



**INVEST**   
**PUNJAB**  
**BUSINESS F1RST**



## IT/ITES & ESDM



# PUNJAB'S UNIQUE MODEL FOR EASE OF DOING BUSINESS



INVESTMENTS

**INVEST  
PUNJAB**  
BUSINESS FIRST

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Invest Punjab

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**1 Email**

[invest@investpunjab.gov.in](mailto:invest@investpunjab.gov.in)

Investment Promotion Agency | Unified Regulator | Aftercare Agency

**WE COMMIT. WE DELIVER.**

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- **Investment Opportunities**



# INDIA SCENARIO

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## Snapshot of IT/ITeS and ESDM Sector

### IT/ITeS

Share in GDP  
**8%**

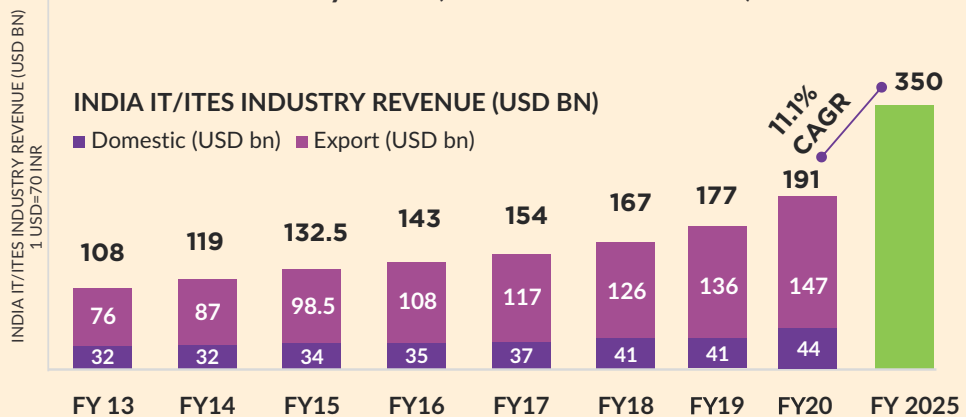
Share in services export  
**45%**

Share in global outsourcing market  
**52%**

FDI  
**USD 6 billion**  
(INR 0.42 Lakhs Crore)  
(2017-18)  
(2nd largest sector in FDI inflows)

Employment  
**4.3 million**  
(FY 20)

The market size of IT/ITeS is expected to grow to **USD 350 billion by 2025** (INR 24.5 Lakhs Crore)



### ESDM

The Indian electronics hardware market is one of the largest in the world and is expected to reach **USD 540 billion in 2025** from **USD 215 billion in FY2019**

FDI **USD 452 million**  
(INR 3,164 Crore) (2018-19)  
up from **USD 197 million**  
(INR 1,379 Crore) (2017-18)

Share in GDP  
**2.3%**

CAGR (FY19-FY25)  
**16.6%**

Source: India Brand Equity Foundation, Invest India, Make in India, NPE

# Drivers of India's IT/ ITES Sector



## Growing Demand

- Rising domestic demand led by BFSI, Healthcare, Retail & eCommerce
- Market Size of BPM : US\$38 billion in FY20. Market Size of BPM industry to reach US\$54 billion by FY 25
- Growing demand from APAC, Latin America and Middle East
- New opportunities due to emerging technologies such as AI/ Blockchain/ Data Analytics
- IT spending in India is projected to increase by 6% to reach US\$82 billion in 2021
- India Data Center Industry has attracted an investment of US\$ 396 million in 2020 and has investment opportunities worth US\$ 3.5 billion over the next three years



## Infrastructure

- 231 exporting SEZs across the country to create employment, boost exports and encourage infrastructure development
- 62 Software Technology Parks of India (STPI) centers across the country
- Robust IT Infra like country-wide OFC network, broadband coverage, IT parks etc



## Human Capital

- Presence of highly skilled, English speaking workforce
- In FY20, the industry added 138000 new employees, taking the total employment to 4470000
- Approximately 780,000 engineering graduates annually
- In September 2020, NASSCOM FutureSkills and MS collaborated to launch a national wide AI skilling initiative to train 1 million students in AI technology by 2021



