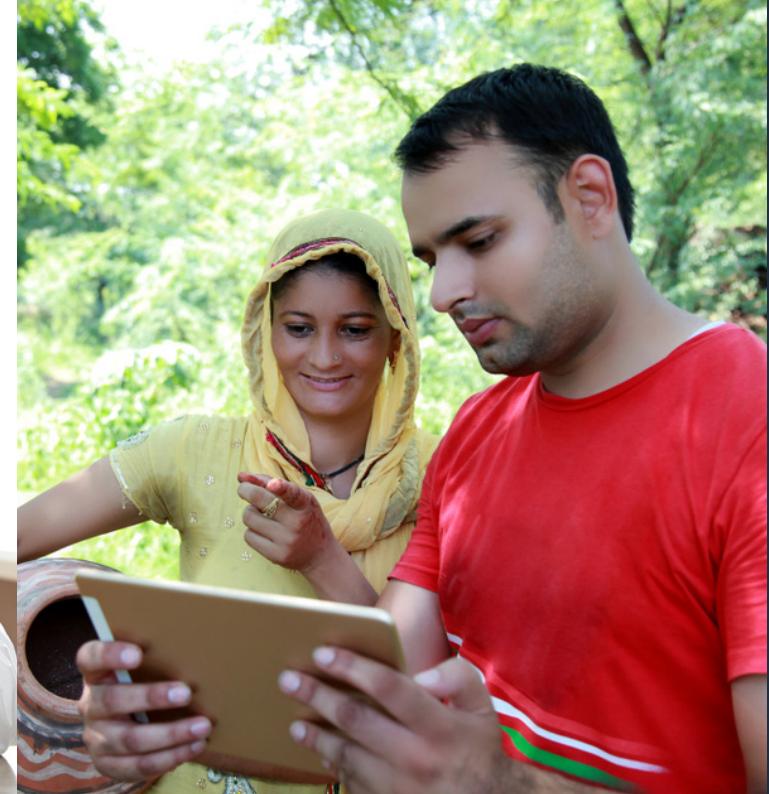
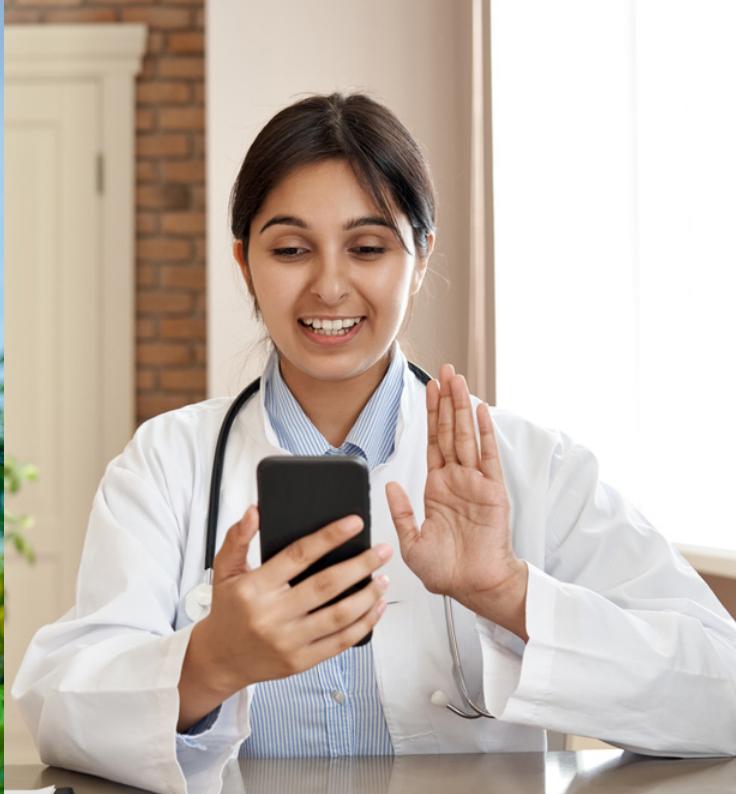


Serving a Digital-first India



Technology for
progress and inclusion





CONTENTS



PREFACE

In 2015, the government of India launched the Digital India programme with a vision to digitally empower the country and transform it into a knowledge economy. The prime minister said the government was "strongly committed" to empowering the people by building digital access, thereby paving the way for efficient delivery and governance, and serving the citizens better.

Over the past few years, the programme grew significantly, and it is estimated that India's digital economy is set to become a \$1 trillion ecosystem by 2025¹. The government's mission is further powered by several stakeholders including industry.

Amazon Web Services (AWS) and Intel share a passion for innovation. Together, they have developed a variety of resources and technologies for high-performance computing, big data, artificial intelligence (AI), machine learning (ML), and the Internet of Things (IoT) to empower this growth. This includes collaborations in multiple initiatives such as the Common Service Centers (CSCs) and Skill India.

In this compilation, we look at four key areas—financial and social inclusion, digital agriculture, education and skill development, and healthcare—where digital empowerment is helping citizens, the majority of whom live in India's Tier-2 and Tier-3 cities and rural areas, aspire for a better quality of life and livelihood.

You will read about how AWS's customers and partners are helping farmers increase crop yield across several states in India, providing essential remote neonatal care and COVID-19 monitoring, verifying the legitimacy of financial schemes aimed at lower-income groups, and providing last-mile educational impact in the remotest corners of the country.

As India makes further strides as a powerful global economy, it is essential that every citizen benefits from this growth as technology continues to play a key role in that journey.

Rahul Sharma, President, India and South Asia, Amazon Internet Services Private Limited (AISPL), shares more about AWS in India Public Sector.

