



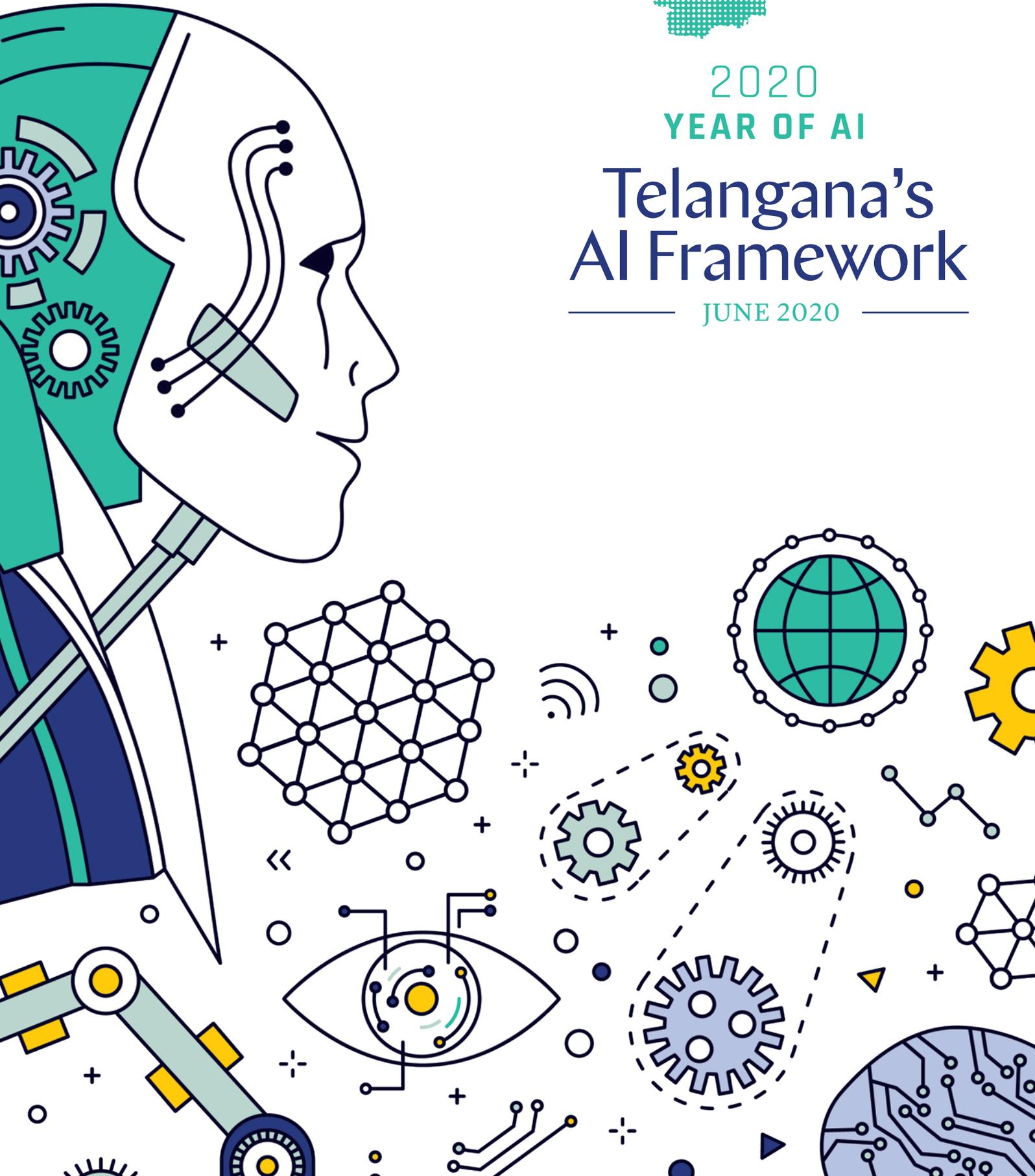
ITE&C Dept.,  
Govt. of Telangana.



2020  
YEAR OF AI

# Telangana's AI Framework

JUNE 2020





# Minister's Message

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## K. Taraka Rama Rao

Hon'ble Minister of ITE&C, I&C and MA&UD, Government of Telangana.

In the IT Policy released by Government of Telangana in April 2016, it was envisioned that Telangana should be recognized as a leader in Emerging Technologies. I am glad that 4 years since then, Government of Telangana has released a string of sectoral policies – Cyber Security, Open Data, Data Analytics, e-Waste Management, Internet of Things, Drones and Blockchain. All the initiatives conceptualized and henceforth driven by the state's Emerging Technologies Wing, has positioned Telangana on the global leadership map in emerging technologies.

Leveraging the abundance of data and the ever-increasing computing power, AI is impacting the way we work, the way we interact with the world and the way we live our lives. The AI revolution is already upon us. No business can stay untouched. It is expected to transform the global economy and early adopters will have first-mover advantage.