## Policy

- 100% FDI permitted under automatic route
- Focus sector under Make in India
- National Policy on software products (2019) to promote software development, create 35 lakh jobs by 2025, & nurture 10000 startups
- Dedicated software product development fund being created with a corpus of INR 1000 crore
- Thrust on Artificial Intelligence (AI) usage across all sectors

# Drivers of India's ESDM Sector



## Growing Demand

- Poised to be the 3rd largest consumer economy in the world
- 2nd largest manufacturer of mobile phones in the world
- Increasing per capita income and resultant change in lifestyle
- Expected growth from Tier 2 & 3 cities
- Increased presence of organized retail
- Huge demand for electronic goods in the Middle-Eastern countries, emerging markets such as North Africa and Latin America



## Infrastructure

- Under Electronics Manufacturing Cluster (EMC) Scheme - 20 greenfield EMCs and 3 brownfield EMCs being set-up to attract investment of INR 54,836 crore
- ESDM Incubators being set-up by MeITY
- COEs in cutting edge electronic design have been set-up by MeITY
  - National Centre for Flexible Electronics (NCFlexE), IIT Kanpur
  - National Centre of excellence in technology for internal security - IIT Bombay



## Human Capital

- Setting up of Electronics Sector Skill Council with NSDC & other Associations
- Financial Assistance to States/UTs for skill development in EDSM to train 90,000 candidates at total outlay of approx INR 114 crore
- Support for 3,000 additional PhDs in ESDM and IT sector at an estimated cost of INR 466 crore for a period of 9 yrs
- Scheme for "Skill Development in ESDM for Digital India" to facilitate skill development of 328,000 persons in ESDM at an outlay of approx INR 411 crore



## Policy

- 100% FDI permitted under the automatic route
- National Policy on Electronics (NPE) 2019
  - Focus on emerging technologies such as 5G, IOT, AI, Robotics, Drone, etc.
  - Sovereign Patent Fund for development & acquisition of IP
  - Special package for export promotion, incentives for core component manufacturing ecosystem, high capital intensive projects
- The production-linked incentive (PLI) schemes provides opportunities to establish manufacturing plants in India.



# PUNJAB: EMERGING IT/ITeS and ESDM HUB







## IT/ITeS Ecosystem: Overview of Present Scenario

### Strong Ecosystem

Presence of 150+ registered IT units	Approximately 35,000+ IT professionals in the region	Higher cost savings of 9-14 % over tier 1 cities	Achieved more than twice the allotted target by bagging 2600 seats under the flagship Gol IBPO Scheme	STPI Exports amounting to INR 5,000 crore
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Presence of firms such as Xenon Stack, Zini AI, Endoenergy Systems Private Limited in emerging technologies such Big data, AI, Machine Learning, Exoskeleton, DevOps Consulting, Data Warehousing, XD Design Studio, Preventive & Assistive Technology for Healthcare

### Top countries for IT/ITeS Exports



### Top IT/ITeS Companies





## Mohali - The Next Big IT Destination



**STPI, Mohali- Largest STPI Incubation Facility in India**

# Mohali- The Upcoming Center of Growth



## ○ STPI

- Tier III standard world class Data Center with 160 rack capacity
- Biggest Incubation Centre with an area of 1.4 lakh sq. ft
- Plug & Play Facilities: State-of-the-art Network Operations Centre

## ○ IT City

- Project area of 1700 acres
- Approximately 60 companies present in various stages of operationalization
- Surrounded by existing Aerocity, World Trade Centre, leading Research & Academic Institutes



## ○ QUARK City

- Notified IT SEZ
- Approximately 10 lakh sq. ft of area
- Presence of over 70 IT/ITeS Companies
- Power from Quark City's own 66KV substation
- Multi tenant facility with 24 X 7 operations

## ○ BESTECH Towers

- IT Park/ commercial complex
- Multi-Level Car Parking, Centralized Air- Conditioning & 100% Power Backup
- 3.5 lakh sq. ft. area available
- Options for Sale & Lease of bare shell & Plug N Play



## Neuron: Centre of Excellence at STPI Mohali

Neuron is an initiative, to identify and evaluate promising startups in the field of AI/Data Analytics, IoT and Audio, Visual, Gaming (AVG) that will be hosted in the Startup Punjab Hub at STPI Mohali Incubator



1

Artificial Intelligence



2

Internet of Things



3

Data Analytics



4



Audio, Visual, Gaming

## 500 SEATER INCUBATOR

with an Investment of INR 20 crore at STPI Mohali.