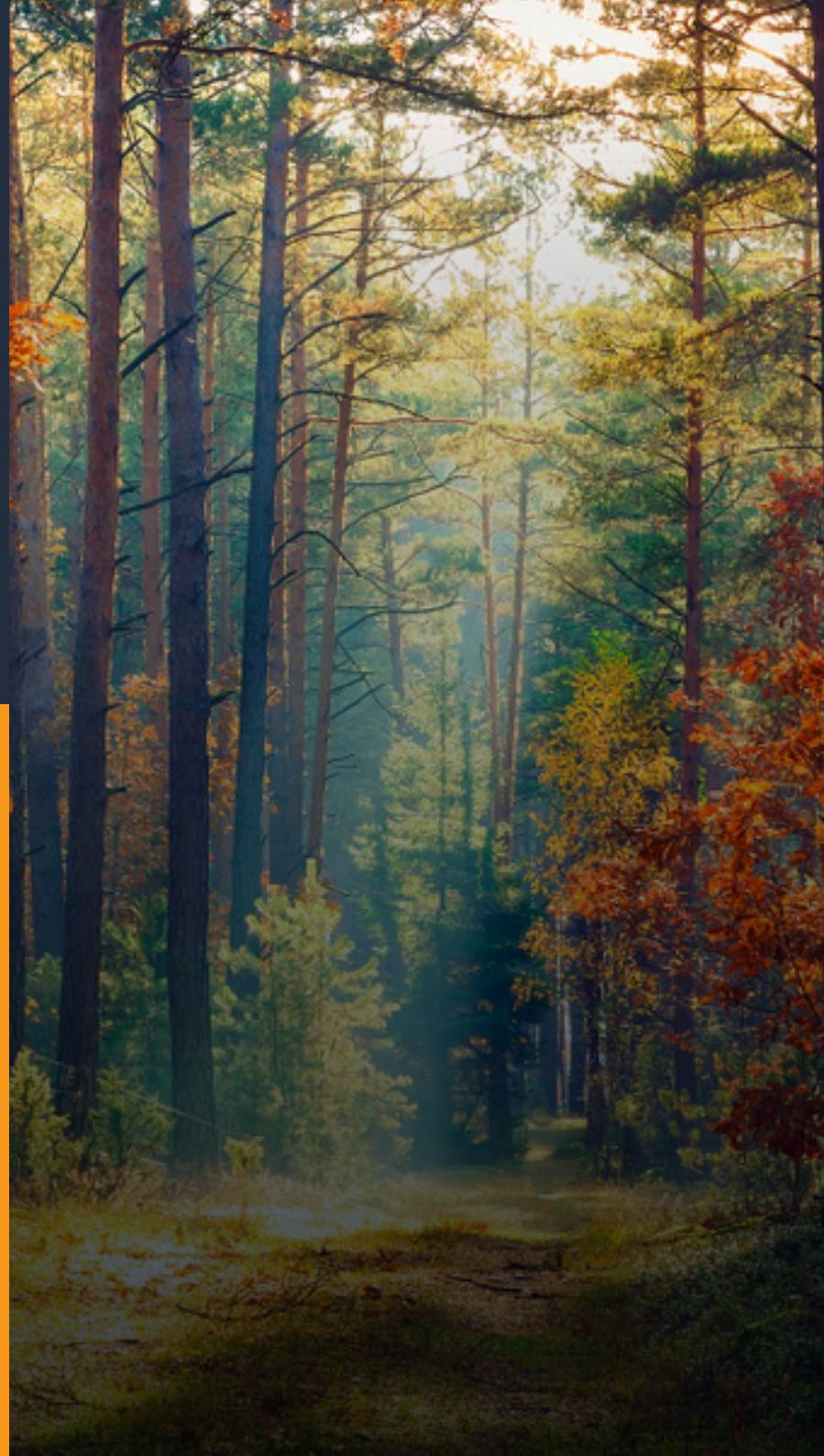
¹. India's trillion dollar opportunity - MEITY, government of India

Financial and Social Inclusion: a brief overview

According to a global survey,¹ only a quarter of Indians are financially literate. Financial inclusion is critical to India's growth, which is only possible once the country achieves last-mile inclusion (includes people living in the remotest areas of the country). With the Digital India programme and the rapid adoption of smartphones, banking and economic reforms have improved significantly.

Various initiatives by the government and innovations in the private sector are opening up universal access for all Indians to the financial sector. Read how ChitMonks, Punjab Municipal Infrastructure Development Company (PMIDC), Unmiti, and Whrrl are building financial self-reliance at the grassroots in India through AWS technology and helping people plan for a more stable future.

1. YourStory





Name: ChitMonks
Founded: 2016
Location: Hyderabad, Telangana
Sector: FinTech

“

“Using AWS Cloud infrastructure, we are able to deploy, scale, manage, and monitor our applications with minimal resources and effort. With the help of the AWS Partner programme, it was super easy to set up and operate our blockchain network onto AWS infrastructure. Otherwise, it would have been a daunting task given our deadlines. We are now 100 percent operational on AWS and working closely with the team to optimise it further.”

- Pavan Adipuram, Founder and Chief Executive Officer, ChitMonks

ChitMonks is using its T-Chits platform to manage transactions worth Rs 19,000 crore for the Telangana government



Chit funds, also known as kitty or chitty, where a group of people come together for a specified duration and pool in an amount in a pot or a chit, occupy a unique position in India's financial system. These cater to the needs of the country's lower-income segments but are often plagued by issues such as cheating by operators and other stakeholders.

To bring transparency to chit funds in Telangana, FinTech startup ChitMonks moved the chit fund documentation and transactions of around 1.2 million people to its online platform T-Chits. ***Today, it has more than 1,585+ chit fund companies, 14 regulator offices, and four nodes that facilitate more than***

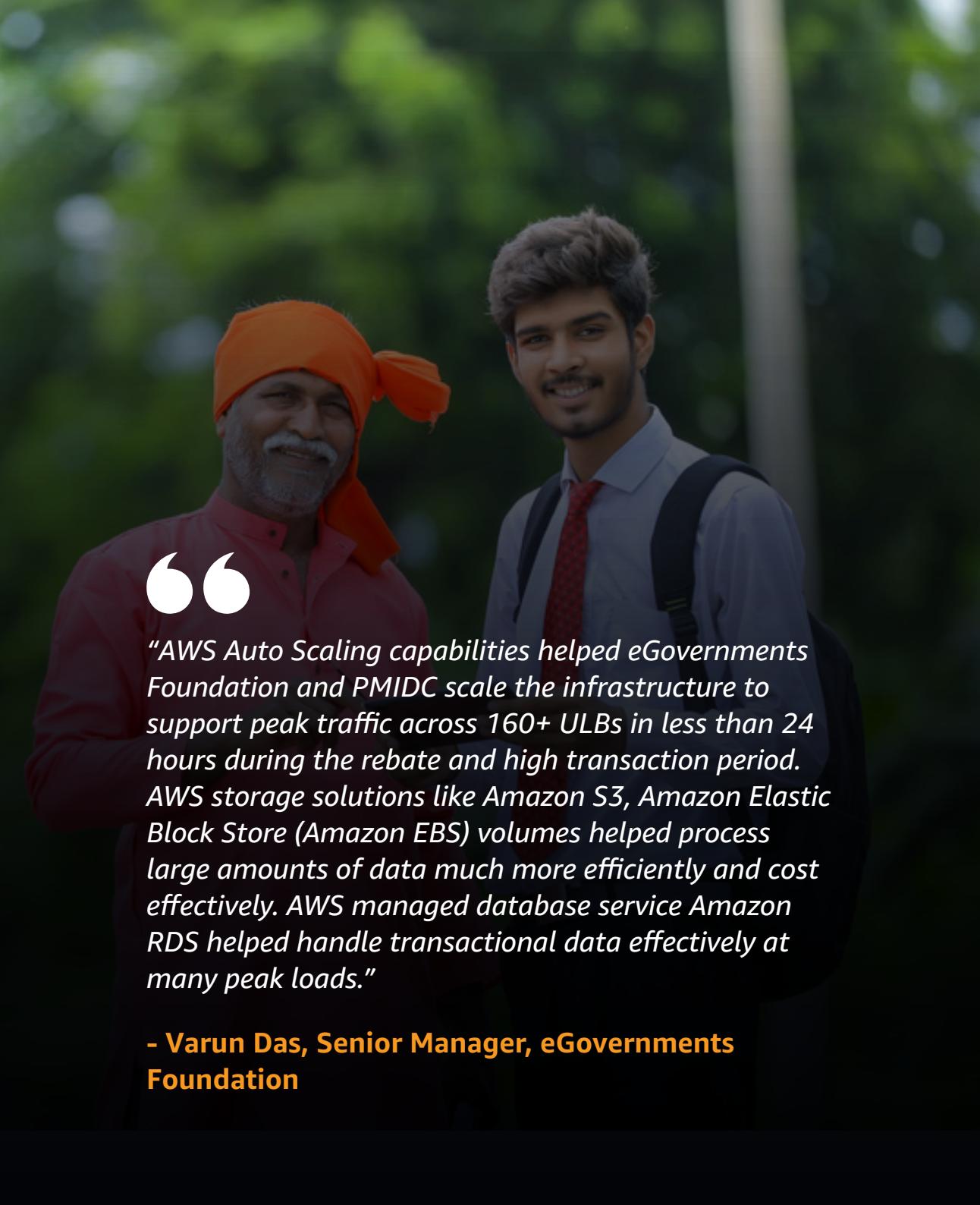
8,12,673+ transactions spread over 1.2 million subscribers with funds to the tune of Rs 18,932+ crore per annum.