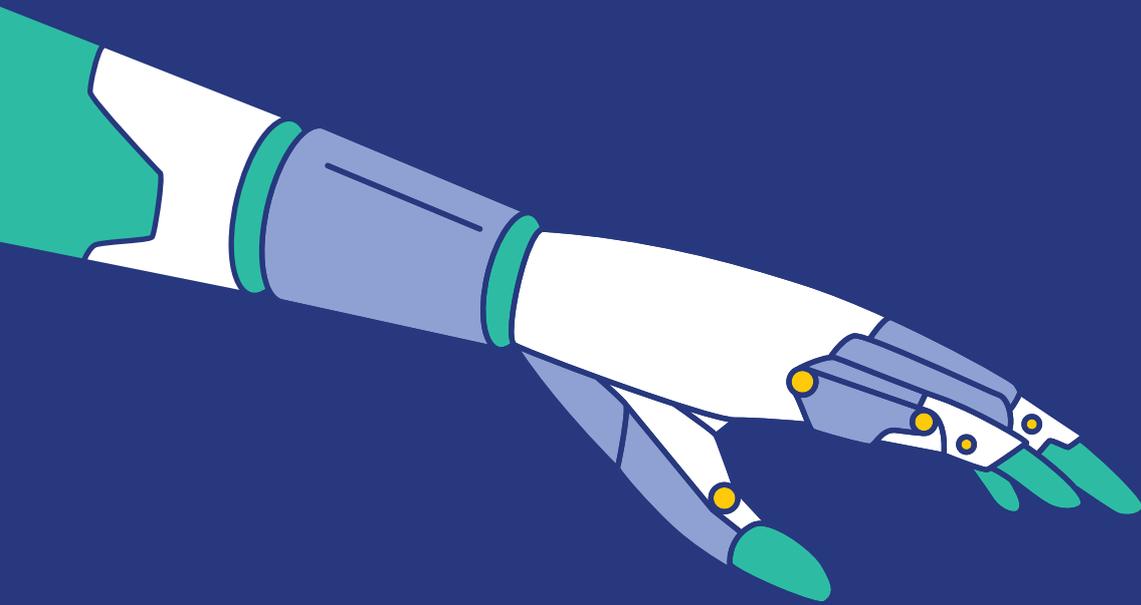
The global leadership needs to make efforts to reap the socio-economic benefits of AI. I am a strong believer of leveraging emerging technologies for social good. Artificially intelligent computer systems are going to

guide all major policy decisions regarding management of our economy, food production, security, healthcare, and other areas. Artificial Intelligence has the potential to disrupt the way we solve socio-economic challenges, and open new channels of innovation.

This transformative power of AI is beginning to be a reality. The Hon'ble Prime Minister had mentioned that technology is evolving at such a fast pace that very soon artificial intelligence will dominate our way of life. India offers the best possible test bed and a plethora of use cases for building AI solutions fulfilling the inclusive AI criteria.

Government of Telangana has co-designed this framework document with the help of pioneers of industry, academia, start-ups, and policy advisors to provide a conducive environment - supporting the ideation, development, and responsible deployment of Artificial Intelligence for social impact.

I am glad to have launched 2020 as Telangana's Year of AI along with ecosystem partners. I look forward towards your continued support to Telangana in realizing our vision.



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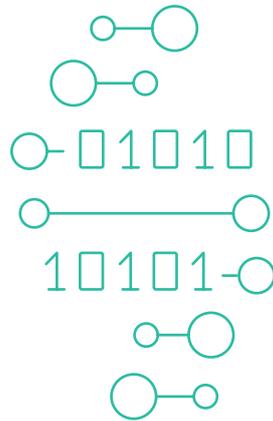
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# Preface

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We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation due to Industrial Revolution 4.0 will be unlike anything humankind has experienced before. The advancement of technology has not only modified our approach towards traditional sectors like HealthCare, Agriculture, Mobility, Finance, Logistics but has redefined the way we live and our daily activities.



Standing at the core of the fourth industrial revolution is Artificial Intelligence (AI), which is becoming an integral part of every single facet of our lives. Artificial Intelligence by definition is “the ability of a machine or computer system to copy human intelligence processes, learn from experiences, adapt to new information and perform human-like activities.”

We, as humans have evolved years based on our ability to process our experiences, information and have used this to our advantage. With a voluminous increase in data during the third industrial revolutions, the amount of digital data available with us is unprecedented. For AI enabled processes and machines, all this data is equivalent to what experiences and information has been to humans.

**Following are the key factors that have enabled the growth and expansion of Artificial Intelligence:**

## **The volume of digital data**

Currently, there are more than 2 connected devices for each and every person in the world. The number of connected devices has crossed the total population across the globe in 2008.

## **Ease of storing the data**

The cost of storing information is approaching zero - storing 1GB costs an average of less than \$0.03 a year today, compared to more than \$10,000 20 years ago.

## **Exponential improvement of computing power**

It is estimated that the computing power needed to train AI is now rising seven times faster than ever before. The computing power of systems used for man’s first expedition to moon is at least 4 times less powerful than a current smart phone.

