2014, Analog FAB Policy 2015, IT Parks – Indore/Bhopal/Gwalior/Jabalpur – State led approach, SEZ – Crystal IT Park, TCS, Infosys, Impetus and Electronic Manufacturing Clusters (EMCs) - Brownfield notified at Bhopal and Jabalpur. MP also has prestigious institutions like IIIT Bhopal, NLUI, IIITM Gwalior, Judicial Academy, IIFM, IIM Indore and many more in the state. The country’s first Data Centre Park has been established at Indore, Madhya Pradesh.

**Madhya Pradesh Policy Initiatives for IT and Electronics Industry:**
- IT Investment Policy (amended) 2014 in place
- Single window clearance system
- 5% subsidy on interest
- 25% capital investment subsidy for new units
- 50% subsidy on stall rentals for participating in IT events
- 75% rebate on the cost of land
- IT investment promotion assistance – refund of VAT & CST
- Stamp duty concessions
- Reimbursement on skill gap training up to 50% of the cost
- Industry friendly policy for captive power generation and usage
- Benefit on entry tax
- Facilities on expansion & modernisation
- Telecom subsidy up to 50%
- Rent subsidy up to 75%
- Marketing assistance
IT Park, Bhopal
- Construction/Development –
  - Site Development – Rs. 125 Crores.
  - Building – Rs. 30 Crores.
  - EMC – Rs. 30.92 Crores.
  - Calibration Lab
  - Trade Pavilion
- Land allotted to 29 Companies.
- Building construction - completed 1 Lakh Sq.ft. with one basement & 4 floors of office space.
- Land development 60% completed.

IT Park, Indore
- Construction/Development -
  - Site development – Rs. 95 Crores
  - Building – Rs. 25 Crores and Approx. 1,00,000 Sq.ft.
  - Approach Road – Rs. 6.56 Crores.
- Land allotted to 14 Companies.
- Construction of additional 130,000 sq.ft. at a cost of Rs. 47 Crores. Building has two floors of basement parking & 6 floors of office space.
- Existing area occupied by CSC, Samraddhi Associates, STPI & TCL.

IT Park, Jabalpur
- Available Land
  - Gadheri – 19 acres
  - Purva- 60 acres (40 acres planned for EMC).
- Purva Project Cost – Rs. 62 Crores including site development & building.
- EMC - Rs. 28.51 Crores.
- Land allotted to 11 Companies.
- Building – Approx. 1,00,000 Sq.ft.

IT Park, Gwalior
- Built up space – 90000 Sq.ft.
- State-of-the-art building suitable for IT industry with power backup facility.
- Available Land -
  - Sewage Farm – opposite IIITM – 98 acres.
  - Manpur Gird – 20 acres (IT Park Building)
  - Ganga Malanpur – 29 acres (STPI incubation centre)
- EMC planned in 90 acres of land at Sewage Farm.
- STPI incubation centre operational at Ganga Malanpur.

EMC Purva-Jabalpur
- EMC Area 40 Acres
- Project Cost Rs. 38.01 Crores
- Implementation Period 2.25 Years
- Proposed Investments in the EMC Rs. 110 Crores
- Proposed Employment Direct 1365
- Good Rail, Road & Air Connectivity. ICD-Inland Container Depot is situated at Nagpur (Maharashtra), Distance 270 Km.
- Specific focus on Set Top box & accessories, Solar Modules, LED Lighting, CCTV Cameras, Medical Electronics, Control Penal, Mobile Charger, USB etc.

MP is also the first state to announce an “Analog Semiconductor Fabrication, 'F&B', Investment Policy,2015,” where up to 75 acres of land will be provided free of cost on a 50 year renewable lease.

In addition there are Electronics Manufacturing Clusters (EMCs) in Jabalpur & Bhopal and a Printed Circuit Board (PCB) Cluster. Land will be allotted on a first come first serve basis, and rates will be decided by the developer on the basis of plot size and the nature of the project.

