CII-ITC Centre of Excellence
for Sustainable Development

Confederation of Indian Industry

# Leveraging Technology to Maximise CSR Impact

**Project Team – Anoushka Jha, Jayashree Singha, Kavita Kathait, Lakshmi Iyengar, Naresh Saini, Zaheena Naqvi**



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# Foreword

**Chandrajit Banerjee**

Director General,
Confederation of Indian Industry

In today's world, technology is integral to every aspect of life. Recognising its significance, CII has undertaken several efforts through initiatives such as Digital Saksham and upskilling, to empower and foster an ecosystem that supports technology adoption and drives industrial innovation.

This year's compendium '**Leveraging Technology to Maximise CSR Impact'** highlights how companies have utilised technology to enhance the impact of their CSR projects. 25 of the most unique and innovative projects in Education, Healthcare, Environment, Skills, Livelihood, Rural Development, and Women Empowerment have been captured in this publication. The compendium showcases best practices, challenges, and opportunities in leveraging technology to create a greater impact for CSR projects.

As we navigate the evolving landscape of Corporate Social Responsibility (CSR) in India, the role of technology has emerged as a game-changer. It is no longer sufficient for businesses to engage in CSR merely as a compliance requirement. Today, CSR must be strategic, measurable, and sustainable. The integration of technology into CSR initiatives is crucial to achieving these goals, as it enhances companies' abilities to reach broader audiences, measure impact more effectively, and create sustainable value for communities.

In the past, CSR initiatives were often hampered by limited resources (both manpower and financial), geographical constraints, and difficulties in monitoring and evaluating projects. However, with the advent of digital tools and technologies, these challenges have been significantly reduced.

Technology enables companies to design more effective and targeted CSR interventions. By leveraging data analytics, companies can better understand the needs of communities, identify gaps in service delivery, and tailor their CSR initiatives to address these needs with precision. Additionally, technology facilitates real-time monitoring and evaluation, allowing companies to track the progress of their CSR projects and make data-driven decisions to optimise impact.

A survey was also conducted with member companies to gauge the effectiveness, sustainability, and implementation challenges of the projects. The survey aims to help map trends regarding the use of technology in CSR projects, functions, and key insights derived from such projects.

As we move forward, it is essential that companies continue to innovate and explore new ways to leverage technology in their CSR efforts. In this way, they not only uphold their social responsibility but also contribute to the broader goal of sustainable development in India.

We extend our sincere appreciation to all the participating companies for sharing valuable insights on incorporating technology into CSR. We hope that the compendium will inspire and guide organisations in implementing such projects, contributing to a more equitable and sustainable future for everyone.

# Contents

# Introduction

The use of technology in developmental projects, especially social and economic development, is not new. Information and Communication Technologies (ICT) have been used in the delivery of education and health (telemedicine). Remote sensing and GIS tools have been used in water and soil conversation. Simple sensors and IoT (Internet-of-Things) devices have been used in micro-solar grids in remote areas. The diversity and scale of use have increased as technologies have matured or become cost-effective, and new applications have been identified.

IT services such as mobile-based applications or simple text-based messaging services enable farmers' access to data on weather forecasts, market prices, financing and insurance information and services, and good agricultural practices. ICT has also improved accessibility and enhanced learning experiences in education. It has benefitted not only the students but also teachers in India's rural areas. Telemedicine has been one of the oldest technologies that has improved access and efficiency in health services, especially preventive, in remote areas. Now digital health services are replacing some of those telemedicine formats perhaps with better patient engagement. Governments have also digitised most of their public services, but efficiency in the overall process still has substantial scope for improvement.

Technology's role in developmental projects in India is particularly interesting to document post-2013, when companies in India were legally obliged to undertake Corporate Social Responsibility or CSR projects. The law required companies to take a long-term and programmatic approach to CSR in partnership with implementing organisations, with Board oversight. While that, over the years, would change how CSR would be practiced in India, the application of technology in CSR has also undergone a change.