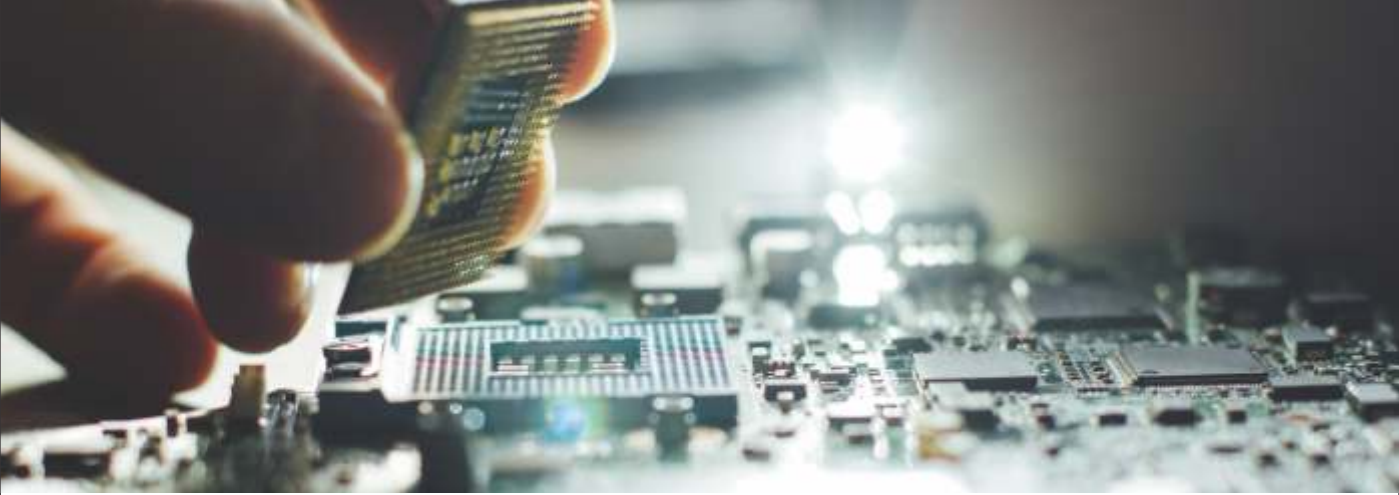
Startups working on Cutting Edge Technologies

### Partners



Ministry of Electronics and Information Technology  
Government of India





## ESDM Sector in Punjab

India's only large scale ASIC Fabrication Laboratory

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Contributing to space and beyond through cutting edge R&D



Semiconductor Laboratory (SCL) supplied more than 100,000 units of Multiplexed Analog Signal Processor (MANAS) ASIC for use in high energy physics experiments (ALICE) at Large Hadron Collider, CERN- Geneva



SCL Developed two kinds of Low Drop Out (LDOs) Regulators for use in fabrication of equipment on-board spacecraft rocket Chandrayaan - 2

### Major ESDM Companies in Punjab



### Research Institutes



# Snapshot of ESDM Ecosystem in the Region



## ○ Semi-Conductor Lab

- SCL is engaged in design and development of Microelectronics
- The country's only CMOS fabrication facility (Fab)
- Designed over 150 ASIC/ Standard Blocks in last 5 years, meeting ISRO's requirements



## ○ Defence

- Ordnance cable factory, established in collaboration with SUMITOMO Japan in 1963
- Product portfolio includes Carrier Quad Table, Spring Steel Wires Air Field, Filled Cable Assemblies for T-72 & BMP-I

# ETDC

## ○ Testing & Development Centre

- ETDC, Mohali is a leading laboratory engaged in providing Accredited Calibration and Testing Facilities
- Serves small and medium scale electronic industries



## ○ Scientific & Industrial Instruments

- CSIR is a premier national laboratory dedicated to R&D and design of scientific and industrial instruments
- Offers R&D facilities in areas like agrionics, medical instrumentation, optics, cockpit bases instrumentation, transducers etc

# Snapshot of ESDM Ecosystem in the Region



## ○ Research & Development

- C-DAC, Mohali is a premier R&D organization set-up in 1989 to train manpower in electronic design & technology
- Product and services include high performance computing, grid and cloud computing, cyber security and forensics, software technologies, multilingual & heritage computing