With all the factors favorable for an exponential growth, Artificial Intelligence is expected to be the primary technology in this decade and to be a part of all the industries. As the industries embark upon the journey to make Artificial Intelligence an integral part of their operations, decision making and marketing, Government will be playing a pivotal role. Governments are responsible for providing a conducive ecosystem for research and innovation, companies, startups, training organizations, regulatory bodies for a technology like Artificial Intelligence to prosper.

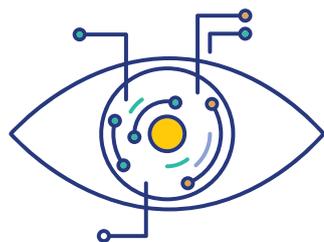


# Vision

*Establish Telangana as a global hub for Artificial Intelligence and foster social innovation.*

**Artificial Intelligence is one of the fastest-growing technologies, according to the latest report by Grand View Research, Inc. the market size of Artificial Intelligence is expected to reach ~USD 391 Billion by 2025. The market is also anticipated to expand at a CAGR of 46.2% from 2019 to 2025.**

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The Government of Telangana has been one of the frontrunners in adopting emerging technologies and it notices the central role that Artificial Intelligence plays in building a conducive ecosystem for emerging technologies. Aligning with the vision to be a leader in emerging technologies, the Government of Telangana in collaboration with all the stakeholders like researchers, industrialists, startups, educational institutions, government departments, and other organizations has ideated initiatives that will catalyze the adoption of Artificial Intelligence in Telangana.

In 2014, Telangana had envisioned to double its IT exports in a span of 5 years and has successfully achieved this target. Continuing to deliver on our own high expectations, Telangana achieved 17.93% growth in IT/ITeS exports (2019-20) which was more than double the national average (8.09%; 2019-20), establishing Telangana's IT leadership in India.

**As a first step towards establishing Telangana as a global hub for Artificial Intelligence, the government has set an ambitious target of ensuring that AI contributes \$5 Billion to the state's IT exports by 2025.**

In the process of achieving the above-set target, the Government of Telangana is also keen on ensuring that all AI products and services will be deployed responsibly and ethically. Additionally, the government understands that collaborative efforts across the ecosystem can be helpful to solve some of the most challenging and biggest social problems prevailing using AI. To effectively solve these problems, the government envisions creating a collaborative ecosystem that the researchers and experts could use for solving the most critical problems.



# AI Framework

In an effort to position Telangana as a global hub for AI and to achieve the above discussed objectives, government consulted various stakeholders from industry, academia, civil society, startups and other domain experts to come up with the state’s strategy which is summarized in the following framework:

## PILLARS



Data Exchange Platform and HPAIC



Skilling and Education



Governance, Ethics and Privacy



Research And Innovation



Enabling Adoption and Community Collaboration



AI Innvestment Fund

## FOCUS AREAS



Healthcare



Agriculture



Mobility



Education



Law Enforcement

These focus areas have been identified based on the impact that can be created and the applicability of Artificial Intelligence in the respective fields. In addition, the state will also focus on using AI to enhance citizen service delivery across departments. For the planning and execution of all the initiatives and projects identified in this strategy framework, Government of Telangana has set up a body for Artificial Intelligence in collaboration with NASSCOM. **T-AIM (Telangana’s AI Mission)** will assist the state in accelerating the process of powering Telangana to be a leading Global Artificial Intelligence Innovation hub.

Towards these efforts, Government of Telangana will establish the **AI-Innvestment Fund**, a humanitarian investment fund dedicated to AI Innovation for Social Good. The fund will capture the opportunity trinity of emerging AI economy, rise of impact investing and tech investments.

**The objectives of the fund are as follows:**

- Raising funds for “AI for social good” startups which comply ESG<sup>1</sup> criteria.
- Financing projects with a theme of “AI for social good”.

1: ESG Criteria (Environmental, Social and Governance): Standard criteria in measuring the sustainability and societal impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies. ESG investing is estimated at over \$20 trillion in AUM or around a quarter of all professionally managed assets around the world. (Forbes, 2018)





# Key Pillars

01.  
Data Exchange  
Platform and HPAIC

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02.  
Skilling and Education

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03.  
Governance, Ethics and Privacy

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04.  
Research and Innovation

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05.  
Enabling Adoption and  
Community Collaboration

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06.  
AI-Innvestment Fund

# 01.

## Data Exchange Platform and HPAIC



Digital data to the fourth industrial revolution is what steam engine has been to the first industrial revolution, what electricity has been to the second industrial revolution and what digitization has been to the third industrial revolution. The availability of data and right set of infrastructure is even more critical in case of Artificial Intelligence compared to any other technology. To support the companies, researchers and startups in AI, Government of Telangana has identified the key supports required and detailed it.

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### State's Open Data Exchange Platform

Telangana formulated its Open Data Policy in 2016. Telangana's Open Data Portal ([www.data.telangana.gov.in](http://www.data.telangana.gov.in)) currently hosts 192 Datasets. These include Global Transit Feed Specification (GTFS) datasets from the Hyderabad Metro Rail Limited (HMRL) and Multi Modal Transit System (MMTS). Telangana State Road Transportation Corporation (TSRTC) is digitizing the route maps of Hyderabad city bus network which shall be available for public consumption very soon.