EMC Badwai-Bhopal
- EMC Area 50 Acres
- Project Cost Rs. 46.16 Crores
- Implementation Period 2.25 Years
- Proposed Investments in the EMC Rs. 260 Crores
- Proposed Employment Direct 3000
- Location of the land – Village Badwai, adjacent to Rajiv Gandhi Technical University, Bhopal.
- Distance from Bhopal International Airport – 3 Km.
- Excellent Rail, Road & Air Connectivity. ICD-Inland Container Depot is situated at Mandideep, Raisen distt. Distance 40 Km.
- Specific focus on Set Top box & accessories, Solar Modules, LED Lighting, etc.

The MP State Data Centre has been set up to extend IT related services by maximising IT performance through reliable hosting, managing IT risk and providing continuous support to the state government organisations. The MP State Wide Area network (MPSWAN) is a core infrastructure project under NeGP of GoI & GoMP, set up to provide connectivity up to block level, having a converged network with an integration of voice, data & video. MPMobile is a new platform of the state, that brings together various G2C services offered by several departments / agencies / corporations / and universities of the Govt. of Madhya Pradesh, along with B2C services and makes it available at the convenience of the citizen's fingertips. MPOnline Limited was formed in 2006, with a vision to empower citizens and enhance e-governance by ensuring that all government services are accessible to the common man - through common service delivery outlets in his locality - ensuring efficiency, transparency & reliability of such services at an affordable cost.
The **MP State E-Mail Facility & E-Mail Policy** has been formed by the GoMP and aims to fulfill the vision of the GoI, in becoming a part of the electronic era and by giving legal status to all official emails. The **MP Centre of Excellence (CoE)** is a team or a shared facility or an entity that provides leadership, best practices, research, support and/or training for a focus area. The COE is handling 70+ different IT Projects for different State Govt. departments/organisations/undertakings. In order to realise the full potential of Aadhaar, the Government of Madhya Pradesh has established the **State Resident Data Hub (SRDH)**, for which MPSEDC is the nodal agency. It contains the Aadhaar numbers (including demographic and photographic data) of residents of MP who have provided sharing consent during the time of Aadhaar enrollment. The SRDH will help in better and effective service delivery to citizens, by uniquely identifying the beneficiaries. These include; the Aadhaar authentication and electronic Know Your Citizen (eKYC) services, Aadhaar seeding utility, SRDH search facility, business intelligence dashboard for monitoring and planning and the analytical reports for departments.

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**CONGRATULATIONS**

**Mrs. Aruna Sundarajan**, appointed as Secretary, Ministry of Electronics & Information Technology. She is a 1982 batch IAS officer of Kerala cadre. Earlier, she was Secretary, Ministry of Steel.

**Mrs. M Sathiavathy**, appointed as Secretary, Ministry of Labour & Employment. She is a 1982 batch IAS officer of AGMUT cadre.

**Shri. Amarjeet Sinha**, appointed as Secretary, Ministry of Rural Development. He is a 1983 batch IAS officer of Bihar cadre.

**Shri. C.K. Mishra**, appointed as Secretary, Ministry of Health & Family Welfare. He is a 1983 batch IAS officer of Bihar cadre.
Broad Introduction

The production of electric and electronic equipment (EEE) is one of the fastest growing areas in manufacturing industries across the world. This development has resulted in a tremendous increase of waste electric and electronic equipment (WEEE). e-Waste is diverse and complex, in terms of material and component makeup, as well as the original equipment manufacturer’s manufacturing processes. Characterisation of this waste stream, is of immense importance in order to develop a cost-effective and environmentally friendly recycling system.

In view of the environmental problems involved in the management of e-Waste, many countries and organisations have drafted legislations to improve the reuse, recycling and other forms of recovery of such waste, so as to reduce disposal through landfills.

Recycling of e-Waste is an important subject, not only from the point of waste treatment but also from the recovery of valuable materials. With this in mind, we should establish effective recycling management programs and cost-effective recycling techniques; to be operated successfully through a shared-responsibility scheme.