## ○ Electronics

- BEL is a manufacturer of diversified product portfolio ranging from defence focused state-of-the-art equipment to civil products such as electronic voting machine, tablet PC, solar power traffic signal system and access control systems
- Caters to domestic as well as 53 international customers across countries such as Japan, Germany, France, USA, UK and Vietnam



## ○ Telecom

- Punjab Communication Ltd is a Telecom and IT equipment manufacturer & solution provider
- Product range covers voice/data, multiplexers, power line carriers, broadband equipment and services etc
- It is a ISO 9001:2000 certified company with state of the art SMT manufacturing facility



## ○ Electronics

- CDIL is a renowned semiconductor manufacturer of silicon chips and devices since 1964 with state-of-the-art equipment
- It has a sales and distribution network in over 35 countries



# ADVANTAGE PUNJAB: THE NEXT GENERATION INVESTMENT DESTINATION





# Punjab: Strategically Located & Well Connected



Proximity to National Capital

**NEW DELHI**  
150 Miles

4 Hrs 

55 Min 



**Connected to Freight Corridor**  
for easy movement of goods

**Connected to all major metro cities**

# Robust Connectivity

Direct Flights Available from  
Amritsar & Mohali

- Sharjah (4 hrs)
- London (9 hrs)
- Tashkent (2.5 hrs)
- Dubai (4 hrs)
- Birmingham (9 hrs)
- Doha (4.5 hrs)
- Kuala Lumpur (6 hrs)
- Singapore (6 hrs)



- 100% Road Connectivity
- All Major Towns Connected with 4/6 Lane Highways
- Road Density 2 times higher than National Average

2<sup>nd</sup> highest rail density in India

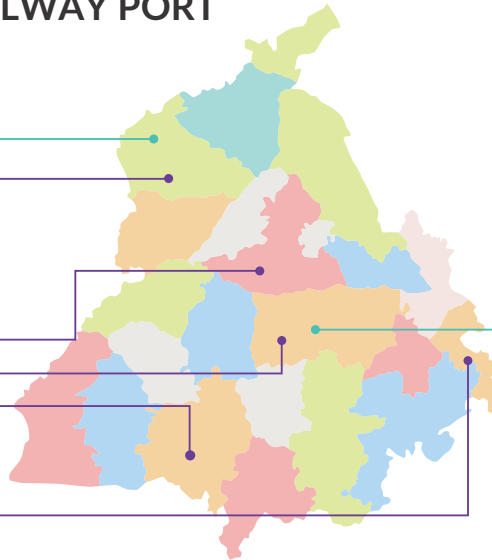
# Ranked 2<sup>nd</sup> in Ease of Logistics in India

## LAND & RAILWAY PORT

### Amritsar

### 5 ICDs

- Amritsar
- Jalandhar
- Ludhiana
- Bathinda
- Derabassi

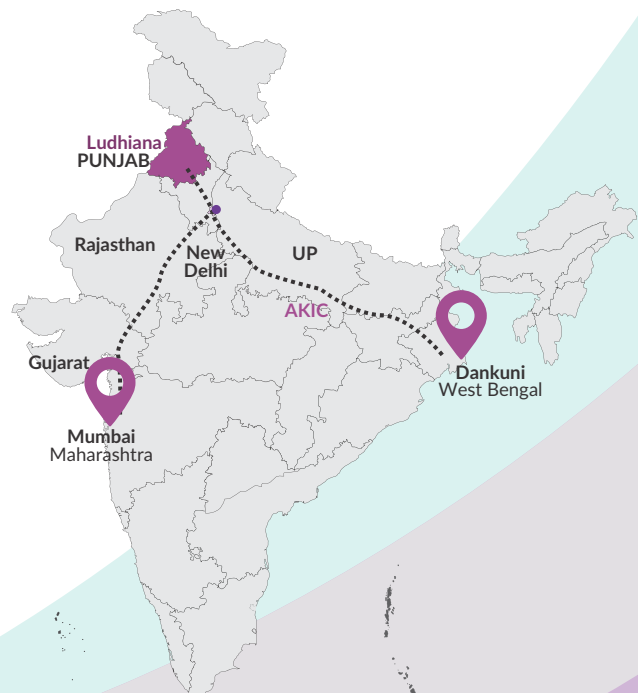


## MULTIMODAL LOGISTICS PARKS, Ludhiana

- Adani Logistics Ltd.
- Hind Terminal Pvt. Ltd. (Sharaf Group, UAE)
- Punjab Logistics Infrastructure Ltd (PLIL)

