

# AI in Business

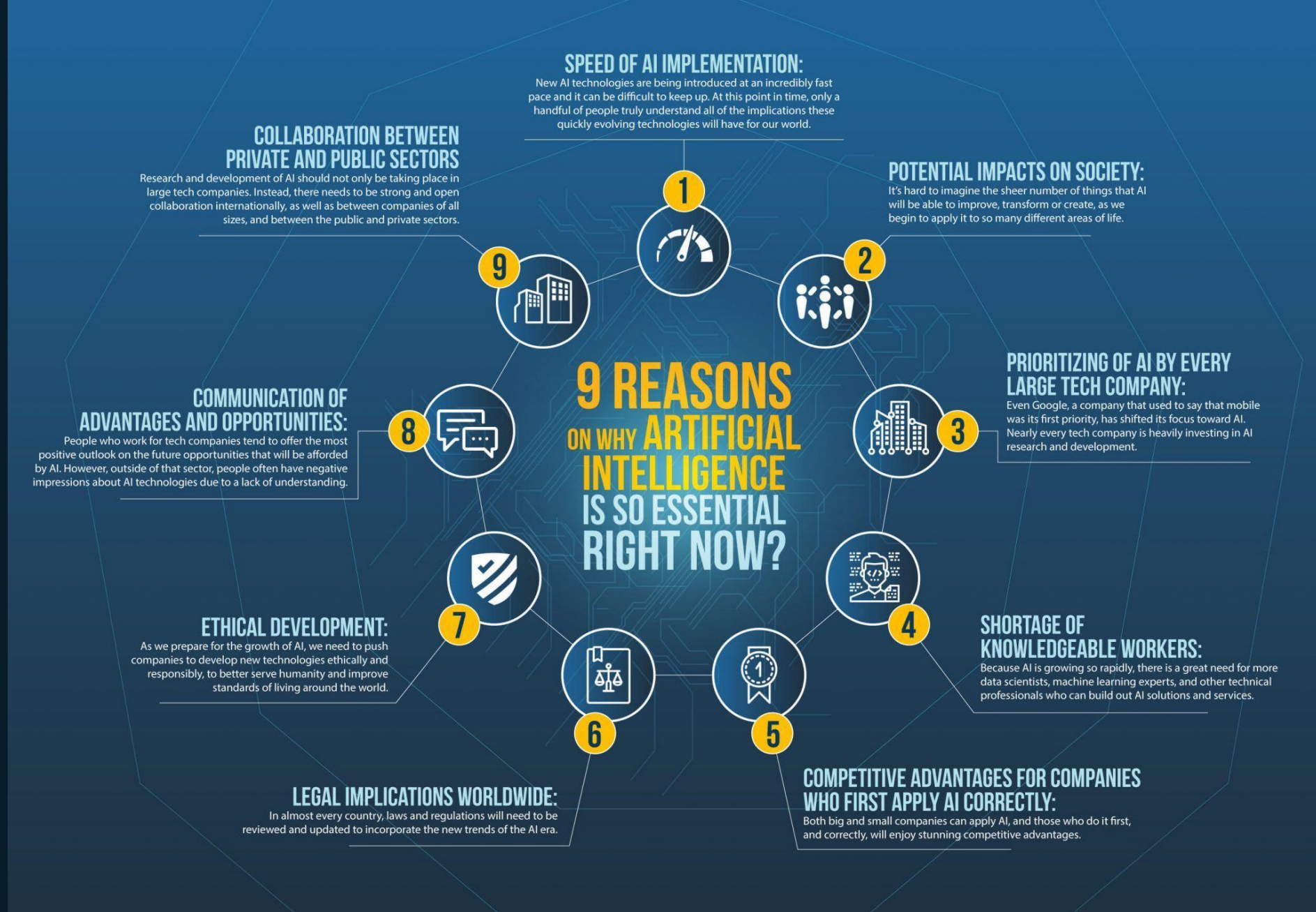
Lesson 2: AI Opportunities in Business

Topic : Global, Bangladesh and Organizations



# Why now

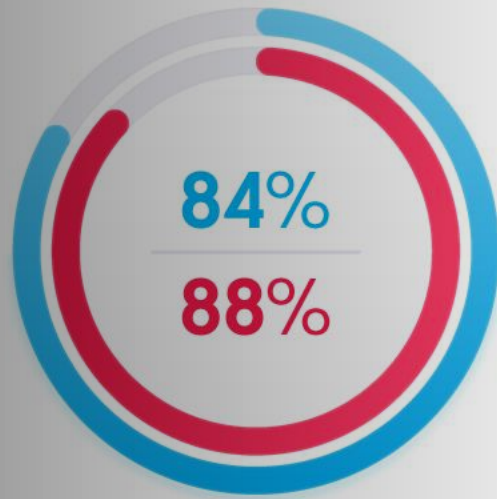
# Now or Never?



