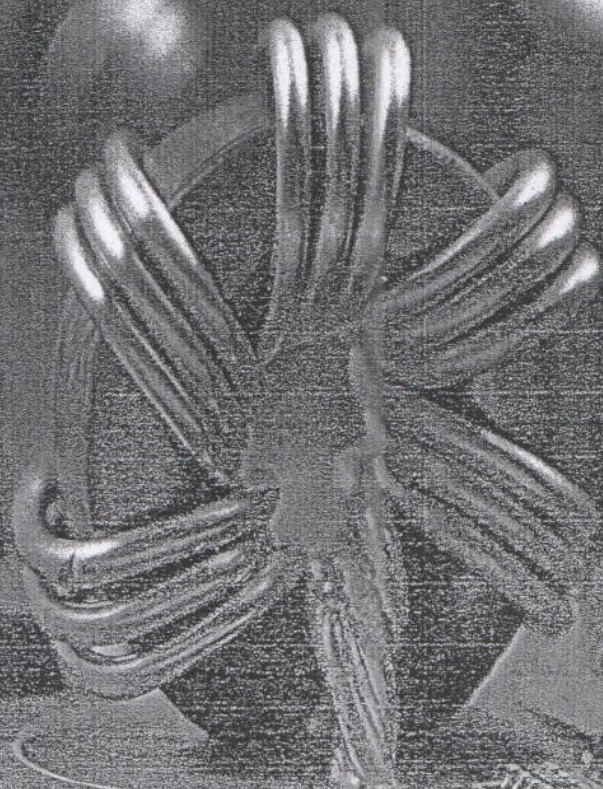


# Bihar ESDM Vision 2017

Department of Information Technology

Government of Bihar





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# 1. Preamble

## An overview of the Indian ESDM Industry

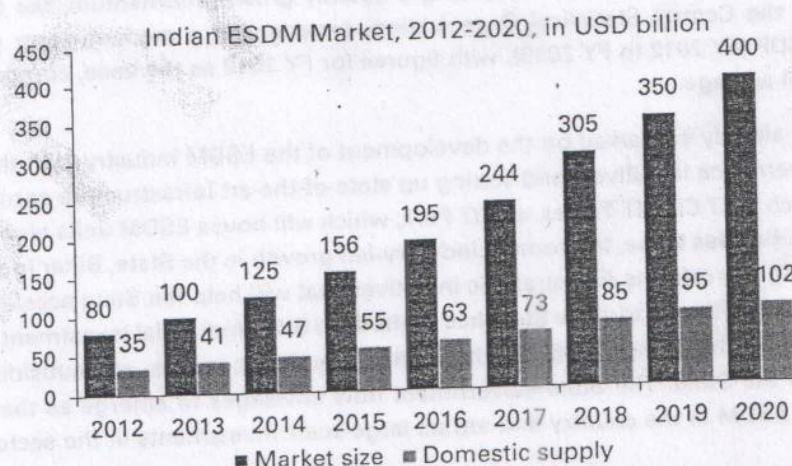
India is steadily marching towards becoming a leading global economy. Government of India's initiatives such as 'Make in India', 'Digital India', 'Ease of Doing Business in India' etc. aimed at strengthening the country, have led to an outburst of positive energy that has tied both the Central and State Governments together. Each State is gradually coming out in support of the initiatives and contributing towards developing a powerful economy that is self-reliant and at par with global practices.

Over the last couple of decades since economic liberalization, our country has emerged as the epicentre of consumer demand propelled by a phenomenal GDP growth. While demand increased across all sectors, demand for high technology products, specifically electronic products has registered significant growth. Due to the changing consumer/ institutional demand patterns over the last five years and the expected increase in demand for similar goods, Electronic System Design and Manufacturing (ESDM) sector has been exhibiting the maximum promise in the manufacturing space of the country. However, despite there being a significant increase in the demand, indigenous supply of electronic products has been relatively modest. Today, approximately 65% of domestic demand is met through imports as electronics accounts for 3<sup>rd</sup> largest imports followed by oil and precious metals. 62 percent of the country's demands are being met by electronic products from China and Taiwan.