Ranked Best in India on Safety & Security of Cargo Movement

- **DEDICATED FREIGHT CORRIDORS**  
[Eastern & Western]  
(Intersection Point - Dadri)
- **Max Speed**  
46 to 62 Miles/Hr
- **Load Capacity Per Train**  
5300 to 13000 tonnes
- **Reduction in Freight Cost**  
By 33%



Source: LEADS Index 2019, Government of India



## Attractive Fiscal Incentives

IT/ITeS and ESDM sector has been identified as a thrust sector

### Anchor Units

- ✓ Net GST reimbursement for 15 years subject to 200% of FCI
- ✓ Employment generation subsidy @ INR 36,000/employee/year for a period of 5 years; INR 48,000/employee/year for women and SC/ST/OBC employees
- ✓ 100% exemption from CLU/EDC Charges
- ✓ Stamp Duty exemption up to 100%
- ✓ Property Tax Exemption up to 100% for 10 years
- ✓ Electricity Duty Exemption up to 100% for 10 years

### Capital Subsidy for IT/ITeS Units

50% of Fixed Capital Investment (FCI) subject to a ceiling of INR 2.5 crore per unit

**Additional 50% Top up of Capex Support for SPECS approved projects in Punjab**

Anchor unit- minimum FCI of INR 50 crore or minimum direct employment of 500 people

# Ease of Doing Business - Punjab Bureau of Investment Promotion



**UNIFIED  
REGULATOR**  
(23 Departments)



**INVESTMENT  
PROMOTION  
AGENCY**



**DEDICATED  
RELATIONSHIP  
OFFICER**



**DIGITAL  
APPROVALS**



**INVESTMENT  
PROMOTION**



**FISCAL INCENTIVE  
APPROVALS**

**ONE STOP OFFICE  
ADVANCED SINGLE WINDOW SYSTEM  
ONE OF ITS KIND IN INDIA**



**REGULATORY  
CLEARANCES**



**INVESTMENT  
FACILITATION**

## LEVEL

**STATE**

**DISTRICT**

## AUTHORITY

**CEO, PBIP**

**DC**

## UNITS

**LARGE**

**MSME UNITS**

# Quality Power at Low Cost

## ABUNDANT

Installed Capacity  
**13,902 MW**

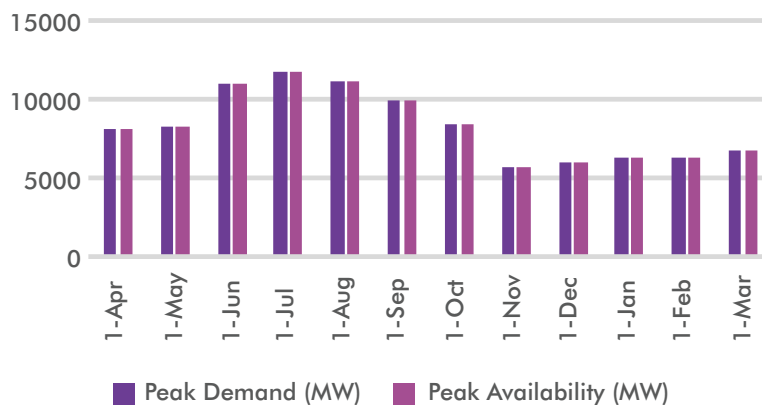
## LOW COST

Power @ INR **5.00**  
per unit

## QUALITY

T&D Losses  
**14.11 %**  
National Average 22 %

### No shortage even during peak demand



Month-wise power supply 2017-18  
(in terms of peak demand and availability)

# Peaceful & Competitive Workforce

## PEACEFUL

No Lockouts  
No Strikes  
Flexibility In Hiring  
No Domicile laws

## FRIENDLY

State  
Ranks 3rd on  
Interstate Migrant  
Policy Index 2019

## REFORMS

24x7  
Shifts Allowed  
Across  
Genders

**No disruptions in working environment**

# Skilled Human Capital

6000+ graduates in IT and allied fields

8000+ students trained in ESDM / IT

Institutes	Number	Total Annual Graduates
Engineering	89	45,013
Polytechnics	204	66,495
ITIs	344	70,000