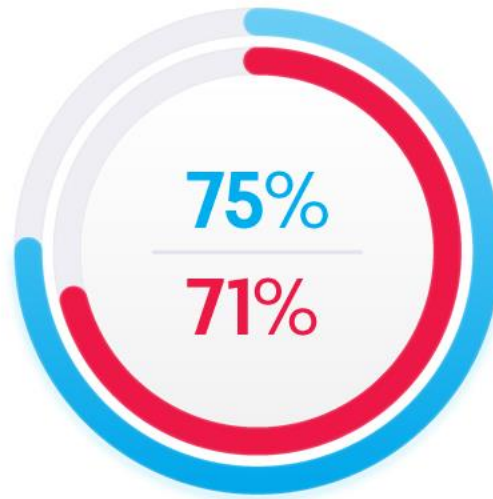
# Responsive towards AI from Business

GLOBAL

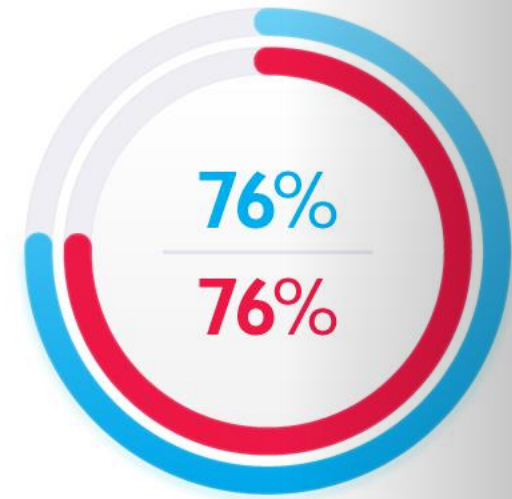
UNITED STATES



of executives say they won't achieve their growth objectives without scaling AI



of executives believe they risk going out of business in 5 years if they don't scale scaling AI



of executives acknowledge they know how to pilot, but struggle to scale AI across the business



# AI-powered cost reduction can help you to:



ensure your  
production  
processes run  
automatically,  
consistently, and  
effectively



reduce errors  
and minimize  
mistakes



free up the time  
of your  
employees for  
higher-level  
tasks



make your  
company more  
efficient and  
productive

# Benefits for businesses of using AI for price optimization. AI can help you to:



create and  
effectively  
implement price  
optimization  
strategies



increase  
customer loyalty  
and increase  
profit



boost your  
company growth  
by offering  
competitive  
prices



control the  
competition and  
prevent losing  
market share

# AI-powered cybersecurity allows you to:



detect abnormal  
behavior before  
it causes  
damage



faster and  
accurate make  
decisions  
regarding  
threats



prevent wasting  
time researching  
false alerts



improve  
company  
credentials



# AI and Business



**300%**

increase  
investment in AI  
methodology this  
year across all  
businesses



**57%**

of businesses  
expect it to help  
improve customer  
experience and  
support



**20%**

of major retailers  
will use AI to  
personalize the  
brand experience  
from awareness  
through purchase



**20%**

of all workers will  
use automated  
assistance  
technologies to  
make decisions  
and get work  
done