In the same period, the availability and affordability of different technologies has also increased. For instance, penetration of smartphones leading to access to Internet has meant that earlier forms of telemedicine and tele-education are now web-based accessible on smartphones. The same smartphone can operate and monitor solar pumps or drip irrigation systems. Self-Help Groups (SHG) or farmer producer organisations can have direct access to markets – both online and offline. These endeavours strive to empower communities by imparting the requisite skills and knowledge needed to proficiently use technology for the betterment of the beneficiaries. Thus, technology has become the backbone of CSR projects in addressing complex issues at scale, and in reaching to the remotest locations and implementing programmes.

The 25 case studies in this compendium illustrate that technology is being leveraged to maximise the impact that CSR projects could have in various developmental areas as discussed above. As per the survey analysis, 48% (high turnover), 36% (mid-turnover), 16% (low turnover) including MSMEs companies have invested in technology for better impact of their existing CSR projects .

**Specifically, technology benefits in CSR include:**

- **Enhanced data management and reporting:** By utilising digital tools, companies can manage, track and report their CSR activities more efficiently. Organisations can gather real-time insights and measure the impact of their CSR efforts, which could aid in optimal resource allocation and strategic decision-making.
- **Improved monitoring mechanisms**: Organisations can now leverage digital platforms for program management, enabling them to conduct real-time assessments of project performance.
- **Information dissemination:** Tools such as social media allow organisations to disseminate information about their initiatives.

- **Enabling innovative solutions**: Technology allows businesses to develop innovative solutions that address social and environmental challenges. For instance, blockchain could help with improving reliability of data sharing, whereas Artificial Intelligence (AI) could be used for monitoring social impact and measuring performance.
- **Digital inclusion:** Companies are leveraging technology to provide digital literacy and skills training, thus enabling communities to access broader economic opportunities. Projects on digital inclusion are often tied to welfare schemes of the Central and State governments.
- **Collaboration with implementing partners:** Companies also leverage technology in partnering with implementing agencies and other partner organisations for efficiency in implementation and monitoring.

Further, the integration of technologies and tools has enhanced the effectiveness (strategic implementation and monitoring), efficiency (optimising resource use), impact, and sustainability of the projects. This is echoed in the responses to the online survey conducted to supplement the case studies.
INR 114,771.7 crore was spent by companies on CSR in five years between FY 2018 and FY 2022 (MCA data). One can hope that technology use will maximise the impact on society and the environment, and hence increase the value created by thousands of crores spent every year.

Technology's role is not limited to project implementation. It has changed the way companies run and monitor CSR projects. Many companies use CSR dashboards for project management, that track progress in accordance to timelines, alter time and cost overruns, and enable timely interventions. Geo-tagging of specific activities, especially infrastructure created, is another technology use that provides accurate locational data. Data analytics tools are used for pre- and post-project surveys that help in CSR strategy and project design.

Technologies continue to improve and new technologies emerge, such as AI. One can only expect that these technologies when used collectively (for instance AI assisted IoT devices), will further improve the effectiveness and efficiency of CSR projects.

That said, the promise of technology-enabled value maximisation could be limited by practical challenges. Companies face a combination of challenges in implementing these technologies. As reported in the survey, these include limited community participation, inadequate capacities with implementing partners in handling technologies, integrating different technologies, and resistance to change within the company and among various partners and communities.

These challenges could be overcome by setting clear objectives and performance indicators, engaging key stakeholders in decision-making process, which means a more open communication and consultative process with them, skilling CSR employees and the key stakeholders on using specific technologies they will interface with.