## Courses offered

Artificial Intelligence

Machine Learning

Cloud Computing

Internet of Things

Robotic Process Automation

## Some Leading Institutions



Indian School of Business  
Mohali



IIM, Amritsar



IIT, Ropar



Thapar Institute of  
Engineering & Technology



PEC, Chandigarh



PTU, Jalandhar



B.R Ambedkar  
NIT, Jalandhar



Guru Nanak Dev  
University



LOVELY  
PROFESSIONAL  
UNIVERSITY

LPU, Jalandhar



Chitkara University



IISER, Mohali

# Ensuring Quality of Life

## Modern Health Infrastructure

- Ranks 2nd on National Health Index
- Home to leading health institutions such as PGI, Fortis, Max, Apollo

## Peaceful Environment

- Abundant green spaces around settlements
- Higher air quality than Delhi NCR

## Leisure Spaces



Trilium Mall

## Hotels



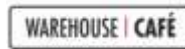
## Hospitals



## Schools



## Night Life



## Weekend Getaways



Shimla - 130 km



Chail - 106 km



Kasauli - 54 km

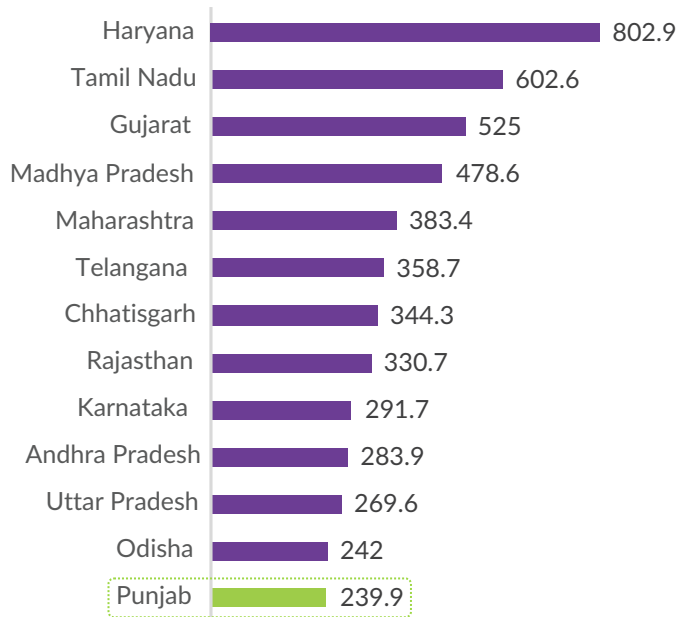


Parwanoo - 30 km

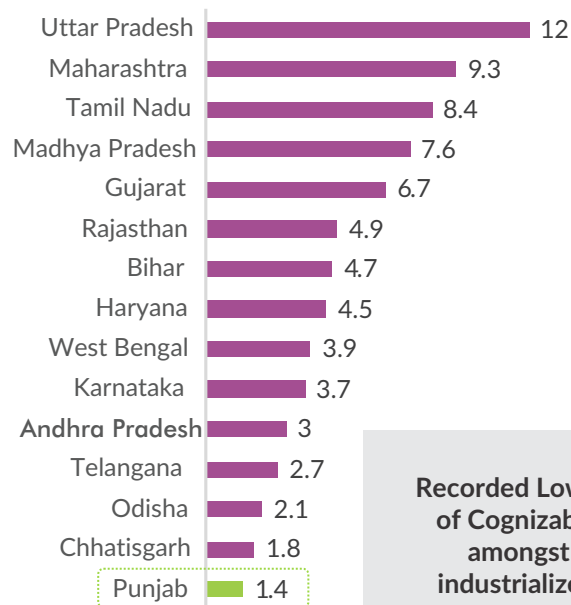


# Safest Place to do Business

Rate of Cognizable Crimes (2017)



Percentage Share of State for Cognizable Crime in India



Recorded Lowest Share of Cognizable Crime amongst major industrialized states of India