**80%**

of executives  
say AI boosts  
productivity  
and creates new  
positions

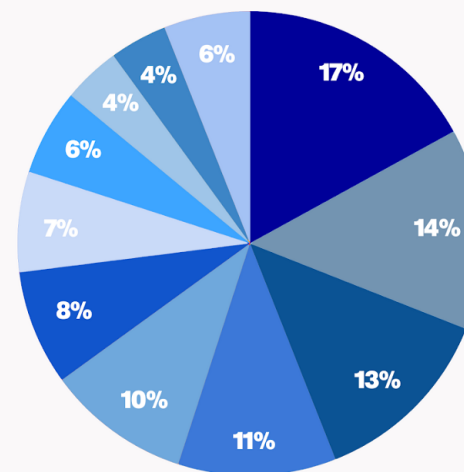
Source: Forrester/IDC/Narrative Science

## Global Artificial Intelligence Market

2021-2028



## Industry of Largest Applied AI Companies.

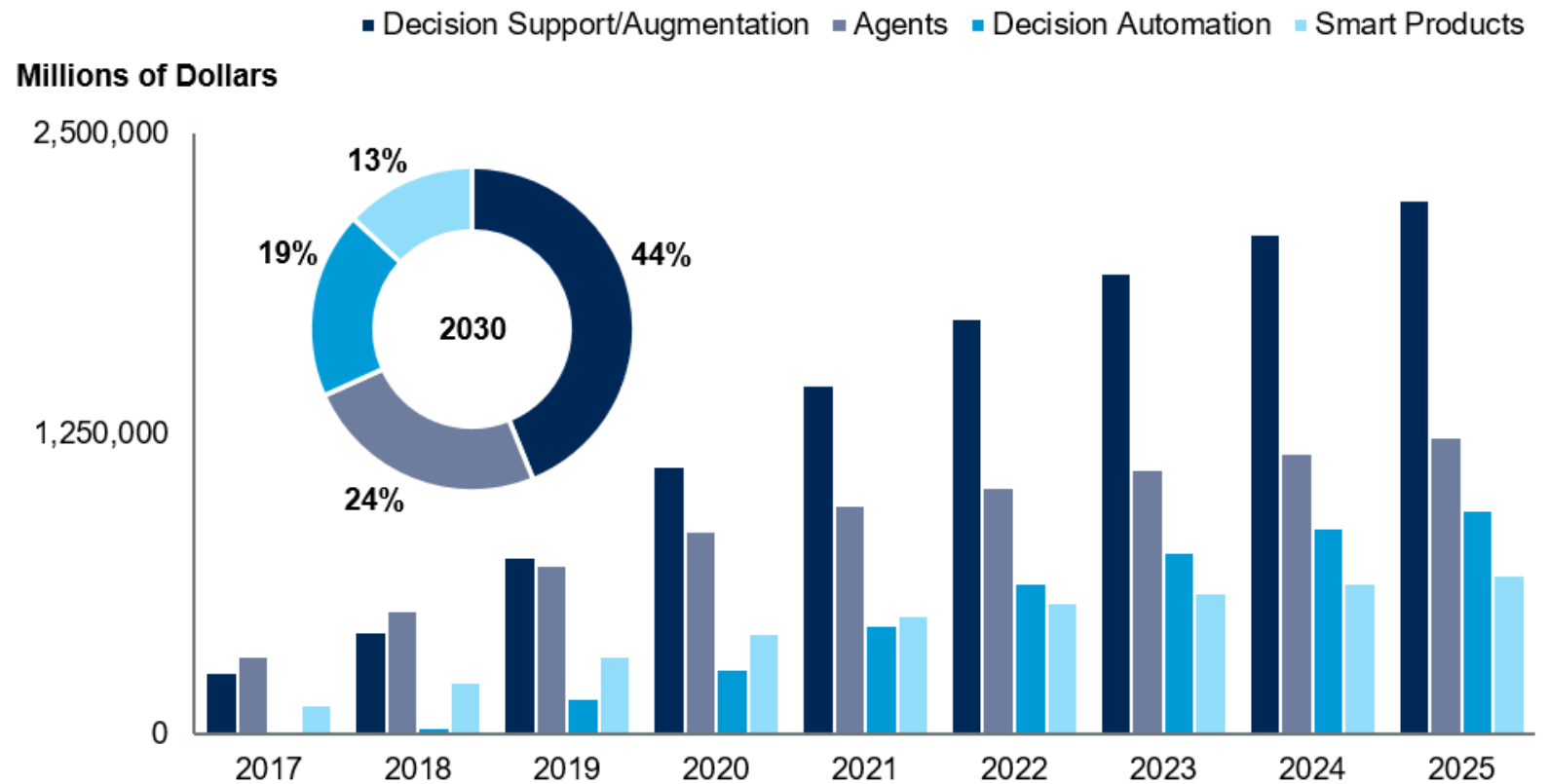


- ▲ Finance
- ▲ Sales & Marketing
- ▲ Healthcare
- ▲ Transportation
- ▲ Cybersecurity
- ▲ Administration
- ▲ Insurance
- ▲ Creative & Entertainment
- ▲ Adtech
- ▲ Manufacturing
- ▲ Other