Collaboration across departments, companies, startups and research organizations is important to increase the quality and volume of data that can be used to train Artificial Intelligence algorithms. After building the core

datasets from government and implementing the data provider certifications, a Data Exchange Platform will be operated by government where all the AI partners can upload relevant and useful datasets. An Open Data Exchange Platform will increase the cross collaboration across various stakeholders and will foster innovation in the space of Artificial Intelligence. For ease of use, data visualization tools and data narratives will be enabled for this data. APIs will also be developed to provide access to static and real time data. Access to data will be enabled for companies that have presence in the state at a very nominal pay per use basis. Companies that will contribute datasets to this portal will get free access for a limited period.

### Creating Public Sector Datasets

Data availability is the primary prerequisite for Artificial Intelligence. While certain domain specific data sets are available across the world, but Indian problems are different and therefore India specific data sets owned by various government departments would be one of the most invaluable datasets for all the stakeholders. Government

of Telangana will collaborate with educational and research institutes to identify such relevant datasets and will provide them in the state's open data platform.

Government aims to ensure that the datasets of the identified focus areas are created and are available for public use in the next 2 years.





### Collaboration with Corporates to Create Datasets

The AI of today is heavily dependent on the collection, usage, and processing of data. In the process of collecting useful datasets, the government will collaborate with, Research institutions, Industries, corporate bodies and Entrepreneurs for collating datasets that can be shared with a wider pool of innovators. The private sector will be encouraged to collaborate with the government to share the data.

### Data Provider Certifications

As discussed above, data plays a vital role in developing AI services. But, it is equally important to ensure that the datasets are safe, ethical and of high-quality. Hence, the state will initiate a Certification program for the data providers (Government, Research institutions, Industry and corporate bodies, Entrepreneurs) which focuses on the theme of ethics for shared data and would be as per the Data Privacy Law that is to be enacted by the government of India.

### Establishing a High-Performance AI Computing Facility

Supercomputers, or more specifically put, computers with accelerated hardware, are capable of increasing the speed of the system that governs Artificial Intelligence. With the continuous increase in the volume of data, the requirement for High-Performance AI Computing facilities is constantly increasing. Access to High-Performance AI Computing (HPAIC) infrastructure is becoming an entry barrier for most of the startups.

ITE&C Department has been discussing with IIT Hyderabad, JNTU Hyderabad, CDAC and other institutes, to offer High-Performance AI Computing (HPAIC) infrastructure as a shared facility to boost local AI-innovation capacities of startups, academia, SMEs and for social impact projects in Telangana. These would be made available at reasonable costs, utilizing computing resources specifically allotted for external use.

## 02.

# Skilling and Education

**Availability of quality and efficient human resources is going to be one of the critical factors in making a destination a global hub for Artificial Intelligence. Due to the efforts over the last five years, the state of Telangana is positioned well to jump on to the wagon of Artificial Intelligence Government targets to increase the AI workforce by at least 30,000 by the end of 2022.**

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Special programs are ideated, and initiatives are planned to build the AI oriented talent pool in Telangana. Several initiatives listed in this pillar will be executed in close coordination with Telangana Academy for Skill and Knowledge (TASK). TASK is a Government of Telangana initiative bridging the skills gap in students, and offering quality human resources to the industry.

### AI-focused upskilling

Data labelling, annotation, preparation, structuring and cleansing tasks account for more than 80% of the time involved in most AI and machine-learning projects. The global market for third-party Data Labeling solutions is \$1.7B in 2019 growing to over \$4.1B by 2024. By 2024, over 30% of current labeling tasks will be automated or performed by AI systems. However, the human in the loop is not going away any time soon for labeling and quality control. Government of Telangana will leverage the existing massive BPO workforce in Telangana and train them for data labelling roles to capture this opportunity. These programs will create a pipeline of job opportunities for tier-II cities.



## AI Training Centers in Tier-II Cities

Hyderabad has co-located AI research hubs in premier academic institutes and a vibrant innovation eco-system offering hands-on opportunities to learn AI. The state envisions to ensure that the benefits of AI reach tier II cities of the state as well, which is primarily possible by education. The two training centers that are

targeted for the 1st year of policy are Warangal and Karimnagar. State will partner with industry experts:

- To offer hands-on AI training workshops for faculty.
- To offer periodic AI guest lecture series for college students.

## AI Startup Internship Program

State will partner with incubators/ accelerators across the state to offer Telangana's college students the opportunities to work with AI startups, and receive college credits on successful completion of internship. The program would culminate with a Hackathon - to foster innovation, applied learning and peer learning.

## AI Talent Alignment

AI focused curriculum and faculty development programs would be developed based on inputs given by AI product companies, to bridge the skill-gap in the job market. These courses would be delivered across the state in partnership with skilling partners, including Telangana Academy for Skill and Knowledge (TASK).