\*Source: As per NCRB 2017



# INVESTMENT OPPORTUNITIES





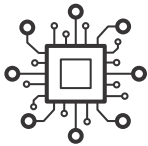
Software Development Centre



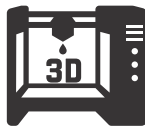
Artificial Intelligence & Machine Learning



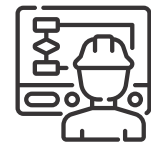
Smart Solutions-Blockchain, IoT etc



Semi Conductor Wafer Fab



3D Printing



Electronic Manufacturing



Engineering Designing



Agritech



Smart Logistics



R&D Labs



BPO/KPO



Data Centres



Website & Application Development



Animation, 3D, Gaming & Digital Entertainment



## STPI Amritsar: Expanding Horizon of ITeS Sector to Other Cities

- Facilities in STPI Amritsar Centre
  - Developed on 3 acre land with an estimated cost of INR 20 crore
  - State-of-the-art Network Operation Centre
  - State-of-the-art Plug N Play Incubation Facility
  - Raw Space for Incubation Facility
- Will provide services to Small and Medium Enterprises & spread IT/ITeS and BPO industry

### Advantage Amritsar

Hub of Diversified Industries

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Robust Connectivity

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Presence of Enormous Talent Pool

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Lower cost of operations

## Investors Voice



**Mr. UB Pravin Rao**  
COO/ Director



“ Mohali has a great ecosystem for the development of IT/ITeS services. Infosys has been operating in this region for many years and Invest Punjab has been extremely proactive and cooperative to facilitate the setting up of the Infosys campus at IT City, Mohali. The city has highly skilled manpower and is emerging as a big IT destination in India, comparable to leading global cities.



**Mr. Pankaj Gulati,**  
Executive President  
& COO



“ The proactive approach of the Invest Punjab team and their professional understanding of the industry functioning helps in promoting the industry in this area. Additional benefits offered by the Punjab Government, linked with SPECS and the PLI scheme of Government of India is an added advantage. The efforts of Invest Punjab with its investor friendly initiative and keenness to resolve industry issue have made the state a preferred investment destination for the ESDM industry.



**Mr. Pratap Aggarwal**  
Co-Founder and MD



“ Mohali has developed as a prominent city for software development and exports in the northern region. The city is open to expansion of major players in the IT/ITeS sector with ready availability of IT professionals.

## Investors Voice



**Mr. Kamaljit Singh**  
Senior Vice President



“ Punjab has abundant skilled IT/ITeS manpower which fosters the current ecosystem. The state government has proactively put IT/ITeS as a thrust area thereby providing attractive incentives



**Mr. Sanjay Raitani**  
Sr. Vice President



“ With support from Invest Punjab and Dept. of IT, Govt. of Punjab, Teleperformance successfully bid 1,600 seats in Mohali, in the IBPO Scheme. The quality of life and infrastructure in Mohali and its close proximity to International Airport were the key drivers for setting up our BPO operations in this city. Invest Punjab office and state authorities have been extremely cooperative in facilitating setting up of our newest campus in one of the prominent state-of-the-art buildings in Mohali.



**Dr. Deepak Kansal**  
Managing Director



“ Officials of Invest Punjab are thorough professionals and have provided us continuous support and handholding in our investment journey. Invest Punjab is a great single point of contact for new as well as expansions plans for industry. I being CII Vice-Chairman have seen other states also praise Invest Punjab for their continuous support for development of Industry in Punjab.  
All the best !!!”

## Major IT/ITES & ESDM Players in Punjab

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TechTier

Infosys



smartData  
ENTERPRISES  
Building Operations

airtel

SPAN

edifecs

Quark

DRISH  
INFOTECH

ieIMPACT  
Appraisal Data Entry Service

PUNCOM

Teleperformance  
each interaction matters

Megrisoft

EBO

netSMARTZ  
Global Technology Solutions Partner  
since 1999

EMERSON

XEAM

Gilard

FIS

MERITECH  
Building Technology. Powerful Results.

WINSHUTTLE



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Invest Punjab, 2nd Floor, Udyog Bhawan, Sector -17, Chandigarh, 160017 Punjab, India  
Email: [info@investpunjab.gov.in](mailto:info@investpunjab.gov.in) | Website: [www.investpunjab.gov.in](http://www.investpunjab.gov.in)

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