AI  
Augmentation  
Created \$2.9  
Trillion of  
Business Value  
in 2021

## Business Value Forecast by AI Type

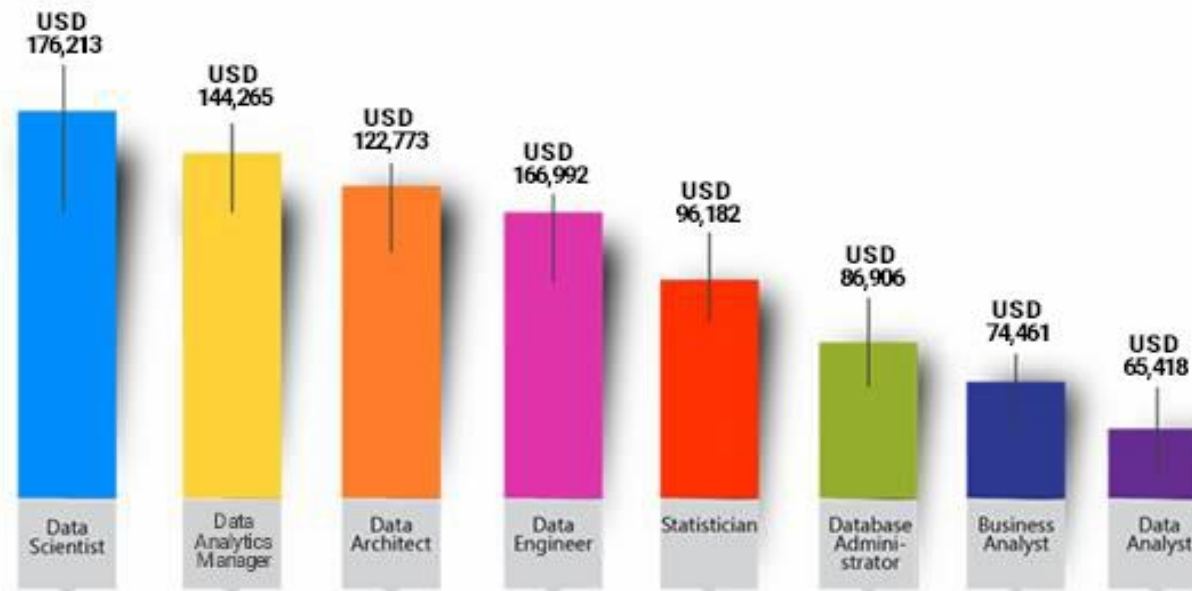


Source: Gartner  
ID: 386366

The number of jobs requiring Data Science skills is expected to grow by 27.9 percent by 2026.

A 2021 report by McKinsey stated that the U.S. alone has got a shortage of more than 190,000 data science professionals will grow up 2m in 2030 globally

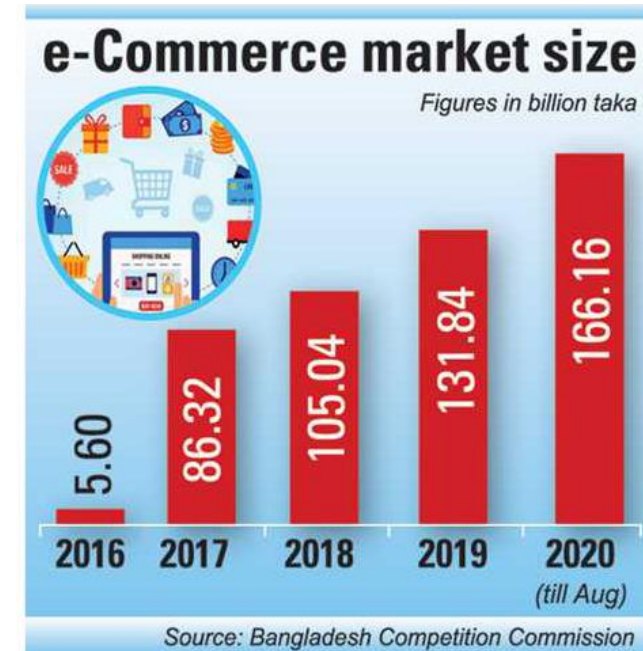
The average salaries in data science and machine learning jobs are surging sky-high with a data scientist getting USD 176,213, and a data engineer taking home USD 166,992.