## AI Summer School

State would partner with national/international premier academic institutes to design an on-campus project-based AI Summer School program - especially for students from Tier-II cities of Telangana. Students and working professionals will be provided a subsidized enrollment to the summer schools based on merit.

## Foundation of AI for All

A set of courses which can be offered for free would be posted on various state outlets, including TSAT channel. Moreover, the state would organize webinars across Telangana universities, featuring pioneers of AI.

## Micro-credentials

AI job market seeks candidates with focused professional skill sets. State would partner with premier academic institutions to offer micro-credentials - low cost and short duration specialization courses - which would enhance employability of Telangana's IT talent pool.

# 03.

## Governance, Ethics and Privacy

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Availability and access to accurate data is the cornerstone for any Artificial Intelligence related research. And with Artificial Intelligence becoming an integral component of day to day life, we must ensure that data which is used to run all the AI algorithms is trustworthy, fair and ethical. Protecting the privacy of citizens of Telangana is of utmost importance to the government of Telangana. Government envisions taking all the necessary steps to ensure highest level of transparency.

### Artificial Intelligence Ethics Group

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The government must ensure that artificial intelligence and machine learning algorithms are as ethical as they are intelligent. A working committee will be established to identify the key AI ethical concerns - Accountability, Bias, Transparency, Privacy, Security and Safety - and develop sector specific guidelines for AI use cases. The committee will be led by academicians from top institutes and constitutes of various representatives from government, global companies, startups and industry and research bodies like WEF, NASSCOM and others.

The working committee would be releasing a set of advisory guidelines, codes of practice, governance frameworks and will recommend various mechanisms to operationalize the recommendations. This would ensure ethical usage of data and bias-free decision-making algorithms to safeguard the privacy of citizens. Companies operating using the data published by government or affiliated authorities will be required to share a compliance report detailing the ethical and appropriate usage of data.

## Industry-consumer-researcher roundtable to come up with guidelines for ethical usage of data

Data is the major requirement in AI for developing algorithms in the system. Data governance is crucial to ethical AI; organisations developing AI technologies need to ensure they have strong data governance foundations or their AI applications risk being fed with inappropriate data. Hence the data collected needs to be ethically procured and used. For this the state will be developing guidelines for data integrity and retention policies. Moreover, data security measures applicable to the service including how data is collected using the service will be securely stored and accessed. The state government will be defining its data governance guidelines, in alignment with the Personal Data Protection Bill, 2019.

These guidelines would be further detailed out in consultation with industry, consumer and ethics experts.

## Government AI Procurement Guidelines

In consultation with the AI Ethics Group, the government will adopt recommended AI procurement guidelines. These may include encouraging the use of explainable AI to ensure that AI decision-making (i.e. the decisions and/or insights generated by AI) is as transparent as possible. The government may also explore mechanisms to enable interpretability of the algorithms internally and externally as a means of establishing accountability and contestability.

## Data ethics course

As AI applications and its use increases, Data ethics becomes a necessity for any organization or state. A mandatory data ethics course will be offered to employees of all IT companies which are utilizing the datasets published and generated by government of Telangana.

## Training the user government agencies

Operational or service staff must have enough knowledge or training on the solution to understand how to use it. The training must include, but not be limited to: the capabilities and limitations of the AI service, procedures to interpret and act on the output of the service; and

as applicable to the deployment context, understand where human review is required for decisions that produce legal effects concerning individuals.

These guidelines would be further detailed out in the AI ethics guidelines to be released by the AI Ethics Group.



## 04. Research and Innovation

**Research acts as a core for any ecosystem to advance in Artificial Intelligence. With the technology in a constantly evolving stage, researchers play an even more important role in establishing large scale AI-based projects in the state.**

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Several initiatives listed in this pillar will be executed in close coordination with Research and Innovation Circle Hyderabad (RICH). RICH is a Government of Telangana initiative which facilitates the process of taking research to market.

### AI innovation cohorts

State will set up AI innovation cohorts in partnership with the industry, in priority sectors of Telangana - Pharma City (Manufacturing), Defense and Aerospace, Agriculture and Allied sectors, Energy & Green Technology sector, Automotive & Automobiles, Engineering and Capital Goods, Precision engineering and Textiles & Apparels. Each cohort will be mentored by industry-specific researchers, industrialists, customers, data scientists and other successful startups.

Special focus would be on **AI innovation in Advanced Manufacturing** – Digital Twin, Smart Asset, Smart Procurement, Smart Containers, Predictive Maintenance and Product Quality-as-a-Service.

### Global Applied AI R&D Centres in Telangana

Leveraging Hyderabad's co-located AI research hubs in premier academic institutes and a vibrant talent-led innovation eco-system, the state aims to attract renowned applied AI R&D Centres to Telangana. It is observed globally, that close collaboration with such centres help to develop a high-quality talent pool and subsequently with the emergence of world-class AI startups.