# Case Studies

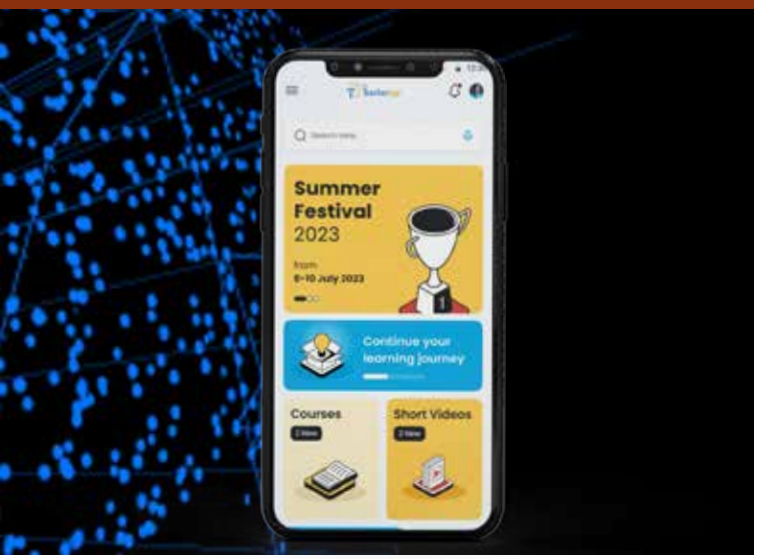
Bharti Airtel Foundation

**Bharti Airtel Foundation**

## TheTeacherApp

*Bharti Airtel Foundation's teachers' platform, TheTeacherApp aims to help teachers uplift their schools. We believe that happy & energised schools, engaged teachers, students and parents are key to school-transformation. The platform focuses on empowering teachers, school leaders and educationists with high quality, engaging content. The app's journey is seeing participation of thousands of teachers already. They are helping us create a roadmap for content and training courses based on their needs. We believe this is an app for the teachers, which is being shaped with immense influence of teachers across the country.*

**Mamta Saikia**
CEO, Bharti Airtel Foundation




### Summary

In the age of AI and digital learning, interactive apps are crucial for personalised student learning experiences. Empowering teachers to be impactful is equally important. DIKSHA continues to be a national level platform with a multitude of resources for students as well as teachers. Leveraging over two-decades of ground expertise from running Satya Bharti Schools and working with Government schools under its Quality Support Program, Bharti Airtel Foundation is building 'TheTeacherApp,' which provides self-paced capacity building courses for educators. While teachers have played a key role in influencing the content trajectory on the app, they continue to be a part of quality control before any content is published, making it unique. Currently, the platform is in Hindi & English, with a roadmap to infuse AI, making it interactive, safe and inclusive for teachers. TheTeacherApp boasts of nearly 80,000 teachers and educators from across the country, though its functions have recently started, underlining the fact that quality and relevant content inspires teachers to continuously invest in their professional development.

### Problem the intervention seeks to address

The Indian school system is one of the largest in the world with over 14.5 lakh schools and nearly 1 million teachers who require continuous in-service training as a part of their continuous professional development. Post COVID-19, while trainings have shifted back to their physical format, online courses and training sessions have largely become an integral part of everyone's routine. Progressive teachers are looking for resources and support to be more creative and impactful in their classrooms. With an ever-evolving education scenario and technology-led learning practices, teachers need a space where they can find contemporary training modules, classroom resources and quick reference materials.

Despite the abundance of content sources including social media, teachers' primary need for well-researched content to enhance their classroom experiences and students' learning needs are not consistently met. Furthermore, given the hectic schedules of teachers, they require a simple, intuitive and user-friendly tool to access the resources.

## Technology-enabled solution provided

Bharti Airtel Foundation has been committed to creating and supporting programmes that bring about sustainable change through education and use of technology. In its rural Satya Bharti Schools, teachers are making the best use of innovative teaching pedagogies through digital classrooms and apps/content to improve the learning levels of students. Satya Bharti Adarsh Senior Secondary Schools in Punjab offer Robotics and Advanced Technology Labs for students to explore AI, coding and new technologies. IT/ Innovation clubs introduced through the Foundation's Quality Support Program in partner government schools are fostering student innovation and application of ideas using available IT/digital tools and resources.

**Nearly 80,000+**
**Educators and Teachers across India**

**260+**
**Courses, Learning Bytes, Podcasts & Webinars**

TheTeacherApp is in continuation with Bharti Airtel Foundation's endeavours to integrate technology in the education space in line with NEP 2020, addressing the essential requirements of teachers towards enhancing skills and making a meaningful impact in classrooms. This free to use app offers a user-friendly interface designed with inputs from teachers to ensure intuitive navigation. It will collaborate with state governments and different B.Ed colleges to contribute towards the learning needs of new generation teachers.