For regulators too, the platform has become a medium to track registered chit groups, monitor transparency in registration and operational processes, and witness minutes filed by the company that can be tracked throughout the chit's lifecycle.

The solution uses services like Amazon Simple Storage Service (Amazon S3) for multiple document management activities.



Name: eGovernments Foundation/PMIDC
Founded: 2003
Location: Bengaluru, Karnataka **Sector:**
e-Governance



“

“AWS Auto Scaling capabilities helped eGovernments Foundation and PMIDC scale the infrastructure to support peak traffic across 160+ ULBs in less than 24 hours during the rebate and high transaction period. AWS storage solutions like Amazon S3, Amazon Elastic Block Store (Amazon EBS) volumes helped process large amounts of data much more efficiently and cost effectively. AWS managed database service Amazon RDS helped handle transactional data effectively at many peak loads.”

- Varun Das, Senior Manager, eGovernments Foundation

PMIDC and DIGIT are digitising municipal services for over 10 million citizens in Punjab



The Punjab Municipal Infrastructure Development Company (PMIDC) wanted to help citizens avail digitised municipal services, enable ease of doing business, and make services available 24/7 for urban local bodies (ULBs) in Punjab. PMIDC collaborated with the eGovernments Foundation, established in 2003 by Nandan Nilekani and Srikanth Nadhamuni, to implement the open source governance platform DIGIT on AWS.

Today, citizens under 168 ULBs are able to apply for 60+ municipal services such as water and sewerage connection, pay water charges, file grievances and track their status, apply for trade licenses, and more, digitally. ***So far, the ULBs have cumulatively crossed revenue collections of over Rs 5,00 crore via taxes***

and have issued over 18,000 trade licenses, positively impacting over 10 million citizens in Punjab. Over 75,000 grievances have also been filed through various channels on the platform. "Hosting DIGIT on the AWS Cloud has enabled the faster rollout of 12 identified applications in less than six months," said Ajoy Sharma, secretary, LG, and chief executive officer, PMIDC.

The eGovernments Foundation, which has empowered over 100 million citizens across 1,500 municipalities in fifteen states by giving them access to digitised government services, processes, and improved service delivery, worked with AWS for faster deployment of its platform.

[READ MORE](#)



Name: Unmiti
Founded: 2006
Location: Odisha
Sector: Social Inclusion



Government of Odisha's livelihood project affects the lives of 25,000 farmers with a platform to register, test soil quality, and more



The state of Odisha implemented the project with the support of the department of Panchayati Raj to reduce rural poverty by promoting diversified and gainful self-employment. The application generates a QR-code-based sample ID with coordinates by capturing details of the farmer and the farm, including cropping patterns and source of irrigation. Users have created 15,000 sample codes to date. The purpose of the project is to give the right farm inputs to increase the productivity of the farmers after soil sample lab analysis. So far, the state uploaded 3,500 activities for input distribution, coconut plantation, demonstration

plots, and other field visits, and 12,000 farmers have benefited from the project.

Unmiti developed the integrated and holistic platform that enables organisations to launch, coordinate, and track the impact of projects. It provides farmer registration numbers and activity tracking dashboards to effectively support the rural poor. The project performs extensive soil test-based nutrient application for enhancing agricultural productivity across the state's four districts: Raygarh, Gajapati, Koraput, and Nabarangpur.





Name: Whrrl

Founded: 2019

Location: Mumbai, Maharashtra

Sector: Financial Inclusion



“

We create instant secured electronic WHRs that get shared with banks and farmers on their mobile app. And when a loan is disbursed, the app creates smart contracts so that no additional loans are given against that receipt.”

- Ashish Anand, Chief Executive Officer, Whrrl

Whrrl boosts the incomes of farmers, and reduces fraud risks for banks



Agri-fintech startup Whrrl addresses multifaceted issues around fraud in the warehouse management and financing space with its blockchain and QR solutions. ***It has enabled more than 3,000 farmers, directly or through Farmer Producer Organisations (FPO), to get easy access to loans and increase their income. They also helped banks further secure their lending mechanism.*** Warehouses, too, can monitor capacity effectively, boost revenues, and avoid frauds and issues of duplicate receipts.

Whrrl works in the warehouse receipt (WHR) lending segment, one of the earliest lending mechanisms for farmers that protects them from distress selling their produce. By digitising WHRs, it creates a database of the ownership of the collateral stored in warehouses. Maharashtra Warehouse Corporation turned to Whrrl

in the previous Rabi crop season to digitise its WHR system and enable better lending with origin tracing of the loan application. So far this season, it has disbursed loans of Rs 4.63 crore through Whrrl.

Farmers can book capacity from 1,400 warehouses, largely under the Maharashtra Warehouse Corporation, along with availing credit and 70 percent asset-backed loans with Whrrl's lending app. It has facilitated competitive interest rates of around 9 percent against the market rate of around 13 percent.

Whrrl is helping farmers in Maharashtra get instant lending up to Rs 5 lakh and access to the big Rs 2,100 crore corpus allocated for warehouse receipt finance through The Maharashtra State Co-operative Bank.

Digital Agriculture: a brief overview

In India, more than 58 percent of the workforce is employed in agriculture¹. However, most farmers are smallholders with limited access to machinery, logistics, storage, and information about weather, soil health, and government schemes, resulting in billions of dollars' worth of produce going waste each year.

Technology is changing this narrative and farmers are beginning to understand how leveraging artificial intelligence (AI), machine learning (ML), the cloud, satellite imagery, and analytics offers them greater climate resilience, higher crop yield, and better price control. Read how CropIn Technology, SatSure, Kalgudi, and TraceX are working with state governments to support farmers across the country.