Keeping pace with the global scenario, the Indian ESDM industry is currently one of the fastest growing industries in the country with its current size of US \$94.2 billion in 2015<sup>1</sup>. Rapidly increasing

population, growing disposable income and encouraging policy initiatives by the Government, have resulted in a huge ESDM market in India, with demand reaching US \$94.2 billion in 2015. The sector is projected to grow at a CAGR of 26 percent between 2014 and 2020<sup>2</sup>. According to industry estimates, India will import electronics

products worth US \$300 billion to meet the US \$400 billion strong demand between 2014 and 2020. This gap along with the strong consumer appetite and change in the global landscape in electronic design and manufacturing capabilities, presents huge opportunities for foreign investors in the country, as, however, still 35 percent of products manufactured by India belong to the 'Low Value Added Manufacturing'.



<sup>1</sup> Source: DIPP, Make in India

<sup>2</sup> Source: DIPP, Make in India



Government of India has set a vision to transform India into a global hub for ESDM companies, so as to meet the growing domestic and global demand. At the time when India is pushing hard to open up her markets, reduce regulatory roadblocks and develop innovative campaigns such as 'Make in India' to attract more foreign direct investment in a bid to fuel growth in the country and create job opportunities for a fast growing young workforce, the ESDM sector offers great opportunities of attracting large scale investments from marquee domestic and global companies.

While multiple challenges to electronic manufacturing in India are currently thwarting the growth of domestic manufacturing, the last couple of years have witnessed the announcement of a slew of policy measures and initiatives by Government of India to partly offset these disabilities. The sector currently enjoys several facilitative Government initiatives, such as, Modified Special Incentive Package Scheme (M-SIPS), Electronics Manufacturing Clusters Scheme (EMC), National Policy on Electronics (NPE), Export incentives etc. 100 percent Foreign Direct Investment (FDI) is allowed in the ESDM sector under the automatic route and is subject to all applicable laws and regulations. The National Policy on Electronics (NPE) has been framed to create a globally competitive ESDM industry in the country by attracting investments worth more than US \$100 billion and creating employment for 28 million people in the sector at various levels. Likewise, the preferential market access policy offers preference to nine electronic products and twenty three telecom products for Government procurement. Recognizing this importance of the ESDM sector of the country as a driving force behind economic growth, job creation, and citizen enablement, the Government of Bihar is now adopting focused initiatives towards developing the sector as a priority sector in the State.

## Bihar ESDM Vision 2017

The State of Bihar is currently one of the fastest growing State economies of the country. In 2014-15, Bihar emerged as the fastest growing State economy of the country clocking a growth rate of 17.06 percent of GSDP at current prices<sup>3</sup>. Enjoying a healthy growth momentum, the State, according to estimates by the Central Statistical Organization, experienced a medium term growth rate of 7.6 percent in GSDP (FY 2012 to FY 2016), with figures for FY 2012 as the base, compared to 6.8 percent of the national average.

The State has already embarked on the development of the ESDM industry with the implementation of several governance initiatives, and setting up state-of-the-art infrastructure earmarked for IT/ITeS and ESDM, such as IT City, IT Tower, and IT Park, which will house ESDM units along with units in the IT/ITeS sector. Besides these, to promote industry-led growth in the State, Bihar is also in the process of implementing key reforms and strategic initiatives that will help the State accelerate its envisaged development plan in the sector. The State has drafted the Bihar Industrial Investment Promotion Policy 2016, and Bihar Startup Policy 2016, offering sector specific incentives, and subsidies to ESDM units and startups in the State. The State Government now envisages to emerge as the next investment destination for ESDM in the country and attract large-scale investments in the sector in the next five years.

All these initiatives have already led to an outburst of positive energy that has closely tied the Government and the citizen/ entrepreneur community of the State. As the States of India are wooing investors by being the most agile and facilitative, the State Government of Bihar has conceptualized the Vision of the State with special and targeted focus on the ESDM sector. The Government's vision to develop the ESDM sector in the State revolve around:

- a. Developing Bihar into the next investment destination for ESDM and allied industries

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<sup>3</sup> Source: Center for Monitoring Indian Economy (CMIE)



- b. Promoting the indigenous manufacturing of entire range of ESDM products for economic growth and gainful employment
- c. Enhancing employability of the Bihari youth in the ESDM sector to meet most of the resource demand in the sector of the State
- d. Developing the ESDM startup ecosystem in the State for an innovation driven economy and increased MSME activities

While the ESDM sector of the State is still at a nascent stage, the sector shows promises owing to major enablers offered by the State, in terms of a robust economy, a large pool of technically skilled workforce; booming sectoral infrastructure, low cost of doing business, and a stable governance and legal framework.