### Global Academic Collaboration

The state will enter into partnerships with globally reputed universities/ research centers to facilitate cross learning - via foreign exchange programs for faculty and research students. Government of Telangana will also rope in premier educational institutions in the state for the same



### Active Innovation Ecosystem

State has partnered with 12 AI ecosystem enablers to compile a calendar for 2020: Year of AI with 74 events and counting. The state will also enable an active AI innovation ecosystem with a series of Hackathons, National Challenges, Boot Camps and Accelerators.

### R&D fellowship

Government will enter a triple helix partnership model - with Academia and Corporates - to design research fellowships for graduate and Postdoctoral studies. Each year, 10 fellowships would be sponsored by the government in partnership with the industry.

### Patenting Guidelines for AI-based Innovations

It is necessary to support the startups/SMEs/innovators which come out with new Intellectual Property. Many of the innovators don't protect their own intellectual property because of lack of awareness and process expertise. The government will engage experts from techno-legal domain to educate innovators about the importance and procedure of IPR filing.

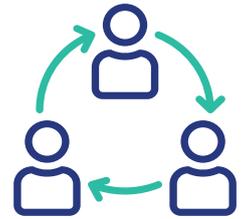
### Government-priority Applied Research

Government will offer research grants to academicians working in applied AI for focus areas of the state.



## 05.

# Enabling Adoption and Community Collaboration



**In a technology like Artificial Intelligence which is still in an evolution phase, startups play an important role in identifying all the potential use cases and applications of the technology. Encouraging the startups and larger corporates to innovate and creating a conducive environment for the same is one of the key responsibilities of governments.**

### GovTech Catalyst and GovTech projects

There is a need to fill the gap between private sector innovators and public sector organizations to solve some of the government's hardest problems as they have the required capability and resources to do so. To bridge this gap, government will introduce Govtech catalyst in which a list of challenges or citizen services will be chosen by a cross-government board, and then they will be turned into competitions, which suppliers would bid to solve. Through this mentorship will be given by the public sector organizations to take measured risks wherein an organization would do

thorough research on a problem from the list of problems which the government is trying to solve and come up with the scope of the project as well as the Minimum Viable Product (MVP). This can be divided into a few phases wherein initially the public sector will propose complex problems that a few suppliers are funded to work on for pre-specified months. If results are promising, Government would be procuring the solution from the startup and be the first customer of the solution. Government will look forward to run around 4 such programs each year.

### SME platform

There are around 23 lakh MSMEs in Telangana, who have played a significant role in terms of creating employment opportunities along with innovation. Being more flexible they can cater to very specific needs and adapt to the technological changes faster. Proven AI products developed by a startup that are applicable to a wider pool of SMEs will be made available in common market space. SMEs can take advantage of this to improve and accelerate their businesses.

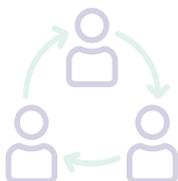
### AI recognition newsletter with companies doing well

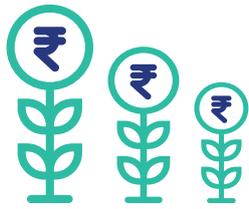
Many companies and Start-ups are working for the enhancement of AI in the state. In the process of recognizing companies doing well in AI activities, the State government will initiate an AI Newsletter. AI Newsletter will be published on a quarterly basis and will capture the information concerning the activities of a business or an organization, which is sent to its members, customers, or subscribers.

### Corporate Startup Matchmaking

A program will be designed in collaboration with state-run incubators to establish a channel between the corporates and startups for solving AI related challenges. The program envisions to reduce and remove all the potential barriers that a corporates face while engaging with startups. A comprehensive list of AI based startups and their areas of expertise will be shared with corporates and industry

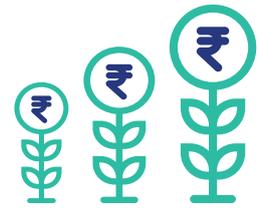
bodies. In order to facilitate the matchmaking a corporate roundtable will be organized by the government in coordination with the state-run incubators on a quarterly basis where corporates can interact with startups and share few of the major challenges in their respective sectors. Each roundtable will be focused on discussion regarding ways AI based solutions can be incorporated in the particular sector.





06.

# AI-Innovation Fund



Establishing, raising, and managing a humanitarian investment fund dedicated to AI Innovation for Social Impact in Telangana’s priority sectors – Agriculture, Healthcare, Education, Mobility and Law Enforcement. The initiative aims to create a pipeline of investable opportunities and challenge investors to rethink their role in driving social impact for the greater good.

## Desired Social Impact Outcomes

The fund will strive to achieve the following qualitative sectoral goals using AI products and services:

**Agriculture:** Improving the income-generating capabilities of local farmers, thereby enhancing their families’ and communities’ quality of life, while also increasing the state’s domestic production, food security and self-sustainability.

**Healthcare:** Transforming the healthcare industry while promoting healthy lives and ensuring access to affordable quality care for all.