In addition to collection and management challenges, emphasis must be laid on recycling technologies of e-Waste. e-Waste is non-homogeneous and complex in terms of materials and components. It consists of a large number of components of various sizes and shapes, some of which contain hazardous components that need to be removed for separate treatment. A primary concern in managing large quantities of e-Waste is that they contain hazardous materials — lead and other heavy metals — that can be released into the environment during disposal with potential adverse effects on human health. With this concern, the EU Restriction of Hazardous Substances Directive (RoHS) 2002/95/EC took effect on 1st July 2006, and became the law in each member state. This directive restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. It is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE) 2002/96/EC which sets collection, recycling and recovery targets for electrical goods and is part of a legislative initiative to solve the problem of huge amounts of toxic electronic waste.

While e-Waste has hazardous characteristics, it also poses great value in some of its materials such as gold (Au), silver (Ag), copper (Cu), palladium (Pd), and plastics. The recovery of precious metals is the main economic driving force for recycling of electronic scraps. About one-third of the precious metals recovered from electronic scrap is gold, as electronic scrap contains more than 40 times the concentration of gold contained in gold ores. Early generation PCs used to contain up to 4 g of gold each; however this has decreased to about 1 g today. The value of ordinary metals contained in e-Waste is also very high.
Indian Context


Major requirements in this new rule are stated as below:

- Centralisation of application for authorisation of e-Waste producers to Central Pollution Control Board. Application must also include a history of the past 10 years of products placed in the market.
- Requires all producers to include a respective EPR plan on a collection target of 30 percent for the first 2 years of implementation. This will eventually increase to 70 percent from 7th year onwards. The full responsibility of the collection target is imposed on producers. There is no clarity on the calculation of the target, in terms of quantity or weight and the average lifespan of each product category.

Authorities have also suggested a Deposit Refund Scheme, although this is not mandatory.

IT Ownership and Disposal behaviour:

Recycling Practices

An estimated three lakh thirty thousand metric tonnes of e-Waste is generated in India, while an additional fifty thousand tonnes is imported. Although the Foreign Trade Policy (FTP) of India does not permit the import of electronic waste, it finds its way in through false declaration. Of the total e-Waste, only about 40 percent finds its way into the recycling stream, while the balance 60 percent remain in warehouses/storehouses, due to an inefficient collection system. A significant proportion of the waste that finds its way into the recycling stream, especially televisions and mobile handsets, are refurbished and resold. Only about nineteen thousand tonnes, representing just five percent of the total e-Waste is processed in the country.

A funnel approach was used for accuracy and better understanding of the e-Waste production in India. E-Waste has been estimated at three levels:

- Annual e-Waste generated: IT and electronic products that have reached end of life - it includes items that get stacked inside warehouses/store rooms, those that are not sold to consumers because of inappropriate resale value, and those that are used for lower level application, etc. This was estimated by applying input and obsolescence method.
- e-Waste available for recycling: Electronics products that have been exchanged or sold by their owners - a significant proportion of these products get refurbished, and are re-used or relocated to smaller towns or villages. The quantity of e-Waste available for recycling was estimated on the basis of inputs from expert interviews and channel member insights, along with validation through the primary survey.
- e-Waste processed: Disposed electronic waste that is processed - typically includes the broken down parts and components. This was estimated based on interviews with formal and informal recyclers across India.

Industry Standpoint

According to the new rules, the collection target is set at 30 percent for the initial two years. However, considering the nascent stage and haphazard manner of e-Waste collection and recycling ecosystem in India, it is definitely a challenging target, despite best efforts from the industry and the government.

The new rules should allow for a process in which targets would be set in consultation with the industry, based on a scientific methodology that incorporates international best practices and contextualises Indian conditions. The methodology and targets should be set out later through government notification, rather than being codified in the rules, as this will have to be reissued every time the target is revised.

Overly high collection targets could lead to premature collection of fully functional equipment as ‘e-Waste’. Continued use of high-residual life equipment and their spare parts can reduce the generation of e-Waste, conserve material resources and expand global access to beneficial information and communications technology.