ESDM has one of the most distributed global value chains and hence every investor needs to ensure that manufacturing in the State is competitive not only within India, but should be comparable or better than other global destinations. Interactions with some of the biggest ESDM players globally, helped in identification of some of the most important issues that they face:

- o Capital Requirements
- o Design (R&D, Patent, IPR)
- o Cost of Capital in India vs other countries
- o Tax (inverted taxation) issues
- o Infrastructure and Connectivity
- o Lack of cutting edge electronics startups/ MSMEs

This helped in understanding that ESDM investors are looking for very specific advantages in selecting one location over the other. Given the enormity and specialized needs of this sector, therefore, a gradual shift is needed from providing a common infrastructure and a general policy support to sector specific interventions in terms of industrial infrastructure, policy interventions, and regulatory support mechanisms targeting this sector.

The Government recognizes that the intended changes in the industrial economics of the sector of the State is a transformational goal and in order to facilitate the same, it will have to introduce sector-targeted enablers in the form of branding, infrastructure augmentation, changing the policy paradigm and encouraging a culture of entrepreneurship that will help in creation of a healthy ecosystem of doing business in the sector. Earlier, States would provide common infrastructure and a general policy support for a diverse set of industrial sectors. However, the situation today demands sector-specific solutions aimed at addressing its specialized needs in terms of industrial infrastructure, policy interventions, regulatory support and in some cases, even social infrastructure. While the State has drafted the Bihar Industrial Investment Promotion Policy 2016, and Bihar Startup Policy 2016, the holistic growth of any industry in the State can be achieved only if appropriate sector-level interventions are adopted in policies, infrastructure, skilling, startups, and marketing for the sector. As the sector evolves into a major focus sector of the State, it needs to be continuously promoted and encouraged as well, among the global investor communities. Countries like China, Taiwan, Germany, South Korea, and Singapore, the major exporters in the sector, have all been continuously promoting ESDM with forward-looking sector-focussed initiatives.

Accordingly, to enable the State to achieve its intended development in the ESDM sector, the Bihar ESDM Vision 2017 has been drafted, charting out targeted incentives and concessions that can potentially create large scale growth opportunities in the ESDM space of the State. The Bihar ESDM Vision 2017 charts out the specifics of the intended developments through adequate sector-level interventions, while addressing the specialized needs of the ESDM sector. The interventions and reforms revolve around five major action areas as given below:

- i. Fiscal support
- ii. Regulatory reforms
- iii. Infrastructure augmentation
- iv. Skill development and entrepreneurship
- v. Market accessibility and branding



## 2. Vision, mission, and objectives in the ESDM space

### Vision

Once recognized primarily as an agrarian economy, the State of Bihar has a lot to offer in the ESDM sector. The State Government envisages to exploit the growing electronic manufacturing prowess of the State and develop the ESDM sector for inclusive growth and large-scale gainful employment generation. The State also intends to leverage electronic medium to improve service delivery, and provide greater access to information and convenience to citizens. The ESDM sector of the State is poised to play a dominant role in contributing towards developing a powerful State economy that is self-reliant as well as at par with notable global practices.