The app provides self-paced courses, learning bytes, and expert-led webinars and podcasts. Users can access a wide range of high-quality resources for classroom implementation, including projects, assessment questions, teaching materials and interactive activities. The app also hosts regular competitions, quizzes, polls and events, providing teachers a platform to shine. Moreover, it provides valuable tools for parents to enrich their children's learning experiences at home.

## Challenges in implementing technology-enabled solutions

- The challenge during implementation lies in the continuous evolution of meticulously researched content that aligns with the dynamic needs of the teachers.
- Although teachers are incentivised for active participation on the app with rewards and recognition and exchange of best practices is encouraged within the teaching community, there is a need to further boost engagement levels and keep educators informed about the latest trends and requirements in the education sector.
- Central to these initiatives is the extensive engagement of educators, trainers and academicians to collaborate and ensure availability of customised learning courses for teachers.

## Impact of the technology-enabled solutions

TheTeacherApp is yet another contribution by the Foundation to the education sector, targeted at continuous skill development of teachers and educators in schools. In an impressively brief timeframe, the app has experienced significant growth, drawing in thousands of teachers who are eager to enrol in courses and obtain certifications. These educators are actively participating through webinars, videos, and podcasts, while also exchanging best practices with fellow educators on the app and shortlisting courses they wish to pursue in future. The app also showcases teachers sharing videos of their learnings and implementations in classrooms, impacting students positively. As technology continues to advance, 'TheTeacherApp' stands as a testament to the boundless possibilities of innovation in the world of education.

BOSCH

**Bosch Limited**

# Kani Tribal Farmers Livelihood Project

*Bosch's commitment to empower vulnerable communities and driving sustainable development has been one of the core elements of its social engagement initiatives. The successful planning and execution of the Kani Tribal Farmers Livelihood project by means of harnessing technology and fostering entrepreneurship, has resulted in improving their livelihood, build a sustainable model that preserves heritage, protects environment, and propels rural economies, staying true to Bosch's commitment of creating a positive and lasting change for the society.*

**Guruprasad Mudlapur**
MD, Bosch Limited &
President, Bosch Group India

## Summary

The Kani Tribal Farmers Livelihood Project is a transformative initiative aimed at empowering communities in Tirunelveli district of Tamil Nadu formalised in 2022-23. It is supported by Bosch Limited and implemented by Bosch India Foundation (BIF) by establishing the Joint Liability Groups (JLGs), setting up the "Kani Tribal Products" startup, utilising a modified mobile truck and starting an e-commerce platform. The project has significantly improved the economic condition of these tribal farmers especially the women of the community. The organisation contributed by promoting sustainable agricultural practices, equipping them with entrepreneurial skills and improving the marketing expertise for their minor forest produce.

## Problem the intervention seeks to address

The Kani tribe in Western Ghats of Kanyakumari and Tirunelveli districts have been facing social, economic, and geographic exclusion, along with a steadily depleting livelihood base, limited education, lack of awareness of their rights and the market potential. This has made them vulnerable to exploitation, distress migration, and debt traps. The community faces various challenges that limits them from enhancing their quality of life. Lack of a viable livelihood enhancement model has caused sourcing of produce from the farmer community challenging and reduced the involvement of these tribes, especially women. Moreover, the produce is sold at comparatively very low prices which resulted in unfair income in spite of their labour and the actual value of the produce. These, coupled with absence of credit and market linkages increases their challenges.

## Technology-enabled solution provided

The main objective of this project is to promote and sustain livelihoods of the tribal community, by strengthening their entrepreneurial skills and creating an exploitation-free market linkage for their minor forest produce. JLG was set up and capacity and knowledge were built through multiple training sessions. As a part of the training, JLGs (I, II and III) were trained to buy products from the tribal community farmers and stores, process, and package them. The JLG IV was trained to act as a channel between the three JLGs and consumers and trained on labelling, barcoding, and selling the produce to customers/end users. JLGs were formed post the required training and were supported through multiple interventions, but not limited to the following:

- The intervention helped in registering “Kani Tribal Products”, a first tribal community start-up, training the JLG’s to understand the importance of maintaining quality, financial diligence, focus of the customer and avoid intervention of middlemen to maximise their return on investment.
- JLG members were trained to use the digital billing and payment system. An e-commerce website www.kanitribalproducts.com, was launched for access to wider market, geographical coverage beyond the district.