1. India Brand Equity Foundation



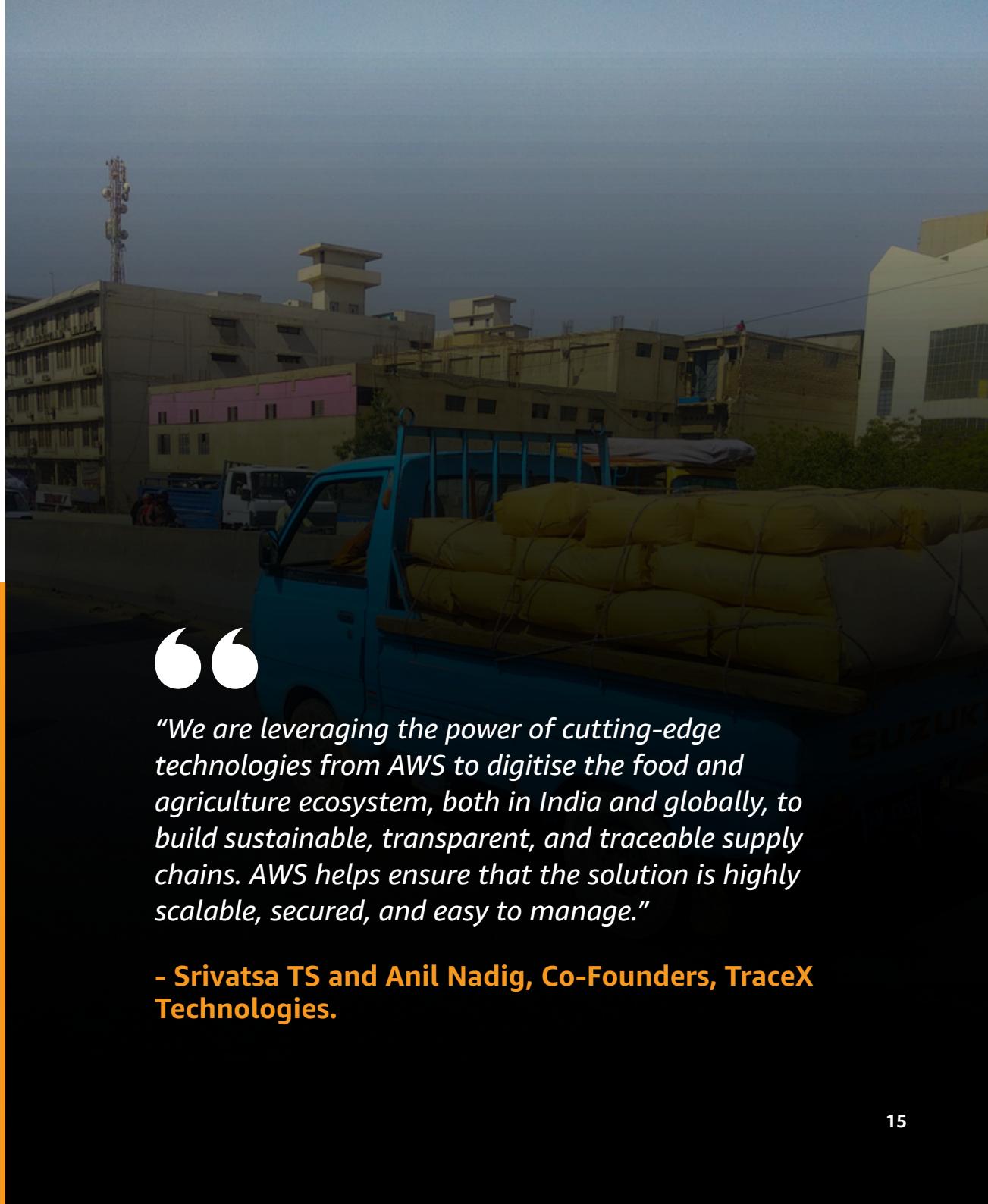


Name: TraceX Technologies

Founded: 2019

Location: Bengaluru

Sector: Agritech



“

"We are leveraging the power of cutting-edge technologies from AWS to digitise the food and agriculture ecosystem, both in India and globally, to build sustainable, transparent, and traceable supply chains. AWS helps ensure that the solution is highly scalable, secured, and easy to manage."

- Srivatsa TS and Anil Nadig, Co-Founders, TraceX Technologies.

TraceX Technologies enables a clean, credible, and traceable supply chain to reduce food waste and enhance consumer trust



The agriculture and food supply chain in India is complex and largely unorganised. A study by the Central Institute of Post-Harvest Engineering and Technology (CIPHET) says the system wastes nearly 16 percent of fruit and vegetables—and up to 10 percent of oilseeds, pulses, and cereals in India—due to gaps in the supply chain.

FOODSIGN™, the flagship solution from Bengaluru-based TraceX Technologies, is a digital agriculture platform that leverages blockchain. It connects multiple supply chain participants such as farmers,

aggregators, food processors, and others to securely exchange verifiable and auditable data leading to mutual trust, accountability, and transparency amongst the participating actors, eventually reducing food waste and increasing consumer trust. Stakeholders can trace the pre- and post-harvest journey of agriculture produce using a combination of multilingual Android app, web application, application programming interface (API), and Internet of Things (IoT) devices. ***It has helped more than 6,000 farmers adopt sustainable agricultural practices and lowered the cost of cultivation across 7,413 acres of mapped land.***



Name: CropIn

Founded: 2010

Location: Bengaluru

Sector: Agritech



“

“AWS is the centre of our architecture. This helped us build our infrastructure at scale without worrying about challenges related to set up or management in production. We were able to meet the customer growth, without much change in our system by using AWS. As we scale our platform from the existing 6.1 million acres and 2.1 million farmers across 60+ countries and 9,400+ crop varieties, AWS's solutions will play a vital role.”

- Krishna Kumar, Founder and Chief Executive Officer, CropIn

CropIn's digital platform helps farmers in Bihar and Madhya Pradesh tackle the adverse effects of climate change



Agriculture sustains 70 percent of rural households in India.¹ But climate change is posing a threat to sustainable agriculture. CropIn Technology built a digital solution for agriculture stakeholders and farmers to tackle climate change challenges and adapt faster to climate-smart agricultural practices, especially in flood and drought-prone regions.

CropIn worked in the Sustainable Livelihoods and Adaptation to Climate Change (SLACC) project in association with the government of India's National Rural Livelihood Project and supported by the World Bank. ***The programme transformed the lives of 8,209***

farmers across 244 villages in Bihar and digitised 23,000+ farm plots across 100+ crop varieties in two years. The programme has seen a 90 percent adoption rate and 80 percent implementation rate of recommended practices.

CropIn's SmartFarm monitors and captures farm-level data and delivers real-time advisories through web and mobile-based dashboards. These include season-wise crop configurations, weather-based advisories in Hindi, information about sowing, soil health, seed treatment, fertiliser application, and treatment of crop disease and livestock.