**Education:** Improving access to high-quality primary education and industry-oriented skilling at affordable prices.

**Mobility:** Accelerating the transition to safer, cleaner, and more inclusive transportation systems, optimizing the delivery of goods, and ensuring access to mobility for everyone

**Law and Order:** Provide access to justice for all and build effective, efficient, accountable, and inclusive enforcement systems at all levels.



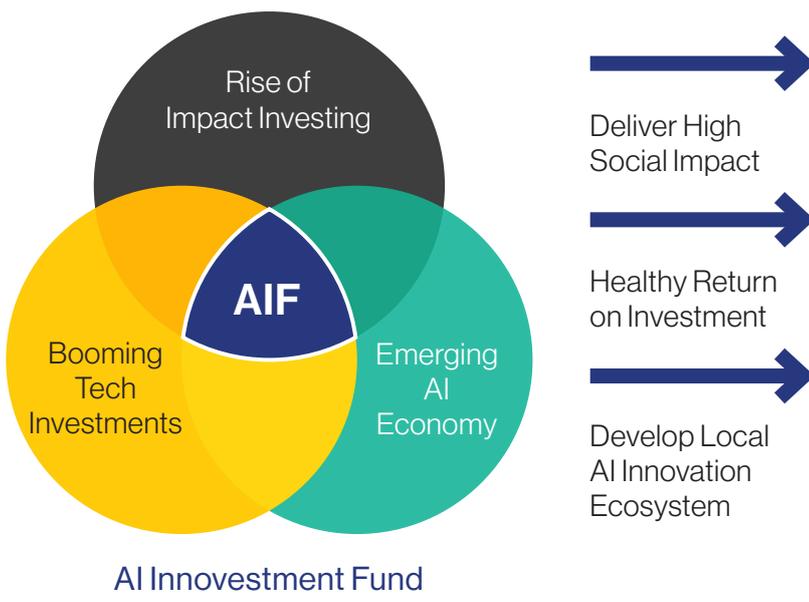
### The objectives of the fund

Raising funds for “AI for social good” startups which comply ESG<sup>2</sup> criteria.

Financing projects with a theme of “AI for social good”.

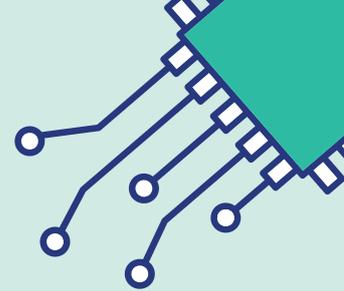
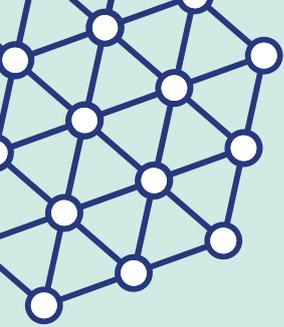
## Opportunity Trinity

Impact Investing, Tech Investing and AI Economy



2: ESG Criteria (Environmental, Social and Governance): Standard criteria in measuring the sustainability and societal impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies. ESG investing is estimated at over \$20 trillion in AUM or around a quarter of all professionally managed assets around the world. (Forbes, 2018)





# Incentives

## 01. Data and Technology

**Access to Public Data:** The state of Telangana in partnership with academia and industry will enhance its data portal for making available anonymized public data. For ease of use, data visualization tools and data narratives will be enabled for this data. APIs will also be developed to provide access to static and real time data. Access to data will be enabled for companies that have presence in the state at a very nominal pay per use basis. Companies that will contribute datasets to this portal will get free access for a limited period.

**AI MakerPark** will be set up by the state to bring together the AI innovators wherein apart from the physical infrastructure, companies will have access to a suite of AI tools, HPAIC infrastructure, cloud credits necessary for research and further development in AI.

## 02. Innovation and Entrepreneurship

Accelerating the existing AI startups in the state as well as

attracting new AI startups to the state is a key priority of the AI policy. Specific initiatives under this will include:

### AI Startups:

The key priority areas for Startups is funding, acceleration, go to market and data / technology infrastructure. To attract AI startups in the state, the following maybe considered:

- 100% reimbursement of State Goods and Services Tax (SGST) for a period of three years to start-ups with revenues less than INR 5 Crores.
- 75% reimbursement for travel and ticket costs for selected AI conferences across the globe subject to a maximum of INR 2 Lakhs per year per start-up in the first 2 years of operation for selected start-ups.
- R&D grant up to 10% of the R&D expenses or up to 2% of the annual turnover whichever is lesser to the start-ups innovating in AI technology in Telangana
- One-time start-up grant of upto INR 10 Lakhs, wherever applicable, will be provided to a maximum of 10 AI start-ups per year for the next three years. These start-ups will be selected

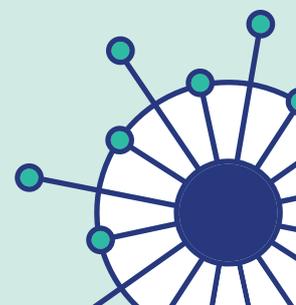
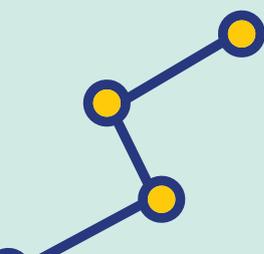
based on certain selection criteria closely developed with the industry. Selected startups will be mentored by state's AI industry partners.