## Challenges in implementing technology-enabled solutions

- **Lack of access to digital infrastructure**

  The tribals reside in remote locations with limited mobile network and internet connectivity. Only a small number of people possess a phone.

- **Adapting to technology and digital literacy**

  The organisation struggled to convince community members to adopt new technology, as they were resistant to change. Limited education and language barriers further hindered their understanding of its benefits.

- **Financial sustainability**

  Despite providing seed funding to JLG to initiate the project, seeking loans, timely repayment was difficult. Customers took time to use and trust the products to make repeat purchases. Developing strategies for pricing were time consuming but essential for providing fair prices to the community.

## Impact of the technology-enabled solutions

The project built economic resilience by preserving traditional knowledge, raising awareness, and promoting sustainable production of mini forest products like medicinal herbs and artisanal crafts. This initiative improved the livelihoods of 128 households and 98 farmers, trained 27 tribal women and formed four JLGs, and helped reduce migration. The mobile shop (mini truck) enabled JLG members to prepare and sell products while reaching markets up to 100 km away. E-commerce platforms eliminated 85% of middlemen, ensuring fair prices for farmers' organic produce. 98 farmers nearly doubled their income with prices no longer set by intermediaries and FY 2023-24 saw a turnover of INR 1 million, a 100% increase from FY 2022-23.

Chitkara University

# Empowering Lives: From Health Awareness to Digital Literacy

*Leveraging technology is crucial for advancing community health in alignment with sustainable development goals. Innovative digital health solutions, telemedicine, and data-driven healthcare systems enhance access, improve outcomes, and promote well-being. By integrating technology, we can build resilient health systems that ensure equitable and sustainable health benefits for all.*

**Madhu Chitkara**
Pro Chancellor, Chitkara University


## Summary

'Swasthya se Digital Saksharta tak', is a CSR initiative envisioned by Chitkara University and Punjab Chemicals and Crop Protection Ltd. to empower rural communities with the involvement of multiple stakeholders. The project focuses on improving health and digital literacy among rural women. The first phase assessed health and digital literacy awareness in two adopted villages through medical camps, where data from 221 women was collected and analysed. The initiative seeks to provide smart tablets with content on health education to selected rural women, highlighting the potential of technology-integrated education to enhance health awareness and uplift rural communities, with scalability for broader impact.

## Problem the intervention seeks to address

Rural women face critical challenges in both health and education, which significantly impact family well-being and future generations. These challenges arise from gaps in awareness and limited access to health resources, compounded by substantial barriers that hinder their ability to seek and utilise these services. This project aims to address these issues by identifying and bridging these gaps, enhancing women's knowledge and skills through targeted educational programs and digital training. By empowering rural women with essential information and tools, the project seeks to improve their health management and overall quality of life.

## Technology-enabled solution provided

The CSR initiative rests on a central idea - to impart health education and digital literacy among rural women by providing them with smart tablets that empower and enable them to access the world and realise their dreams. The big focus is on spreading happiness amongst rural women, by way of health and digital literacy initiatives, leading to a positive ripple effect that uplifts entire communities.

The project will bring forward the relevant health information for women residing in rural Punjab by using technology. In the next phase of the project, rural women will be equipped with smart tablets, which will have the LMS software (Brightspace D2L) with pre-loaded health-related videos along with important YouTube links to furnish a large enough video database to expand women's health awareness. Given the limitations of internet connectivity in rural areas, pre-loading videos onto the tablets is crucial to ensure continuous access to the information. Digital experts use tools like DaVinci Resolve, Canva, and AI to craft engaging content in native languages or with subtitles.


## Challenges in implementing technology-enabled solutions

The project team faced challenges in selecting the right villages and reaching rural women due to male-dominated Panchayat interactions. After identifying Bijanpur and Ramnagar villages, they engaged with local doctors, Panchayat members, and ASHA workers to plan women-centric health initiatives. The project began with free medical check-ups and health education camps, where doctors from Fortis, Indus, and Gyan Sagar hospitals provided services to 221 rural women.