1. Economic Survey 2019-20

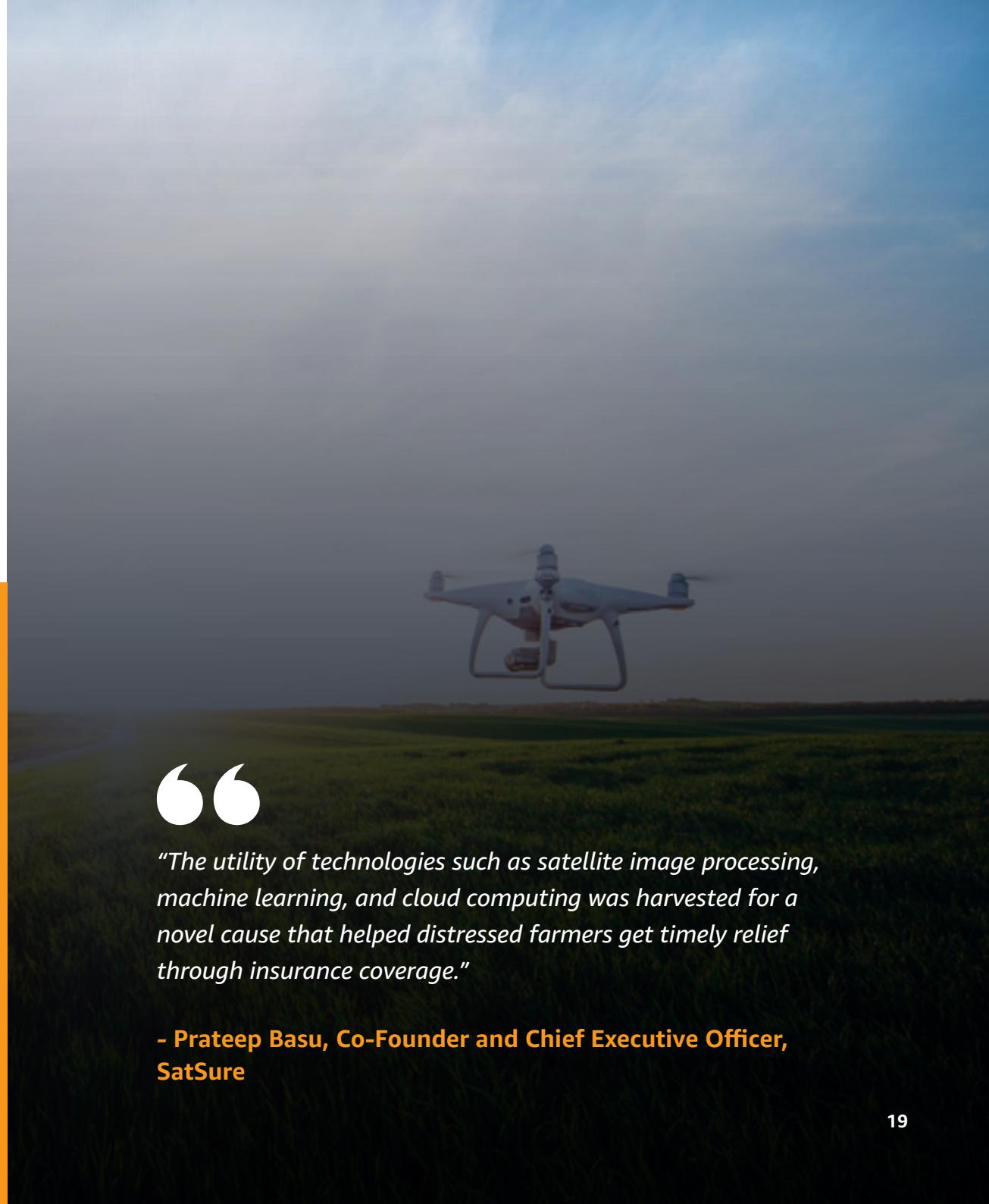


Name: SatSure

Founded: 2015

Location: London, Bengaluru, Switzerland

Sector: Agriculture



“

“The utility of technologies such as satellite image processing, machine learning, and cloud computing was harvested for a novel cause that helped distressed farmers get timely relief through insurance coverage.”

**- Prateep Basu, Co-Founder and Chief Executive Officer,
SatSure**

SatSure's analysis of satellite data helps Andhra Pradesh government assess crop damage and settle farmers' insurance claims in record time



When tropical cyclone Titli hit India's eastern coast in October 2018, farmers in Srikakulam district of Andhra Pradesh suffered extensive damage to their crops. The government of Andhra Pradesh worked with SatSure, a decision intelligence platform, to provide satellite-based crop monitoring services to enable efficient crop insurance claim settlement. ***The insurance claims were released in a record 30 days.***

As soon as the cyclone alert sounded, SatSure analysts accessed and analysed microwave satellite images of

Sentinel-1 using the Registry of Open Data on AWS. Within three days, they delivered insights about areas under cultivation and areas inundated. They used Amazon Aurora services to spin up the database, along with Amazon Elastic Computing (EC2) for rapid computing and data training for the analysis. The insights helped the state agricultural department prioritise which villages to visit to validate the extent of crop damage. SatSure also helps build accurate risk profiles of farms and farmers to give them better access to credit.



Name: Kalgudi (Vasudhaika Software Solutions Private Limited)
Founded: 2001
Location: Hyderabad
Sector: Agritech



Kalgudi's commerce portal (andhragreens.com) for agriculture helps farmers, micro-entrepreneurs from AP sell to consumers in India and abroad



Kalgudi is a free-to-use AI-based agricultural platform that connects farmers, micro-entrepreneurs, and agriculture value chain players to the right stakeholders. The platform is available in local languages with some features that are offline-enabled for remote areas where connectivity is poor. Kalgudi's core agriculture services help farmers and FPOs in farm management, information dissemination, training, and extensions. Its intelligent marketplaces aggregate demand and supply and facilitate transactions with digital assistance. As part of the output consumer marketplaces, in May this year, ***andhragreens.com*** launched on the Kalgudi platform, with the association and support of the Andhra Pradesh horticulture department. ***In just a few months, the solution reached 300 FPOs, each with 200-300 member farmers and 500 women's self-help groups from Andhra Pradesh, who sell their products directly to consumers.*** Most farmers, who are selling through andhragreens.com, reported a minimum 30 percent increase in the sale of their products compared to traditional channels.