Above all, the presence of a strong informal sector creates a leakage in the system, which is inordinately higher than legitimate recycling programs in the country. The informal sector, which handles 90 percent of India’s total e-Waste, is not under the ambit of the rules. It is not justified to make the industry responsible for 50 percent of the total e-Waste collection, considering that a mere 10 percent of the total e-Waste is handled by the formal sector. Unless there are stern measures taken to contain this leakage by strict enforcement of rules on informal recycling, no amount of targets on producers will be attainable. The consumer behavior, driven by poor awareness on e-Waste in general and an inherent desire to maximise returns, also favours the informal sector.
MAIT congratulates the Government of India (GoI) for launching Digital India – an initiative that aims to transform India into a digitally empowered society and knowledge economy. MAIT and its members wish to highlight some challenges that adversely impact the IT industry’s performance and investment sentiment. It is critical, that these challenges are looked into by the relevant government policy planners, makers and implementers, at the earliest.

1. Need for a progressive approach in government policies and economic reforms

The industry expects greater focus on policies that foster industry development, based on improving competitiveness in skills, innovation, R&D, capacity building etc., through fiscal benefits and global collaboration.

The scope of regressive, protectionist measures like mandatory conditions of value addition, as prescribed under preferential market access and the National Offset Policy should not be expanded as they limit access to global technologies at competitive prices. Regressive policies on mandating data localisation and restricting data flow across borders, should also be discouraged. The industry urges the GoI to look at ways and means to incentivise organisations that invest in data centres in India, rather than penalise ones who uphold cross border flows. (ECIPE studies indicate that restrictive practices on data flow adversely impacts the country’s GDP upto 0.8%).

2. Need to enhance ‘Ease of doing Business in India’

Inward-looking protectionist measures, lack of global harmonisation, regressive regulatory requirements, irrational compliance needs; all add to the list of barriers in conducting business. The ‘ease of doing business index’ has not improved for the IT industry.

Drawing on Global Best Practice

In 2002, the EU WEEE Directive promulgated that “by 31st December 2006, at the latest, a rate of separate collection of at least four kilograms on average per inhabitant per year of WEEE from private households is achieved.” A decade later, the EU WEEE Recast adjusted the collection date to 2016, giving the ecosystem four years to prepare for the increased target.

In the absence of qualified recyclers and mature recycling technologies, we strongly encourage India to lower the unrealistically high collection target and adjust the target accordingly year after year, based on implementation experience. The steady and robust approach taken by the EU, sets a good example of effective WEEE policy making and implementation.

In our experience a WEEE System poised for success must have the critical elements listed below and the current rules must embrace these:

- e-Waste management must be a shared responsibility: where all stakeholders have to play their role for the entire system to take off. Producers alone cannot influence or control the entire value chain.

- A robust reporting structure (annual returns): to generate e-Waste arising and recycling information, published annually to form a strong baseline data.

- Adopting a national level recycling standard: to avoid mushrooming of recyclers. Rules should provide a mechanism for overseeing a recycler approval process, and make it mandatory that all approved recycling facilities operate to the global environmental, health and safety standards.

- Unless there is strong enforcement of the Rules, informal recycling will continue to flourish, thereby creating a perception that the Rules are not effective.

Conclusion

Going forward, dealing with waste electronic and electrical equipment has to be a shared responsibility, with an obligation for all stakeholders to meet a collective national target. Without the industry and the government working closely together in good faith, both the industry and the government will pay a heavy price for a failed system.

2. Ease of Doing Business: Issues and Recommendations

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- Urgent need to streamline the unplanned rollout of IT Product safety- While compliance costs are prohibitively high, there are operational hurdles with respect to unrealistic timelines, tedious processes, unique labeling requirements, certificate/test validity periods and per factory testing requirements. The industry asks for the exclusion of Highly Specialised Equipment from scope; harmonisation of labeling requirements with global practices; harmonisation of validity period of test reports and certification; doing away with repetitive and unnecessary retesting of same products from different factories.
Do not restrict rightful imports.
- Supply chains for IT components are truly globalised, as on date the IT industry in India depends on Indian manufactured and globally sourced components. Today, the IT industry is facing severe consumer warranty issues as companies are not able to export, refurbish and import refurbished IT components such as motherboards, hard disks, microprocessors and other IT support related parts. As a result, consumers including the government and the corporates are facing inordinate delays in servicing of their IT products. Additionally, not allowing refurbished imports, leads to junking of repairable parts leading to increase in e-Waste.