Source - [www.glassdoor.com](https://www.glassdoor.com)

# Huge Opportunity to Implement AI in Bangladesh

According to the IMF, Bangladesh economy is the 2nd fastest growing economy with rate of 7.1%, and expected impact of AI economy of Bangladesh could boost 45% of gain.



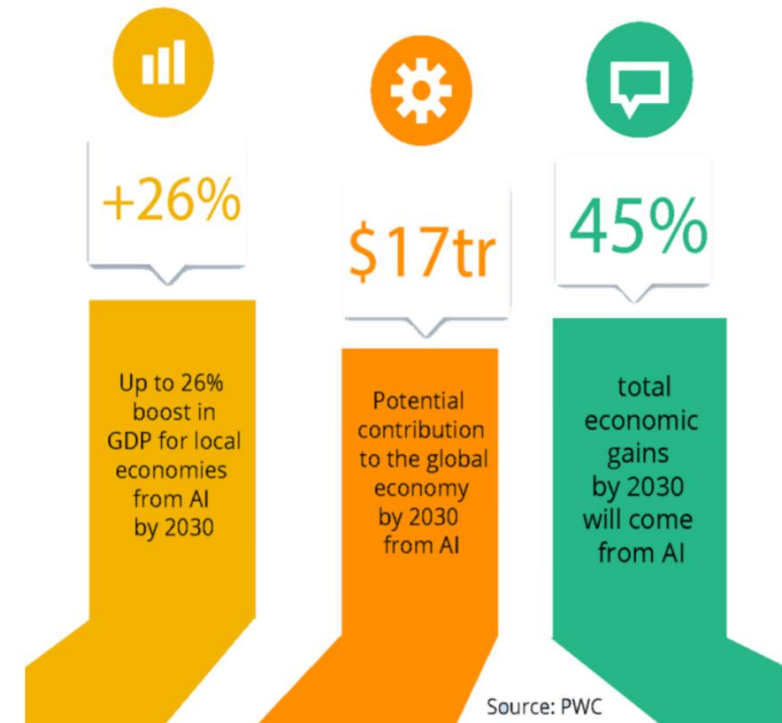


# AI Demand Overview: Bangladesh Business

## Bangladesh Information and Communication Technology (ICT) Division Targeting for AI Implementation in Following Sectors,

- ❑ AI for public service delivery,
- ❑ AI for manufacturing,
- ❑ AI for agriculture,
- ❑ AI for smart mobility and transportation,
- ❑ AI for skill & education,
- ❑ AI for finance & trade, and
- ❑ AI for health

## Bangladesh Gov. ICT Targeting



# Public Service

## ICT Focus

### SCOPE OF AI FOR PUBLIC SERVICE DELIVERY

- Intelligent National Digital Information & Service Assistant
- AI-Based Recruitment & Evaluation System
- Paperless Office
- Virtual Service Location Assistant
- AI-Based Integrated Service Delivery Platform
- AI-Based Predictive Monitoring System
- AI-Based Training
- Life Event Service Delivery Platform

### RECOMMENDATIONS

- Engage Citizens and Civil Society for Selecting an AI-Based Priority Service, Defining the Problem, Reforming or Taking Initiative
- Scope Out and Understand the Context and System in Which AI-Based Reform or Initiative Will be Applied
- Engage Media, Civil Society Organizations, Social Movements and Other Groups to Raise Awareness of the Reform or Initiative, and Mobilize Citizens to Participate.
- Work With Academics and Multilateral Partners to Evaluate the Impact of the AI in Citizen Service Delivery

Your Focus  
Could be



# Manufacturing

## ICT Focus

Your Focus  
Could be



### SCOPE OF AI FOR MANUFACTURING

- Predictive Maintenance
- Smart Quality Control
- Human-Robot Collaboration
- Generative Product Design
- Optimized Supply Chain
- Improved Customer Service

### RECOMMENDATIONS

- Identify Scopes for AI-Based Manufacturing
- Introduce AI in Business Process Optimization
- Introduce Predictive Demands and Supply System
- Adopt Reskilling /Up-Skilling/Brain Gain
- Need Production Analytics for Decision-Making Process
- Need Policy Reform to Inspire Local Innovation in Capital Manufacturing
- Need to Establish I2I(Innovation to Industry) in Manufacturing
- Need Strong Local Collaboration such as Govt. to Industry (G2I), Govt. to Academia (G2A), Industry to Academia (I2A) & Industry to Industry (I2I)

According to the Bangladesh Economic Profile 2018, the Manufacturing industry contributes 29.2% (~\$110B) of the total GDP in our economy.