22

The direct farmer-to-consumer e-commerce portal

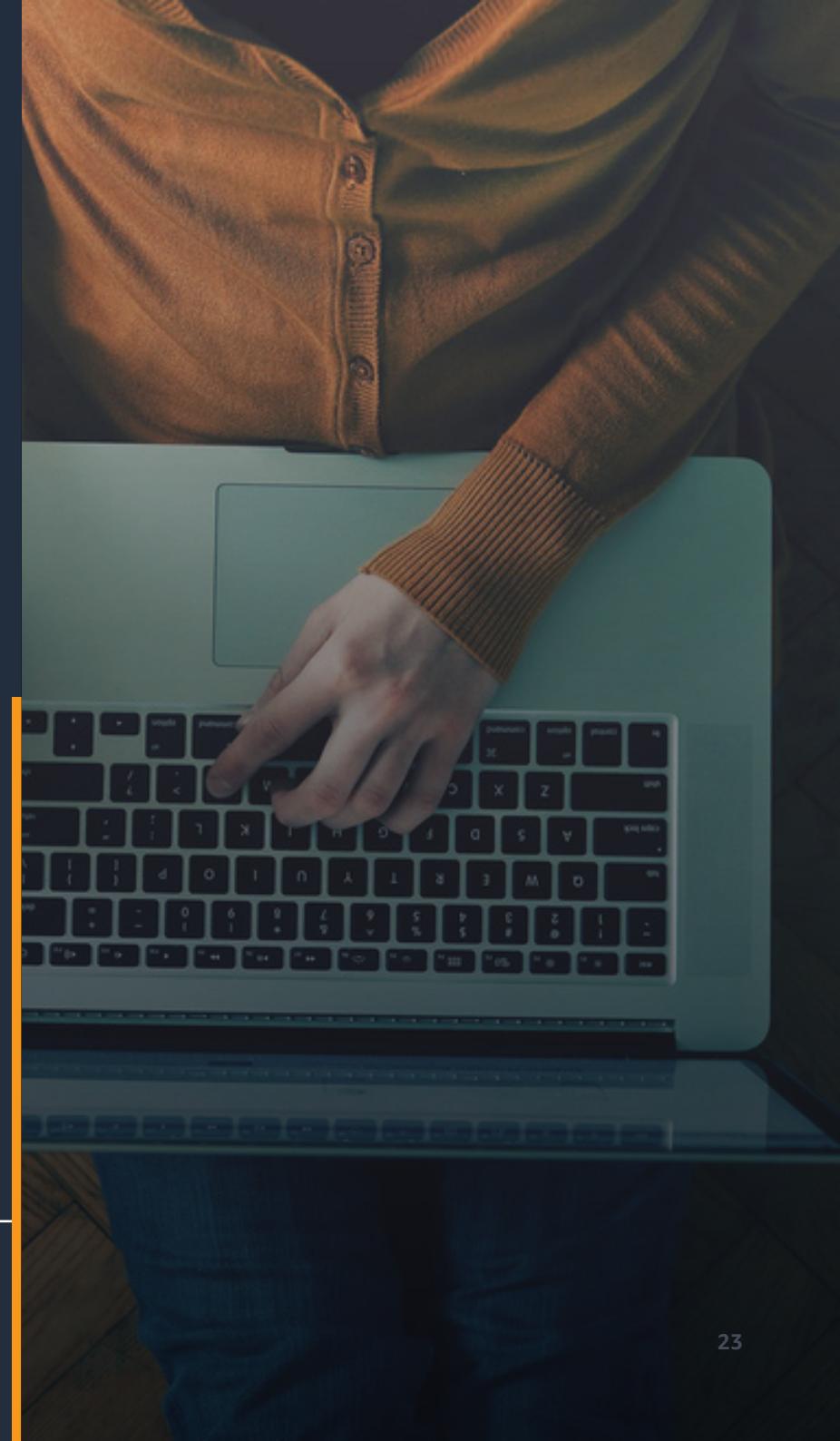
specialises in fruits, vegetables, spices, snacks, and other regional specialties. Product descriptions and category creation are handled by Kalgudi so that producers can compete with other organised players in the market. Kalgudi's intelligent value-chain integration and collaborative fulfillments not only generate rural livelihood, but enable end-to-end traceability that showcases producers, farm activities, inputs used, processing, and tracking for every order. With these, producers and micro-entrepreneurs have been able to directly sell to customers across India and even abroad in countries like Russia and the UK.

By connecting the ecosystem, removing information asymmetry, avoiding exploitation and digital value chains, andhragreens.com helped improve the livelihood and incomes of these agricultural producers. Hyderabad-based Vasudhaika Software Pvt Ltd developed Kalgudi. The platform is built on open source technologies, running on cloud. It uses AWS technologies including GraphDB and Lambda services, and other AI and ML algorithms.

Education and Skill Development: a brief overview

India has one of the world's largest youth populations with more than 50 percent under the age of 25¹. However, in addition to skill development, there is a concerted effort to integrate conventional "chalk and talk" methods with customised online learning. The country's EdTech sector is helping to narrow the divide through the use of AI and ML to deliver personalised training programmes. Read how education initiatives CL Educate, Learning Matters, Educational Initiatives, and English Helper contribute to delivering customised learning to students all over the country.

¹. Census India





Name: CL Educate
Founded: 2020
Location: New Delhi
Sector: EdTech



Project Aspiration 2020 by CL Educate makes online learning fun, engaging for 165,000 government school students in NCR



With Indian schools shutting down in response to COVID-19 in March, the government school system needed a cost-effective solution that could transform education across the country. The Delhi Government approached EdTech startup CL Educate (formerly Career Launcher), to use its unified digital learning platform, aspiration.ai, to scale up quickly to cater to a large group of concurrent users. ***Today, the programme, known as Project Aspiration 2020, serves over 165,000 students and is projected to serve one million students in the future.***

CL Educate adapted the learning platform, built on the AWS platform with Intel, and made it launch-ready in just two weeks. The platform, aspiration.ai, offers both synchronous and asynchronous content and features special interactive features that keep students engaged. In fact, 90 percent of students enrolled are active on the platform.

Project Aspiration used Amazon EC2, CloudFront, AWS Elemental MediaLive, AWS Elemental MediaPackage, Amazon S3, Lambda, and Amazon Elastic Transcoder to build their platform.

Learning is more inclusive and interactive with live streaming and access to past recordings. Students with limited access to broadband internet can view the content on demand. In addition, teachers can track a child's progress and step in if needed thanks to the advanced analytics. "It is great to collaborate with tech giants such as Intel® and AWS to help education stay uninterrupted in this period. We hope to take this partnership to a hundred such large projects globally and to be seen as practitioners of the do-good-do-well philosophy," says Satya Narayanan R, chairman, CL Educate.

[READ MORE](#)



Name: Learning Matters

Founded: 2016

Location: Bengaluru, Karnataka

Sector: EdTech



Learning Matters uses voice-assisted technology to transform education in rural India



Students at Sri Kanchi Sankara Vidyalaya in Thiruvidaimarudur, a small town near Thanjavur in Tamil Nadu, have been learning the basics of spoken English with Tara, an interactive, AI-enabled natural language voice recognition tool powered by Amazon Alexa.

With the use of text-to-speech and speech-to-text, Tara teaches communicative English and other subjects to students in the rural areas of Tamil Nadu and Karnataka. **Over 30,000 students in schools with poor teacher-student ratios or lack of qualified teachers now have a 'teacher' who can converse, repeat lessons, provide feedback, and correct mistakes repeatedly.** Tara has not replaced teachers but rather empowered them with the flexibility to conduct classes with "her" help and to improve learning outcomes.

To power learning in under-resourced communities, Learning Matters turned to AWS to quickly prototype

new solutions and go to market. For this, the team uses AWS documentation to help them understand how to develop new modules. They also use AWS Cloud's advances in AI and cloud computing to create new and more impactful AI-based solutions for virtual learning and professional development programmes.

With schools pivoting to online learning mediums, Learning Matters also launched the Proficiency in Education Practices programme for educators. As part of this, experts in education management conduct webinars to ensure smooth management of online classes for students and teachers. Moreover, even though students have not returned to school yet, teachers have effectively continued their classes with Tara using their Tara books and the Echo Dot device to limit the gap in their learning.

[READ MORE](#)



Learn, at your pace, in your context

Name: English Helper

Founded: 2009

Location: New Delhi/ Waltham,
Massachusetts

Sector: EdTech



“

“When technology is successfully integrated with curriculum, students display higher engagement in class and this enables teacher effectiveness. When the same technology is made available beyond the classroom, it adapts to each student's needs helping them learn at their own pace. Classroom learning supplemented by students' learning on their own provides a massive boost to learning outcomes.”