Support Work Force Policy Reforms - A significant contributor to the success of the IT services exports sector, is the ease with which the IT/ITES sector is able to adopt the global delivery business models and adapt its workforce accordingly. This ease seems to be diminishing of late, due to attempts by the government to force fit archaic labor laws. If this continues, India risks losing its investment attractiveness to other countries. The IT industry in India assures commitment to employee welfare and requests that backward thinking laws are not imposed on employees of this sector.

3. Remove multiple entry barriers in public procurement policy

Members of the industry participate in various Tenders floated by PSU's and Nodal Agencies to implement Digital India and other e-Governance projects. Many terms and conditions in public Tenders are extremely onerous on the Bidders/ System Integrators (“SI”) and Original Equipment Manufacturers (“OEM”), which when coupled with the ‘zero deviation bid’ clause, either leads to a very high priced bid or non-participation by major SIs/OEMs.

We are also at a disadvantage as too much weightage is given to financial (L1) criteria. We recommend that QCBS (Quality and Cost Based Selection) criteria is used more frequently for bids where cutting-edge technological solutions are needed. This will ensure that the best IT solution providers participate in bids. Additionally, the IT industry supports the RFP standardisation process undertaken by DeitY, for establishing robust governance that ensures streamlined Tender processing.

Given below is a summary of key issues faced and recommendations for the same. The IT manufacturing sector is hopeful that the Public Procurement Bill will address these.

### Summary of Key Issues- Public Procurement

<table>
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<tr>
<th>S No.</th>
<th>Clause in Tenders</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>1.</td>
<td>No Deviation Bids</td>
<td>A more detailed and structured pre-bid exercise be conducted by the consultants of the Nodal Agencies, where terms and conditions are discussed with teams of bidders and valid concerns are addressed. Also, bidders should be allowed to provide their deviations to the Tender conditions, which should be discussed and agreed upon before the commercial bids are opened and the bidder is shortlisted.</td>
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<td>2.</td>
<td>Joint and Several Liability</td>
<td>As OEMs are providing commercially off the shelf (COTS) products and the contract for implementation is between the SI and the Purchaser, the OEM should not be held jointly and severally liable for the breach of contract by the SI.</td>
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<td>3.</td>
<td>Payment Terms</td>
<td>If payments for services are linked to milestones, they should be arranged in a manner which makes it commercially feasible for bidders, in terms of cash flow operations. Payment milestones for COTS products (HW/SW) may be kept separate.</td>
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<td>4.</td>
<td>Arbitration</td>
<td>An arbitrator should be appointed by mutual consent of both the parties.</td>
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<td>5.</td>
<td>Liability and Indemnities</td>
<td>Liability of the SI should be capped (10% of TCV) for all kinds of claims.</td>
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<td>6.</td>
<td>Blacklisting</td>
<td>Blacklisting as a consequence should be restricted to fundamental ethical issues namely fraud and bribing and not for breach of contract, for which remedies of EMD / PGB forfeiture, LDs and damages exist under the contract.</td>
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<td>7.</td>
<td>Scope Creep/Sweep Provisions</td>
<td>These are very onerous clauses which makes it impossible for a bidder to ascertain the commercial risk as well as submit a well-priced bid. It is always better for both parties to have an unambiguous scope.</td>
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<td>8.</td>
<td>Sharing of Source code/ Escrow</td>
<td>Such conditions must be done away with, as no large OEM can handover or share its proprietary IP. The concern of continuation of services could be addressed in multiple ways on a case-by-case basis.</td>
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<tr>
<td>9.</td>
<td>Termination</td>
<td>(a) At least 30 days cure period must be provided to cure the breach before termination, (b) SI should be paid for services and products properly rendered till the date of termination, (c) Termination for convenience should be only after a reasonable notice period (d) SI should be provided a right to terminate or suspend services, for unjustified non—payment by Purchaser.</td>
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MAIT organised an Accelerating Digital India Initiatives event on 7th July 2016, at The Imperial, New Delhi. Two report papers were released during the event: IoT for effective Disaster Management and Aadhaar – A framework for Citizen Centric Services. The papers were written with the active support of members. Shri. Kiren Rijiju, Hon’ble Minister of State for Home Affairs, Government of India, was the Chief Guest. Dr. V.K. Saraswat, Member, NITI Aayog was the guest of honour and Lt. Gen. (Retd) N.C. Marwah, National Disaster Management Authority was a Special Invitee.