# Agriculture

## ICT Focus

According to Bangladesh Economic Profile 2018, the agriculture industry contributes 14.2% (~\$50B) of the total GDP in our economy

Your Focus Could be

### SCOPE OF AI FOR AGRICULTURE

### RECOMMENDATIONS

- Crops, Soil and Livestock Monitoring
- Sowing Advisories
- Diseases Forecasting System for Crops
- Dynamic Soil Topology Map
- Picture Based Diseases Prediction & Medication
- Agricultural Robots
- Herbicide Optimization
- Reducing Farm Workload
- Precision Farming
- AI Sensors to Detect and Target Weeds While Deciding Which Herbicides to Apply Within the Right Buffer
- AI Solutions to Monitor and Suggest for Measurements for Crops, Soil, and Livestock
- Predictive Analysis Using AI for Real-Time Advisories to Farmers

- Identify AI Scopes in Agriculture Engaging Agriculture Experts and Farmers and Develop Plan Initiatives.
- Adopt Precision Agriculture and Automation Solutions to Close Yield Gaps and Prevent Environmental Damages
- Apply Data Intelligence for Better Food Inspection to Address Food Waste Challenges and Improve Early Warning Systems for Post-Harvest Plant Diseases and Pest Outbreaks
- Develop Solutions Reducing Trade Intermediating Between Small Farmers and Buyers to Reduce Inefficiencies and Increase the Profit of Farmers

# Transportation

## SCOPE OF AI FOR SMART MOBILITY & TRANSPORTATION

- Data Analysis, Data Readiness and Development of Advanced Traffic Management Solutions
- Traffic Congestion Reduction Analyzing Streamlined Traffic Patterns.
- Transport Record System to Avoid Harassment, Robbery
- AI-Based Speed Management System
- Public Safety Improvement by Tracking Real-Time Crime Data
- Driver's Behavior Analysis Tool in License Issuance Process

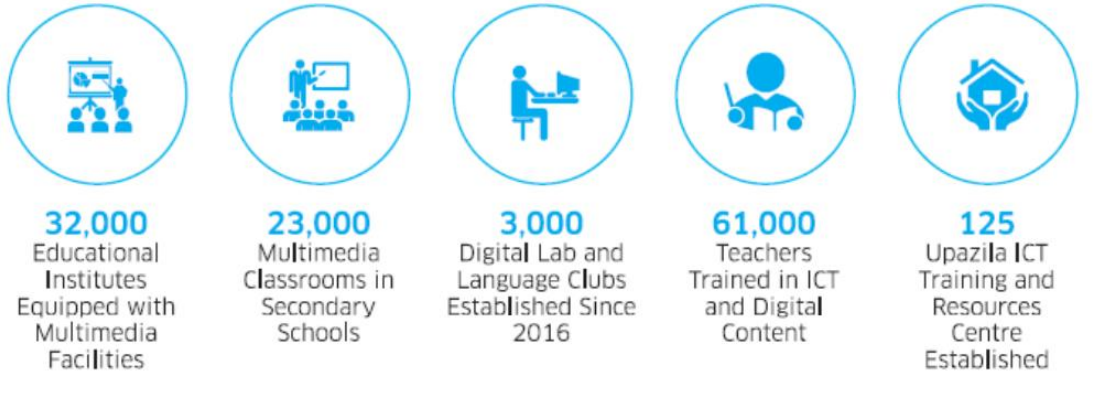
## RECOMMENDATIONS

- Sensitize Policy Makers Regarding AI Opportunities in Smart Mobility and Transportation
- Engage Media and Civil Society in Creating Awareness of AI Intervention
- Ensure Data Readiness, Sensing System & Fast Computing Devices
- Establish Policy
- Establish Infrastructure to Implement Smart Analyzing and Automatic Vehicles
- Conduct Research in Transportation to Identify Scopes Where AI Interventions

Your Focus  
Could be

# Education Sector

| SCOPE OF AI FOR SKILL & EDUCATION  | RECOMMENDATIONS  |
|--|--|
| <ul style="list-style-type: none"><li>Personalized Learning Using Adaptive Learning Tools</li><li>Interactive Tutoring Systems</li><li>Predictive Tools Using AI to Inform Pre-Emptive Action for Students and Learners</li><li>Adaptive Learning Tools for Customized &amp; Personalized Learning</li></ul> | <ul style="list-style-type: none"><li>➤ Need Initiatives for AI-Driven Future Skill Development</li><li>➤ Include AI in Secondary and Higher Secondary Education Curriculums</li><li>➤ Establish AI Research Lab in Academia</li><li>➤ Enhancing the Capacity Building of Teachers</li><li>➤ Formation of AI Supported Legal Framework</li></ul> |




The Bangladesh Govt. has the plan to train initially 50 thousand workforces based on emerging technology skills within the next five years. There are no ways to tackle the 4th industrial revolution specially job-loss issues other than skilling and re-skilling the AI workforce.