#### **Bihar ESDM Vision**

*"To facilitate, promote, and develop the ESDM sector of the State and make Bihar one of the most preferred investment destinations for ESDM companies in the country, while offering an enabling environment for industrial investments, transparent and dynamic governance, large scale adoption of R&D and innovation, and supply of a large pool of technically trained manpower available at affordable cost."*

### Mission

1. To promote Bihar as one of the top five investment destinations for ESDM companies in the country through a balanced regional and sustainable development of the sector of the State.
2. To develop the State into an electronics design and manufacturing hub that is globally competitive and meets the country's needs.
3. To increase the contribution of the manufacturing sector to the State economy, in line with the Central Government's 'Make in India' initiatives, by creating the next ESDM hub in the State.
4. To develop a sector-focused state-of-the-art infrastructure ecosystem in the State through a slew of financial, regulatory and institutional reforms leading to a revival of investor sentiment in the State.
5. To create opportunities for gainful employment of the youth in the sector, enhancing their employability, and developing a sustainable skill ecosystem wherein the workforce is equipped with employable skills and knowledge so as to be able to contribute to the economic growth of the State and the country.
6. To reposition Bihar to imply a 'business-friendly' and 'investment-attractive' destination with major policy push to build 'Brand Bihar', and be a part of the 'Top-of-the-mind-recall' amongst global investors through reforms that are unique and aimed at increasing the investor confidence in the Vision of the State in the sector.

7. To build a strong eco-system for nurturing innovation in the State and empower startups to grow through innovation, design, and by inviting new ideas and businesses across domains in the ESDM sector.
8. To build a strong and sustainable supply chain for raw materials, accessories, parts, and electronic components for manufacture/ value-addition within the State from within and outside the country.

## Objectives

1. To develop the ESDM sector as a priority sector of the State.
2. To promote 'Brand Bihar' as a major investment destination for ESDM sector in the country.
3. To attract at least five major ESDM players, domestic as well as international, in the State in the next five years.
4. To create an incremental employment for 10,000 people in the State in the ESDM space in the next five years.
5. To generate a gross turnover of Rs. 5,000 Crore in the next five years in the ESDM space.
6. To emerge within the top three Startup capitals in the ESDM sector of the country
7. To conduct skill development and capacity building for at least 5,000 youth in the sector of the State in the next five years.
8. To enhance the indigenous manufacturing of electronic products in the State and promote activities by MSMEs and startups.
9. To develop an Electronic Manufacturing Cluster (EMC) and a Design and Fabrication Centre in the State.

## Focus Areas

- i. Computer peripherals and other office equipment
- ii. Chip manufacturing and design
- iii. Semiconductors
- iv. Server and storage devices
- v. Communication and Networking devices
- vi. Automotive electronics
- vii. Medical Electronics
- viii. Industrial Electronics
- ix. Telecom electronics
- x. Strategic electronics and devices
- xi. Electronic manufacturing services
- xii. Solar Photo Voltaic including thin film, polysilicon cells
- xiii. Electronic consumer products
- xiv. LEDs
- xv. Embedded software
- xvi. Defence electronic equipment
- xvii. Information, and broadcasting electronic devices



# 3. Incentives

## 3.1 Fiscal support

The cost of capital in our country is much higher as compared to one available abroad at LIBOR linked interest rate. Also for products with high value addition, the cycle from design to commercialization is relatively long. High cost of capital in India thus results in high per unit interest cost on such products.

Today, the biggest challenge faced by the budding entrepreneurs and startups, and even established industrial players in the country is access to finance. It is imperative for startups to make significant capital investment for embracing the ever-changing technology and fighting the rising competition. Startups need to navigate through the unique challenges arising from their venture on routine basis which may also be expensive. Even the established players face issues with lack of funds as the cash-to-cash cycle in the manufacturing sector is relatively long.

In order to ensure access to adequate and timely finance at different stages of business cycles, which in turn will promote investments in the State, the Government of Bihar, therefore, intends to offer a slew of fiscal incentives and concessions targeting the sector.

The State Government of Bihar has accorded a 'high-priority' status to the ESDM sector of the State, and intends to develop the same with targeted fiscal incentives, considering the specialized needs of the sector, as per the section 3.0 in the Amended Bihar Industrial Investment Promotion Policy 2016, as modified from time to time.



## 3.2 Regulatory Reforms

Ease of Doing Business is manifested by radical regulatory reforms that improve the experience of doing business by reducing the time, costs and number of procedures associated with starting, operating and exiting a business. These reforms can provide impetus to the overall economic growth in the State by enhancing investments, productivity and exports in the manufacturing sector. The streamlined processes also help Governments save time and resources, allowing them to focus on investment policies, incentives and other core functions.