The event started with a welcome address by Ms. Debjani Ghosh, President, MAIT. She stressed on the fact that MAIT helps bridge the gap between the government and the industry, so as to ensure the smooth implementation of the Digital India programme. She also highlighted the fact that the Digital India Action Group (DIAG) under MAIT, had already conducted workshops around IT procurement reforms in as many as 12 states that included: Kerala, Punjab, Haryana, Puducherry, Assam, Manipur, Meghalaya, Karnataka, Tamil Nadu, Madhya Pradesh, Maharashtra and Himachal Pradesh.

The first report paper ‘IoT for Effective Disaster Management’ is focused on Mission Mode Projects (MMPs) under the National e-Governance Plan (NeGP). It is based on the premise that nothing can prevent disasters, but proactive use of knowledge especially data analytics can help in reducing the impact. Through the paper on IoT, MAIT members want to start a dialogue with NDMA as to what steps are required for actual implementation of the findings.
A lot of MAIT members are working on solutions that are used in disaster management across the world, MAIT plans to create a solution showcase for the same.

The second report paper ‘Aadhaar – A framework for Citizen Centric Services’ looks at the gaps that need to be plugged, so that Aadhaar usage can be enhanced in government services. As IT companies, MAIT members are not just observers in the transformation but are part of the whole process. Success will depend on how far MAIT members partner, how well they customise and how far they can drive the change.

Shri. Kiren Rejiju, Minister of State, Ministry of Home Affairs, Government of India, congratulated MAIT on its efforts. He was particularly delighted with the choice of topics for the report papers and acknowledged that these initiatives complement the efforts of the Government, in successfully carrying forward the Digital India programme.

He said that while disasters cannot be prevented, the key lies in mitigating the disaster risk. India has a fantastic disaster management institutional mechanism in place. The Prime Minister recently launched the National Disaster Management Plan, which is the first ever national plan prepared in the country and the National Disaster Management Authority (NDMA) played a crucial role in the same. IoT will help immensely as dissemination of information is very important during a disaster. The Aadhaar paper, the Minister felt, is relevant as the Aadhaar implementation needs to be faster. Once every Indian citizen has an Aadhaar card, there will be a direct link between the government and every resident.

Dr. V. K. Sarswat, Member, NitiAayog reiterated that the Digital India initiative of the Government, is really pushing the points, from where we can leverage technology towards becoming an inclusive society.

Shri. R.K. Jain, Member Secretary, NDMA; Dr. Neena Pahuja, Director General, ERNET and Shri. Deb Deep Sengupta, Managing Director, SAP India, sent special messages for the paper on IoT for effective Disaster Management.

Shri. Nitin Kunkolienker, Vice President, MAIT proposed a vote of thanks at the event.
IoT for effective Disaster Management - Highlights

1. Background
   a. 57% of land in India is vulnerable to earthquakes. Of these, 12% is vulnerable to severe earthquakes.
   b. 68% of land is vulnerable to drought.
   c. 12% of land is vulnerable to floods.
   d. 8% of land is vulnerable to cyclones.

2. Agencies for Disaster Management in India
   a. Ministry of Home Affairs (Disaster Management Division)
   b. Other GOI Agencies - Indian Meteorological Department and ministries of defense, urban development, communications and information technology, health, petroleum, agriculture, power, environment and forests and food and civil supplies etc.
   c. NDMA headed by PM; SDMA headed by CM; DDMA headed by DM / DC
   d. National Emergency Operation Centres (NEOC)
   e. National Disaster Response Force (NDRF)
   f. National Institute of Disaster Management (NIDM)
   g. Civil Defense and Home Guards

3. It may not be possible to completely prevent all disasters, but the greater use of IoT can reduce the impact of disasters.