## SCOPE OF AI FOR FINANCE & TRADE

## RECOMMENDATIONS

- 
- AI-Based Credit Management System for Fraud Detection & Prevention
  - Credit Decision to Reduce Risk in Loan Sanction Process.
  - AI-Based Risk Management Solutions
  - Personalized Banking Solutions
  - Financial Process Automation
  - Virtual Customer Support Assistance

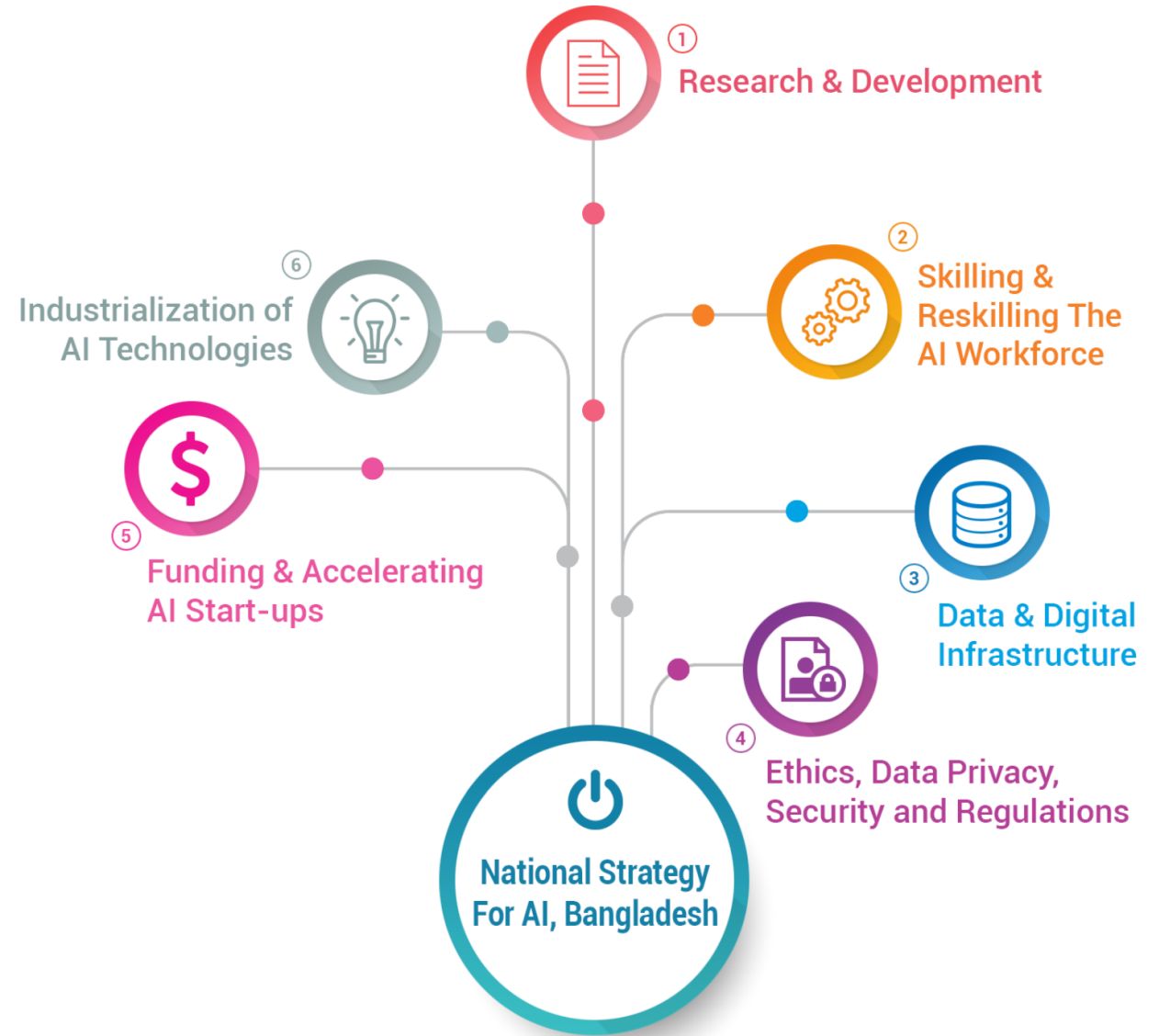
- Engage Financial Experts to Identify Scopes Where AI Can Intervene to Better Financial Service Delivery
- Ensure Centralized KYC Automation to Improve Service Dealing
- Engage Financial Experts and Policy Makers to Take Step for Democratization of Financial Opportunities for All
- Develop AI Supported One-Stop Access Point for All Financial Services
- Develop AI-Driven G2B Single Point Service Delivery