The State Government of Bihar would, therefore, ensure that the business environment in the State is conducive to investors and that the licensing procedures for setting up and running a business are streamlined, adaptable, transparent and relevant through a slew of regulatory reforms.

### 3.2.1 Essential service

The State Government may declare non-hazardous Electronic System Design and Manufacturing as essential service under the Bihar Essential Services Maintenance Act, 1947.

State Government of Bihar is taking efforts to ensure availability of 24 hours of uninterrupted power supply to the industries situated in all industrial areas. All the industries getting electricity supply from 132/220 KVA feeders, may be exempted from power cuts, until necessary for safety of the grid.

### 3.2.2 Time-bound single-window clearance

The Government of Bihar will ensure the provision of time-bound single window clearance mechanisms for faster processing of applications of anchor projects and Ultra-Mega projects under EMC scheme and under other Central and/ or State Government scheme.

The State Government designated empowered committee will ensure smooth clearance process and to process, administer, and disburse incentives in a speedy, transparent and time-bound manner. The committee will also take up the issue of long-drawn processes of land allotment for ESDM industries as a special drive putting the entire process on a fast track.

### 3.2.3 Exemption from inspections

The ESDM industry of the State may be exempt from compliance inspection under the Acts and Rules as given below, and industries may file self-certification or third party certification, except for inspection for verification on receiving certain complaints.

- i. Factories Act, 1948 and Rules framed thereunder.
- ii. Minimum Wages Act, 1948 and Rules framed thereunder.
- iii. Payment of Wages Act, 1936 and Rules framed thereunder.
- iv. Contract Labour (Regulation & Abolition) Act, 1970 and Rules framed thereunder.
- v. Payment of Bonus Act, 1965 and Rules framed thereunder.
- vi. Payment of Gratuity Act, 1972 and Rules framed thereunder.
- vii. Maternity Benefit Act, 1961 and Rules framed thereunder.
- viii. Child Labour (Prohibition & Regulation) Act, and Rules framed thereunder.
- ix. Shops & Commercial Establishments Act, 1958 and Rules framed thereunder.
- x. The Inter-State Migrant Workmen (RECS) Act, 1979 and Rules framed thereunder.
- xi. The Equal Remuneration Act, 1976 and Rules framed thereunder.
- xii. Motor Transport Workers Act, 1961 and Rules framed.

Non-hazardous electronic hardware manufacturing units may also be exempted from the purview of Water (Prevention and Control of pollution) Act, 1974, and Air (Prevention and Control of pollution) Act, 1981, except in the case of use of power generation sets.



3.2.4 Relaxation of working hours of women employees  
Working hours of women employees in the IT product manufacturing and ESDM industry may be relaxed under the Factories Act and women employees will be allowed to work 24 hours, subject to the conditions of women's safety and security, at the working place and during transit, being sufficiently fulfilled by the employer. In this case the employer will, therefore, be responsible for escorting the woman employee after general shift to and fro the workplace by armed security guards.

### 3.3 Infrastructure augmentation

Robust infrastructure is a major hygiene factor and the fulcrum of economic development of any State. While sector-supportive policies, and competitive and cooperative federalism are hygiene factors of development, the differentiator, today, is often the sector-focused strategic infrastructure ecosystem development, that positions the State favourably among the investors.

With a resurgent economy and a strong focus on bolstering investment and economic development, the State will undertake targeted infrastructure initiatives to strengthen investor sentiment in the State.

#### 3.3.1 Additional FSI for ESDM industries

Land usage may be amended for all ESDM/ IT and ITeS units and Parks to enable the development of 'Integrated Industrial Townships'. Accordingly, 100 percent additional FSI on the allowable FSI for Residential/ Office purposes (whichever is more) will be allowed for ESDM units in approved public and private IT Parks, industrial areas, and EMCs within the State, set up under the Bihar Industrial Investment Promotion Policy 2016 or previous ICT, IT/ ITeS Policy of Bihar.