4. IoT can help in detecting various disasters like wild fires, tornadoes, earthquakes, cloudbursts and volcanic activities.

5. The power of real time information availability, together with real-time analytics associated with IoT, can definitely be a game changer in planning for prevention and response to disasters.

6. The importance of real time information management for effective preparation, planning, response and mitigation of disasters is understood by all. From that perspective, Internet of Things (IoT), as a technology domain can pave the way for a radical and pioneering approach to minimise loss to assets, and, most importantly, lives.

7. ICT initiatives in disaster Management
   a. India Disaster Resource Network
   b. GIS in Disaster Management - National Database for Emergency Management (NDEM)
   c. National Emergency Communication Plan, 2004

8. Internet of Things
   a. The number of connected devices could be more than 50 billion by 2020 in the country

9. Advantages of IoT in Effective Disaster Management
   a. Prevent – Monitoring vehicles using telematics; water level using sensors; sensors to detect wild fires, tornadoes, earthquakes, cloudbursts and volcanic activities; critical infrastructure protection through predictive maintenance of disaster management assets; hazard mitigation through monitoring of environment using sensors for pollutants and contaminants including radioactive scenarios; enabling early warning monitoring system

b. Preparation - Use of sensor technology to address real time stock and supplies replenishment, spares planning and automated indent processing; asset track and trace; use of complex event processing data, for notification of an action, based on capturing streaming sensor data, resulting in predictive resource deployment.

c. Response - Vehicle tracking and GIS integration; use of sensors to monitor the movement of key personnel; using NFC for geo fencing and parameter fencing; situational awareness and incident management through streaming data, unstructured data handling, predictive analysis, big data, complex event processing and social media analytics.

d. Recover: Use of sensor technology for identification and authentication of beneficiaries; use of smart cards and RFIDs for relief disbursal; create a virtual logistics network, that allows hub operators and others to monitor traffic towards and within a hub in real time and facilitate communication between all involved parties.

10. Recommendations
   a. Development of a framework for continuous industry participation in the planning for disaster management.
   b. Development and execution of a plan for backend applications for asset management with disaster management authorities.
   d. Development of a plan for prevention of cyber disasters.
   e. Inclusion of ICT in disaster management in the national skill development framework.
   f. Release of IoT policy for India.
   g. Release of guidelines related to cloud adoption in India as a part of Digital India policy framework.
1. The paper highlights how government departments can leverage a “voluntary” Aadhaar in collecting, verifying, assessing and authenticating data of beneficiaries.

2. The paper is the initial step in triggering the thought process on adoption of Aadhaar for multiple purposes by the government.

3. The Aadhaar (Targeted Delivery of Financial and other Subsidies, Benefits and Services) Act 2016 has been notified on 25th March 2016.

4. Aadhaar generation in the country has crossed 100 crores recently.

5. Highest possible effectiveness will only occur when all beneficiaries have Aadhaar for a given scheme.

6. Aadhaar Benefits:
   a. Aadhaar authentication if implemented across the service delivery process / supply chain, will help curb leakages and diversions, and help identify bottlenecks in delivery.
   b. Since beneficiaries can authenticate their Aadhaar anywhere, delivery processes can be re-engineered to make delivery more flexible and favourable to beneficiaries.
   c. Aadhaar can be used to empower beneficiaries and provide self-help facilities for activities such as checking entitlements, service delivery timeline and log grievances through self-service kiosks, phones, call centres etc.
   d. Aadhaar-based authentication can also be used for authenticating officials / members responsible for service delivery, audits, vigilance etc.