- Sanjay Gupta, Chief Executive Officer, Managing Director of EnglishHelper

English Helper will enable 20 million students in 100,000 schools to read and speak English



Only 16 percent of children in the first grade in rural India can read text at the prescribed level, whereas almost 40 percent cannot even recognise the alphabet¹. The RightToRead programme, an initiative by EdTech company English Helper, helps bridge this deficit by taking technology-enabled reading to millions of students in schools across the globe by deploying ReadToMe, English Helper's AI reading and comprehension product.

Currently, the programme has been implemented across 10 countries in Asia, Africa, and Latin America. In India alone, it has been implemented in 27 states and five union territories. ***From impacting 100 schools, 20,000 students, and 500 teachers in 2013-14, this programme expanded significantly. It will reach 100,000 schools, 20 million students, and 500,000 teachers in 2020-2021.***

Teachers use ReadToMe in class to read the existing textbooks. Students display much higher levels of concentration, engagement, and retention. Teachers report improved reading, comprehension, and speaking skills in students.

English Helper uses Amazon EC2, CloudFront, CloudWatch, and Amazon RDS for its ReadToMe programme.

"The introduction of tech-based learning is imperative to advance English literacy and speaking skills for the rural segments," says Sanjay Gupta, chief executive officer and managing director, EnglishHelper. He believes, in order to see improvement in literacy and English, the effort should begin at the earliest stages of the education journey of every child.

Listen to AWS Fix This Podcast on how English Helper is democratising education using AWS Cloud.

¹ Annual Status of Education Report 2019



Name: Educational Initiatives

Founded: 2001

Location: Bengaluru, India

Sector: EdTech



“

“Educational Initiatives’ collaboration with the AWS Cloud has helped in mining its data treasure trove. Analysing 20 years of data on learning and assessment, which could have taken years to slice and dice, was possible with just a few weeks of effort.”

- Umesh Joshi, Chief Product and Technology Officer, Educational Initiatives

Educational Initiatives helps students achieve better learning outcomes



Founded in 2001, in Ahmedabad, Educational Initiatives (EI) leverages research and technology-based solutions to analyse the level of conceptual understanding among students in the K12 age group and provide diagnostic assessments and remediation that can improve their learning. ***Since its inception, EI has conducted over 10 million assessments. EI's AI-enabled adaptive programme Mindspark, which has reached over 500,000 students, helps children improve their conceptual understanding in mathematics, English, and science.***

Educational Initiatives has used Amazon EC2, Amazon S3, Amazon EMR, and Amazon Redshift to build its assessment platform.

With a mission to reach a multitude of children from diverse socio-economic and educational backgrounds, EI has developed a suite of products that focus on diagnostic assessment and personalised learning. The Assessment of Scholastic Skills through Educational Testing (ASSET) test developed by EI is a scientifically designed, skill-based assessment tool that provides insights into the learning loss and provides them the information on how to start the process of teaching, remediation, and enhanced learning

The startup first implemented online analytical processing (OLAP) architecture on the AWS Cloud.

Healthcare: a brief overview

Nearly 88 percent of India's healthcare professionals have access to digital health technology¹. Today, technologies such as telemedicine, virtual reality, AI, and wearable tech have changed the way doctors and patients interact. While telemedicine reduces waiting time to consult a doctor, AI is playing a pivotal role in improving clinical outcomes. Wearable tech monitors vital signs 24/7 and alerts doctors about any variations that need immediate attention. Read how Dozee, ProjectStepOne, JioVio Healthcare, and eSanjeevani are reaching out across social and economic divides to take healthcare to where it is needed most.

¹Future Health Index 2019





Name: Turtle Shell Technologies

Founded: 2015

Location: Bengaluru, Karnataka

Sector: HealthTech



Dozee helps doctors monitor critical patients remotely



Dozee is India's first contactless remote vitals monitoring device, exclusively designed and made in India. It tracks key vitals of the human body such as heartbeat, respiration, cardiac contractions, sleep, and stress with a medical-grade 98.4 percent accuracy. The brainchild of IIT graduates Mudit Dandwate and Gaurav Parchani, over 30 healthcare institutes use the contactless sensor, including Kauvery Hospital, IGMC Nagpur, ILS Kolkata, Chengalpattu Medical College, Kingsway Hospital, and Ministry of Ayush.

Since March this year, they have deployed over 1,200 Dozees in over 20 quarantine centres across eight states saving over 6,000 nursing hours. The potential for at-home remote monitoring devices in India is huge. According to the most recent data, 500 million Indians are at risk of stroke, hypertension, age-related conditions, cardiovascular diseases and chronic obstructive pulmonary disease (COPD), which can be

managed through continuous monitoring. Dozee is being used by patients with chronic illnesses and post-surgical care patients for regular vitals monitoring at-home. There is increasing demand from elderly patients who are at risk of heart ailments but are unable to visit the hospital for daily tests.

Dozee uses Multiple managed services for data storage, computing and transfer on AWS, Amazon Simple Queue Service (SQS), Amazon EC2 Spot instances, and Amazon S3.

Dozee's proprietary Advanced Health Intelligence System extracts biomarkers and vital parameters from the noisy vibration data captured by the sensors. The sensor continuously monitors a patient's cardiac and respiratory cycles, and notifies the care team of any abnormalities that may be detected before it becomes critical.



JioVio Healthcare

Name: JioVio Healthcare

Founded: 2016

Location: Madurai, Tamil Nadu

Sector: HealthTech



JioVio Healthcare provides much-needed neonatal and antenatal care in rural India



Jio Vio Healthcare is using AI, IoT, and wearable technology to monitor high-risk patients remotely. Founded by Senthilkumar Murugesan, the Madurai-based startup is also working closely with hospitals and governments and has developed solutions to address the needs of the elderly, and pregnant women. ***It has helped over 4,000 pregnant women and completed 22,000 home-based antenatal checkups so far.*** Today, the solution has been deployed in 70+ tribal villages across three states. JioVio is working closely with developmental programme Amrita Serve in Kerala's Wayanad region, U- Respect.

Foundation in Maharashtra's Thane district, and the Digital Empowerment Foundation in Tamil Nadu's

Kanchipuram district. The wearable and mobile app gathers and transmits data about the pregnancy to the patient's digital records, which is hosted securely on the AWS Cloud. This means that the patient can be monitored and given the required medical care with minimal resources and with no unnecessary physical contact.

The startup uses Amazon Rekognition, Amazon CloudFront, Amazon Route 53, Amazon EC2, Amazon Lightsail, and Amazon Simple S3.

Senthilkumar says that working with AWS has not only brought about cost and time savings, but created an improved experience overall.