#### 3.3.2 Development of support infrastructure for IT Parks/ EMCs

IT Park developers will be allowed to build residential/ commercial complexes and industrial centres within the Park in the ratio of 20 to 80. Developers of private IT Parks will be permitted to build quality road connectivity with nearest airports, State or National highways, and the investments made by the developers will be adjusted against the property taxes payable by the developers of such Parks to the urban local bodies within the State.

#### 3.3.3 Electronic Manufacturing Cluster

In order to emerge as a significant ESDM player in the East, the State Government may develop an Electronic Manufacturing Cluster (EMC) in Rajgir, to be developed in the PPP route through a consortium selected by a bidding process involving QCBS methodology of selection. The State Government may set up a Design and Fabrication Centre within the EMC. Special targeted facilities for the ESDM sector may then be provided through the Centre, which would include:

- o Test and Certification; Tool Room, Design House
- o IT/Communication Centre
- o Common Training/ Convention Centre
- o Workers Housing Complex and Related facilities
- o Utilities, Roads, Backup Power generation, Water supply, Welfare facilities
- o ESDM innovation centres for entrepreneurs for concept to prototyping
- o Enabling infrastructure such as VLSI design tools, prototype development facilities, testing facilities, characterization labs, compliance and certifications labs

#### 3.3.4 Exclusive transport arrangement

As most of the electronic products and components are light weight and are of high value, air freight is a preferred mode of transport. 24/7 Airport facility, with exclusive cargo access to Anchor Units without any airspace time restrictions (maximum of 30 minutes travel time from the manufacturing centre) and quick turnaround time will be ensured for the growth of the sector at the Patna and the Bodhgaya Airports. A dedicated air cargo complex will be set up close to Patna International Airport to provide the intended impetus to the exports of hardware and electronic products from the State.



### 3.3.5 Promotion of PPP in infrastructure development

The State Government of Bihar recognizes the significance of eliminating the infrastructural bottlenecks that could possibly jeopardize the growth of ESDM industry in the State. State Government will therefore encourage more investments in the PPP route for the creation of state-of-the-art social and civil infrastructure for professionals engaged in the sector.

The buildings, infrastructure, and facilities, in the form of IT Parks, IT Towers, and IT Zones, EMCs shall be developed adopting a transparent PPP policy, involving a consortium of developers and/ or industry players, selected through a transparent bidding process involving QCBS methodology of selection.



### 3.4 Skill development and entrepreneurship

Skilled workforce is one of the major contributors to the economic growth of any State. States with high skill standards are able to cope up in a much better way with the challenges and opportunities presented by the ever changing domestic and international markets.

Given that ESDM is a high precision industry involving advanced technology, the State Government accords high priority to skilling and capacity building in the sector, and aims to provide the overall institutional framework to expedite and scale up skill development efforts.

#### 3.4.1 Skill enhancement and capacity building

- i. Technical institutes in the State will be encouraged to offer more cross-sectoral degrees. More IT and Electronics modules will be included in the course curricula of other streams of engineering. Industries will be encouraged to collaborate more with colleges in setting up research labs in college campus. Internships will be made an integral part of the course curriculum in all colleges. An independent regulatory authority will be set up under the State Board of Technical Education, Government of Bihar that will oversee criteria of entry, accord of degree, ensuring standards of education.
- ii. Vocational Training Improvement Project (VTIP) will be adopted to improve the employability of the ITI graduates in the State by fine tuning the training delivery according to the demand of the industry. An Industrial managing Committee will be set up at district-level, with representation from the local industries, and will facilitate decision making at a local level and choosing disciplines and trades according to the local industry needs.
- iii. The State Government will incentivize institutes that ensure 'training to placement', and such that training and capacity building should focus on post training placement opportunities and mobilization of resources and opportunities for self-employment and entrepreneurship with a focus on Electronics Hardware in the State. The State Government will also train and certify at least 200 trainers annually for the next five years for the ESDM industry through certified Training Service Providers (TSPs) in the State.
- iv. The growth of the ESDM industry requires a steady access to a large pool of technology talent. Accordingly, more number of IIITs and ITIs will be planned to be set up in the State to augment Information Technology and Electronics skills in the State. Industries should collaborate more with colleges in setting up research labs in college campuses.