7. Recommendations:
   a. Carry out policy interventions to ensure that Aadhaar is one of the accepted Pol (Proof of Identity) and PoA (Proof of Address) documents for any given government benefit.
   b. Ask for Aadhaar number as an optional field in every application form; online or paper based, new applications or renewals.
   c. Leverage eKYC for paperless Pol/ PoA collection.
   d. Digitise and consolidate (to the State level) list of beneficiaries for every scheme in the department. Develop a clear phased strategy to link Aadhaar numbers to existing beneficiary identity.
   e. Redesign all services across the scheme lifecycle (application, eligibility check, enrolment, renewal, core service delivery etc.) to leverage Aadhaar platform services namely eKYC, Authentication and Aadhaar based DBT.
   f. Upgrade all relevant software applications to be integrated to Aadhaar platform services and all databases to link existing beneficiary identity to Aadhaar number where available.
   g. Auto fill of forms, reduction in data entry errors, faster digitisation and beneficiary data enrichment by leveraging demographic details and photos, from State Aadhaar Repository where available.
   h. Aadhaar identity can be leveraged to allow departments to check whether the beneficiary is claiming benefits from other schemes and may therefore not be eligible, while also protecting beneficiary data using just the Aadhaar numbers.
GST
What does GST mean for #MakeInIndia - Watch LIVE webinar, going live in nxt 30min.
http://telecom.economictimes.indiatimes.com/webinars/gst-esdm/125

Know about Opportunities & Challenges for IT & Electronics sector under proposed GST regime. Read in detail @ http://www.mait.com/gst.html

MAIT’s Gold Grade Certificate
Snippet from the 11th National Quality Conclave; MAIT being conferred with “Gold Grade” by the National Accreditation Board for Education and Training (NABET), Quality Council of India. Award was received by Amit Kumar Jha, Deputy Director, MAIT.
The Other Dignitaries were Mr. Vipin Sahni, CEO-NABET, Quality Council of India (QCI), Dr. R. P. Singh, Secretary General, QCI) and Mr. Hari K. Taneja, Trustee, D. L. Shah Trust.

Governments eMarket Place
MAIT w/ DGS&D, NeGD is facilitating Discussion & Training-cum-w/s on making purchases on “Govt e-Market Place (GeM)

Digital India
Dr. V. K Saraswat (@NITIAayog ) “Use of #tech for resource fulfillment is important for development of India” #IoTInDisaster#DigitalIndia

Dr. V. K. Saraswat laments lack of technological #innovation 4m Indian labs &#academic institutes @_DigitalIndia 1/2

Tablet Market Declining Trend
Will ‘Line of Biz’ #LoB apps help sustain d tablet growth or absence of same wud continue 2 hamper tablet growth? Disaster Management
@mait_in and @SAPIndia suggest using IoT for Disaster Management, releases whitepaper. Technology has enabled prediction & responding to #disasters. Learn how @mait_in@NITIAayog#IoTInDisaster#tech

IoT
Sensor data can help in achieving real time availability & provide predictive capabilities #IoT

Net Zero Imports
#NetZeroImports can strengthen domestic manufg. & increase domestic demand, its a str. method to self-sufficiency.

Finished #PC, #Servers, Motherboards &#SMPS in Phase-1 can give impetus to #NetZeroImports & value add up to 15%. Indian Electronics Ind. can compete w/ global peers wh cumulative disability of 16.45% is addressed #NetZeroImports
Impact of #NetZeroImports would result in the increase of GDP, Forex & Employment.

#NetZeroImports on #IT Hardware will not only make us self-dependent but will result in affordability for students and the society at large.

Rise of indigenous manufacturing through #NetZeroImports for IT & Electronics can generate more than 7.92 Lac jobs in the industry.

One of many advantages from #NetZeroImports - it helps in developing the much needed ‘supply chain’ for IT & Electronics Industry in India and also helps in bringing FDI. Read More at http://www.mait.com/netzeroimports.html

Disability emanating from Business Environment & Taxes needs to be done away with. The cumulative impact of 16.45% has opportunity cost in addition thereby, severing electronics industry in India from the global stream.http://www.mait.com/netzeroimports.html

IPR (Workshop organised by MAIT)
3rd MAIT National Workshop & Expo on IPR unfolds @ Bengaluru. Mr. P.K. Das, (Director STPI) inaugurates the event.
Empowering Indian Businesses. #IP portfolio being launched @ Bengaluru during 3rd MAIT Natl Workshop & Expo on IPR.

3rd MAIT National Workshop & Expo on IPR held at Bengaluru - an important piece to take Indian businesses to the next level.