- To better support innovation in this technology, further incentives in the areas of Patent Filing and Quality Certification will be made available:
  - Assistance in Patent Filing – Reimbursement of 50% of the cost of filing patents, subject to a maximum of INR 5 Lakhs.
  - Costs for Quality Certifications – 50% subsidy on the expenses incurred for quality certification limited to a maximum of INR 5 Lakhs
  - 25% reimbursement on internet charges up to a maximum of INR 2.5 Lakhs per year for the first 3 years

### International MNCs setting up AI Centers:

The state would focus on attracting international MNCs to set up centers in the state and would provide following incentives:

- 25% subsidy on lease rentals up to INR 5,00,000 per annum for





the first 3 years of operations.

- 50% subsidy on the exhibition rentals for the SMEs (firms operating out of Telangana) participating in national or international exhibitions limited to 9 Sq. mts of space.
- A tailor-made incentive package will be provided for mega AI projects or marquee AI companies.
- Land will be allotted at subsidized rates to AI companies by Telangana State Industrial Infrastructure Corporation Limited, the guidelines specified for regular ICT companies in terms of annual revenue, investment promises, employment creation promises will be partially relaxed for AI firms.
- For all the research projects sponsored by companies in technical universities, an equal amount of investment will be made by the govt. for up to INR 5 Lakhs per year for next three years.
- Access to skilled talent through university partnerships; innovative program of apprenticeship, enable global talent to work in the state with access to expat visas.

### **Incentives to Innovation entities:**

- Any organization conducting a AI related conference/event can approach the Government to seek sponsorship support. The Government will offer a sponsorship of INR 1-25 Lakhs based on the scale, quality, and uniqueness of the event
- All AI related communities in Hyderabad will be provided venues for meetups, gatherings, and small-scale events at no or subsidized cost

### **03. Talent and Skills**

Access to high quality talent is a key imperative for companies to set up operations in any area. Incentives that the state can look at:

- AI scholarships: Students from the state who complete advanced AI curricula with exceptional performance, as defined by the state government, may be eligible for a scholarship up to Rs 10,000 per student. Similar incentives would be available for faculty to upgrade their skills.

- International collaborations: Enable local universities through grants to build partnerships and exchange programs with international universities to get the best courseware, visiting faculty and international internship opportunities.

### **04. Research and Development**

- AI Fellowships: The state will announce AI Fellowships for upto 5 students from India and globally, to work on high-end use cases in partnership with local research / academic organizations. The fellows will be entitled to a grant of USD 10,000 for 1 year.
- Global and Indian companies that set up high end AI R&D labs will be eligible for grants, zero duty on hardware and software imports, access to R&D credits

The state government would be designing even more attractive incentive packages in collaboration with DST (Department of Science and Technology) and MeitY (Ministry of Electronics and Information Technology) .



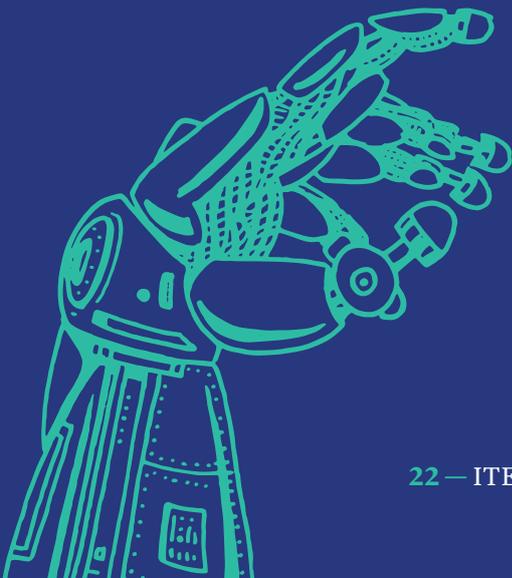


# Non-Financial Incentives

**By virtue of working in the technology, the AI product firms, considered as IT units below ICT industry incentives, are automatically applicable to AI firms operating out of Telangana.**

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- Firms are exempt from the purview of The Pollution Control Act, except in respect of IT Parks/IT SEZ campuses with built up areas more than 20,000 sq. mt.
- Firms are exempt from inspections under Acts and the Rules framed thereunder, barring inspections arising out of complaints. The firms are permitted to self-certificates in the prescribed formats.
  - The factories Act 1948
  - The Maternity Benefit Act 1961
  - The Telangana Shops and Establishment Act 1988
  - The Contract Labour Act (Regulation and Abolition) Act 1970
- The Payment of Wages Act 1936
- The Minimum Wages Act 1948
- The Employee Exchanges (Compulsory Notification of Vacancies) Act 1959
- General permission will be provided for three shift operations with women working in the night as these firms provide services to global customers
- Firms services will be declared as essential services under Telangana State Essential Services Maintenance Act







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