#### 3.4.2 Support for incubation, innovation, and entrepreneurship

Entrepreneurship has multi-faceted impact on the economy of a State. Two important ones are innovation driven growth and increase in MSME activity which act as building blocks for the manufacturing as well as services sector.

The State of Bihar has seen an ocean of changes and developments over the last few years and has adopted several enablers to push forward the agenda of getting the workforce 'digitally' skilled, empowering the citizens, bridging the rural-urban divide through digital literacy, improving Government services and enhancing the access to digital infrastructure. Recognizing the importance of entrepreneurship as building block of manufacturing in the State, and innovation-driven ideas that could solve existing issues or bring in greater efficiency in existing processes, now is the right time to promote entrepreneurship and innovation in the State.

- i. Startups will be provided plug-and-play space with seamless power connectivity and internet at concessional rates depending on location. Allocated space may be Government owned/ leased or privately leased, with internet connectivity, electricity and water security.



- ii, The State Government shall allot 10 percent of spaces in forthcoming IT Parks, SME Clusters and Hub, for startups/ incubators/ common shared infrastructure on preference.

#### 3.4.3 Preferential procurement

In order to promote the startup environment in the State, the State Government will encourage local participation while awarding projects with Government Departments for implementation, through collaborative arrangements between national and international companies and local enterprises having relevant experience, expertise and reach. For availing incentives, ESDM enterprises that have their registered offices in Bihar and having at least 50 percent of their employees who are domicile of the State, will be termed as local enterprises.



### 3.5 Market accessibility and Branding

Marketing aims at creating awareness of an area as a location for new investment among potential investors and correcting weak or misperceptions about the area that could act as a "killer" factor. In other words, marketing aims at building up the image of the location and at putting it on the investment destination map.

Hence, while a review of policies and infrastructure in Bihar will suggest that the State has moved ahead in doing the right things for aiding businesses, it is important to understand how investors perceive of the State and the developmental activities undertaken in the last few years. These need to be showcased to the global investor community to foster the mobilization and attraction of foreign and domestic investments.

#### 3.5.1 Promotional activities

The Government would organize various promotional events and road shows at various domestic and international locations from time to time to attract large-scale private sector investments from target countries. The Government shall promote and encourage participation from the industry, industry associations, PE and VC firms etc. from across the country and worldwide in ESDM events, exhibitions, roadshows and conferences organized by the State Government. The State Government will regularly organize Business Plan Competitions, Hackathons, and other events in partnership with industry bodies, associations, and other agencies to showcase the fact that "Bihar is changing".

The State Government will also organize an annual ESDM event, in collaboration with industry bodies, association, and academia, showcasing the State's prowess in the ESDM sector and highlighting the tremendous change that the State has witnessed in the sector in the past few years.