# Finance and Trade

| SCOPE OF AI FOR HEALTH   | RECOMMENDATIONS   |
|--|---|
| <ul style="list-style-type: none"> <li>• Doctor Appointment and Smart Queue Management</li> <li>• Right Doctor Selection Based on Trained System</li> <li>• Future Disease Prediction Based on Health Record</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Establish a Central Connected Health Registry</li> <li>➤ Ensure Arrangement Structures Support and Encourage Innovative Work of AI in Healthcare</li> <li>➤ Use Risk-Based Ways to Deal With</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Virtual Health Assistant for Doctors for Primary Projection and Medication for Diseases</li> <li>• Personal Health Virtual Assistant</li> <li>• Aid Clinical Judgment or Diagnosis</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Guarantee The Utilization Of AI In Medical Services has Perceived Norms of Security, Adequacy and Equity</li> <li>➤ Require the Plan of AI Frameworks in Medical Services to be Educated by Real-World Work Process, End-User Needs, Human-Focused Structure and Use Cases</li> <li>➤ Ensure AI Frameworks are Available and Reasonable</li> </ul> |
| <ul style="list-style-type: none"> <li>• Wearable IoT Devices and Advance Technologies in Early Disease Detection and Prevention</li> <li>• Health Decision Support System</li> <li>• Portable &amp; Virtual Health Care to Ensure Last Mile Health Care</li> <li>• AI Health Network for Doctor Referral</li> </ul> | <ul style="list-style-type: none"> <li>➤ Create a Suitable Harmony Between Human Care, Leadership and Enlarged Capacities from AI-Empowered Advancements and Devices</li> <li>➤ Support Training for the Progression of AI in Healthcare</li> </ul>   |

# Healthcare

# Bangladesh Government AI STRATEGY & DEVELOPMENT ROADMAP





# Bangladesh Current AI Scenario (Speculation)

Unilever achieved 260% of its stretch target for consumer conversion in countrywide brand promotion campaigns in 2021 by using Fordo, a precision marketing AI product.

British American Tobacco gained 253% improvements in brand campaign execution accuracy in 2021 by using Shobdo, a speech recognition AI product.

bKash gained 76% productivity in serving 525,000 active outlets using Biponon, a retail AI product. bKash has also gained 15% monthly onboarding growth rate while serving 74,000 active merchants

Source: <https://Bangladesh.ai>

## 4500 Software and IT organizations and 300,000 IT experts in Bangladesh--BASIS

How many pure AI companies exists out of 4500 companies? 10? 25? 50?

How many of IT company can utilize AI for production level decision making?

How many professionals now can create AI based solution?

What is the status of ICT capacity development for 50000 professionals? Status unknown.

How many of them are real AI expert or know how to use AI at a production level that requires 4 years BS degree with 2 -3 years software coding experience with 2-3 years of industry experiences and has industry level problem solving skills?

**The odds are really low, so chances for you are big if you can be the one.**

# Your Opportunity of AI In Business



## LOW HANGING FRUIT ORGANIZATIONS

(20%-40% SAVE OR INCREASE INCOME)

- Increase Production
- Reduce waste
- Maximize customers
- Improve Business Process
- Generate Business Intelligence

## Mid-Scale A Big Competition less Market to Catch in Bangladesh

- AI Skill Development
- Private Sector
- Government Ministries

## LONG TERM LARGE SCALE GLOBAL

- Consulting Opportunity with IDARE
- Technology supports
- Large Consulting Opportunity
- AI Application Product