[READ MORE](#)

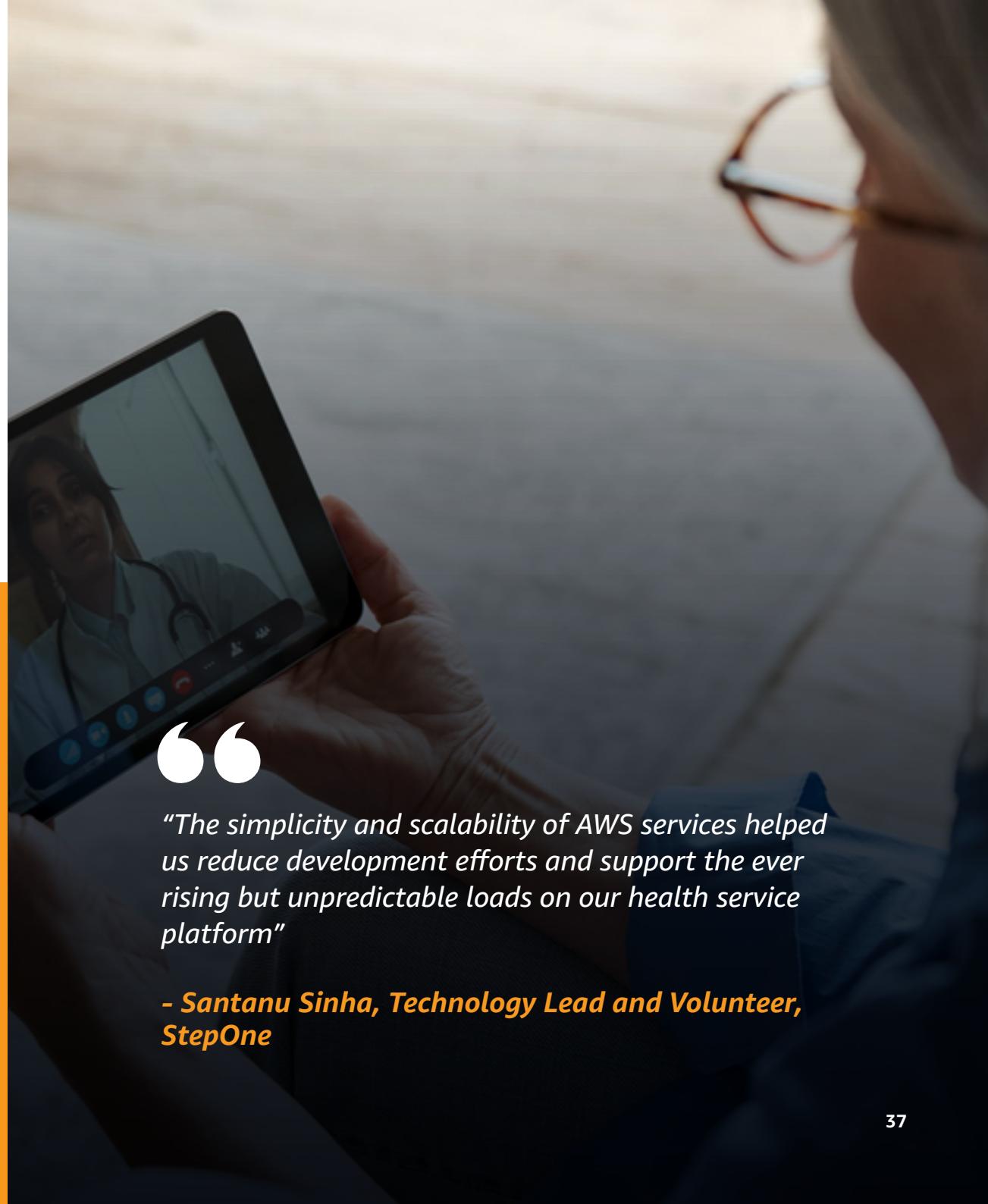


Name: Project StepOne

Founded: 2020

Location: 16 states across India

Sector: HealthTech



“

"The simplicity and scalability of AWS services helped us reduce development efforts and support the ever rising but unpredictable loads on our health service platform"

*- Santanu Sinha, Technology Lead and Volunteer,
StepOne*

Project StepOne supports the government's COVID-19 management services



Project StepOne was founded in March 2020 as a non-profit technology-led platform that offers free and universal access to quality healthcare to those who need it most. StepOne augments stressed government helplines by leveraging technology, people and processes.

Project StepOne has reached four million citizens, performed over 900,000 tele-consultations and prevented an estimated 500,000 contacts since it was founded in March 2020. StepOne's 7,000 doctors and volunteers handle 25,000 calls each day through their helplines. StepOne has deployed a managed services

and serverless approach to rapidly build and scale their platform.

Project StepOne uses Amazon ECS, Amazon RDS, Amazon Elastic MapReduce (Amazon EMR), and Amazon Elasticsearch Service.

"To manage this crisis better, we choose to deploy technologies that help volunteer doctors, paramedics and non-medical volunteers to seamlessly collaborate on a single platform to deliver free telemedicine support to Covid patients," says Raghavendra Prasad T S, founder and chief volunteer, StepOne.





Name: eSanjeevani OPD
Founded: 2020
Location: Pan-India initiative
Sector: HealthTech



eSanjeevani helpline offers critical telemedicine services



The eSanjeevani helpline is a telemedicine system that enables doctor-to-doctor teleconsultations and allows providers to seek health services from other medical specialists. ***eSanjeevani is being implemented at over 155,000 health and wellness centers in the country under Ayushman Bharat Scheme, the world's largest health insurance scheme.***

The Centre for Development of Advanced Computing or C-DAC, under the Ministry of Electronics and Information Technology (MeITY MyGov), built the eSanjeevani OPD line. Following the COVID-19 outbreak, the outpatient departments (OPD) at hospitals shut down, and there was an urgent need for access to doctors. The helpline, which crossed over

300,000 teleconsultations, has been rolled out in 23 states, and there are plans to include other states soon.

C-DAC created the eSanjeevani OPD solution in collaboration with AWS. C-DAC, in partnership with Amazon Web Services (AWS), created the eSanjeevani OPD solution. The completely free service uses Amazon RDS, Amazon Simple Queue Service (SQS), and Amazon S3

Today, the helpline handles about 4,000 consultations per day but the aim is to scale it up to handle more than 200,000 daily consultations. There are also plans to build in an automatic voice capability that assists people in their native language.

Our global infrastructure

The AWS Global Cloud Infrastructure is the most secure, extensive, and reliable Cloud Computing environment anywhere, on and off the planet. Whether you need to deploy your application workloads across the globe in a single click, or you want to build and deploy specific applications closer to your end users with single-digit millisecond latency, AWS provides you the cloud infrastructure where and when you need it.

With millions of active customers and tens of thousands of partners globally, AWS has the largest and most dynamic ecosystem. Customers across virtually every industry and of every size, including start-ups, enterprises, and public sector organizations, are running every imaginable use case on AWS.

Explore our world.

Learn more about our global infrastructure of AWS Regions and Availability Zones in more detail, and find out what offerings are available at all AWS locations.

See our global infrastructure.



Start your journey

Explore: Want to read more stories like these and find resources to support your journey to the cloud?
[Explore our City Transformation hub](#)



[Visit AWS India's Public Sector](#)

Get ready: Are you considering a cloud migration? The online [Cloud Adoption Readiness Tool](#) is a self-guided checklist to gauge your level of preparedness for a smooth transition to the cloud.



[Read our AWS Public Sector Blog](#)



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Speak with our team

Governments worldwide are transforming their missions every day using AWS.
Contact our experts and start your own AWS Cloud journey today.

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