## 4. Definition

1. **Anchor unit:** An anchor unit refers to an ESDM unit investing more than Rs. 100 Crore, excluding the cost of land, for commercial operations within the State, and employing at least 250 people in the State, with at least 100 of them being domicile of the State of Bihar within three years from the commencement of commercial operations.
2. **Department:** Department refers to Department of Government of Bihar, unless otherwise specified as the Government of India, or the Government of any other State of the country.
3. **Domicile of the State:** Domicile of the State of Bihar means those who have been defined by the Bihar State Government, from time to time, as the original domicile of Bihar and who hold the certificate issued for this purpose by the competent authority.
4. **Electronic Manufacturing Cluster (EMC):** An Electronic Manufacturing Cluster (EMC) refers to either a Greenfield EMC or a Brownfield EMC, as notified under the EMC scheme, issued by the Department of Electronics and Information Technology (DeitY), Government of India. A Greenfield EMC would be an undeveloped/ underdeveloped geographical area, preferably contiguous, where the focus is on development of basic infrastructure amenities and other common facilities for ESDM units. A Brownfield EMC would be a geographical area where a significant number of existing ESDM units are located and the focus is on upgrading infrastructure and providing common facilities for the ESDM units.
5. **ESDM unit:** ESDM unit refers to an industrial unit with more than 50 percent investments, excluding the cost of land, transfer fee, and registration charges, into the entire value chain of all electronic verticals/ electronic products covered under the National Policy on Electronics and the related notifications issued by the Department of Electronics and Information Technology (DeitY), Government of India, including but not restricted to computer system hardware, communication and networking devices, strategic electronics and components, electronic manufacturing services, automotive electronics, industrial electronics, telecom electronics, medical electronics, information and broadcasting electronic devices and equipment, Nano electronics, Solar Photo Voltaic including thin film, polysilicon, electronic toys, LEDs, semi-conductors, embedded software, electronic consumer products, and defence electronic equipment. The value chain of ESDM will include designing, manufacturing and assembling, testing of electronic products/ components/ accessories for OEMs within the State.
6. **Government:** Government means Government of Bihar in this Vision unless otherwise specified.
7. **Incubation centre:** Incubation centre means physical spaces which helps entrepreneurs to convert their ideas in becoming successful and profitable ventures by supporting them in business planning, mentoring, recruiting their top team, commercializing their technologies, developing their products, getting early seed funding, helping in forging partnerships at the national and global level, advising on intellectual property, training and development and many other things. This could be a private agency or a Government institution.
8. **IPR:** IPR refers to Intellectual Property Right which is the right granted to the creator of Intellectual Property and includes copyright, patent, trademark etc.
9. **IT Park:** An IT Park refers to a designated industrial area in the State, earmarked for industrial units with at least 75 percent being in IT/ ITes and allied sectors, as defined by the Department of Information Technology, Government of Bihar, from time to time. The land proposed for the Park should be either Government owned land or under the absolute possession of the promoter/ developer, and should be free from encumbrances. The land should not have been obtained/ owned by the promoter on leasehold basis. The minimum area of the Park should be 3 acre, and should have minimum five independent units, and at least 20 percent of the land would be earmarked for the general use/ development of basic infrastructure/ green area and future requirements.



10. **Project cost:** Approved project cost shall mean the project cost finally approved by the competent authority as defined by the State Government of Bihar from time to time
11. **Registered entity:** Registered entity refers to an entity registered with Registrar of Companies (RoC) Bihar.
12. **SME:** SME refers to small, and medium enterprises in Bihar, where the investment in plant and machinery is more than twenty-five lakh rupees but does not exceed five Crore rupees for small enterprises, and where the investment in plant and machinery is more than five Crore rupees, but does not exceed ten Crore rupees for medium enterprises.
13. **Startup:** Startup means an entity, incorporated or registered in Bihar not prior to five years with an annual turnover not exceeding Rs. 25 Cr. in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.
14. **Term loan:** Term loan refers to term loan sanctioned and disbursed by banks/ financial institutions for the purpose of financing.
15. **Ultra-Mega Project:** An Ultra-Mega Project means a project with investments, excluding land cost, of at least Rs. 500 Crore, for operations within Bihar, and generating employment for at least 1,000 people, with at least 250 people who are domicile of the State, within a period of three years from the commencement of commercial operations.



## 5. Index

<b>CAGR</b>	Compound Annual Growth Rate
<b>DPR</b>	Detailed Project Report
<b>EMC</b>	Electronics Manufacturing Cluster
<b>EoDB</b>	Ease of Doing Business
<b>ESDM</b>	Electronic System Design and Manufacturing
<b>FDI</b>	Foreign Direct Investment
<b>FY</b>	Financial Year
<b>GDP</b>	Gross Domestic Product
<b>GSDP</b>	Gross State Domestic Product
<b>ICT</b>	Information and Communication Technology
<b>IIIT</b>	Indian Institute of Information Technology
<b>IIM</b>	Indian Institute of Management
<b>IIT</b>	Indian Institute of Technology
<b>IT</b>	Information Technology
<b>ITeS</b>	Information Technology enabled Service
<b>LIBOR</b>	London Interbank Offered Rate
<b>M-SIPS</b>	Modified Special Incentive Package Scheme
<b>NPE</b>	National Policy on Electronics
<b>PE</b>	Private Equity
<b>PPP</b>	Public Private Partnership
<b>QCBS</b>	Quality and Cost Based Selection
<b>R&amp;D</b>	Research and Development
<b>SGST</b>	State Goods and Services Tax
<b>VTIP</b>	Vocational Training Improvement Project