## Impact of the technology-enabled solutions

The CSR project ‘Swasthya Se Digital Saksharta Tak’, taken up by academia and corporates together, is a long journey towards positively impacting rural women. The project impacted over 200 families, enhancing women's awareness on personal hygiene, digital literacy, dental health, nutrition, menstruation, menopause, and pregnancy. It offered free medical check-ups, medicine distribution, and health education. The project engaged 68 students, fostering digital skills, social responsibility, emotional intelligence, and communication abilities, preparing them for future corporate roles.

For academia, the initiative aligns with the New Education Policy 2020 and UN SDGs 3, 4, 10, and 17, promoting equitable education and healthcare for women. It has also strengthened community ties through active involvement of local community members, Panchayat leaders, ASHA workers, medical professionals, and teachers.

CRISIL Foundation

**CRISIL Foundation**

## Financial Literacy App

*In India, CSR has evolved to a point where it can be effectively used to address large-scale problems. Incorporation of technology will be crucial in this effort, necessitating CSR professionals to strategise how it should support the initiative, improve results, optimise costs, and lead to economies of scale.*

**Maya Vengurlekar**
Chief Operating Officer
CRISIL Foundation

### Summary

CRISIL's flagship Corporate Social Responsibility (CSR) initiative, Mein Pragati, has established an assisted technology model through an all-women cadre of Sakhis, a pool of trained community workers. This cadre has helped address last-mile constraints in achieving awareness and access to financial services and social security schemes by levying a nominal fee, which makes the model financially self-sustainable.

GramShakti, a multilingual android app-based learning-cum-certification programme, is the main tool for capacity-building of the Sakhi cadre. At present, the cadre has 5,274 members, of which 2,900 are enrolled and 1,500 have completed the GramShakti certification process.

### Problem the intervention seeks to address

Women in India continue to face financial exclusion, according to the Global Findex 2021, only 43% women have access to formal financial services compared with 62% men. This financial exclusion gap widens in case of rural, poor, or marginalised women – a triple divide. It is further exacerbated by limited/lack of access to digital technology.

This impacts their financial independence and empowerment. At a household and community level, this is largely due to lack of awareness and access to financial services as well as apprehension in approaching the formal financial services sector, access and understanding of digital services and platforms, understanding of the process and absence of documents, general high distress, and vulnerability to risks and investments in fraudulent and dubious schemes.

## Technology-enabled solution provided

The Mein Pragati programme is implemented in 5,000 villages across 32 districts in Assam and Rajasthan. Through this initiative, a team of trained rural female community workers, called Sakhis has been built. Till date, over 5,200 Sakhis have positively impacted approximately 2.2 million community members by building their financial capacities and facilitating formal banking, financial products and government welfare schemes.

The GramShakti App, which has helped in training the Sakhi cadre; has fully regionalised, multi-lingual content in Hindi, Marathi, Assamese, Bengali, Punjabi, and English, covering 12 modules on financial literacy and inclusion. The app has a story-based audio-visual format for content, mobile-friendly navigation, through a structured certificate-based programme that combines theory and practical exercises to enhance understanding of financial concepts. To be certified, these trained community workers or Sakhis have to clear an online Multiple-Choice Questionnaire-based test that can be taken on a mobile phone. Offline access and support is available to Sakhis. There is also a Sakhi support and helpline service through phone call and WhatsApp.

The larger solution is to provide the women with an ‘assisted tech model’ – a Sakhi rooted in the community and trained using a tech-enabled learning solution to help excluded women overcome the barrier to access digital financial services.  Additionally, GramShakti also allows CRISIL to scale the impact by replicating the success of `Sakhi' concept to areas where CRISIL's Mein Pragati does not have a direct presence, seamlessly and quickly.

## Challenges in implementing technology-enabled solutions

- Infrastructural challenges included the limited availability and ownership of smartphones among rural women, particularly during the program's launch. Additionally, access to the internet and reliable network connections posed significant technical difficulties.
- Educational challenges faced in app-based learning like availability of time and connecting with trainers to clear doubts especially during non-working hours.
- Initially, trainees faced challenges in adapting to app-based training, but this improved over time with guidance and support as the course progressed.

## Impact of the technology-enabled solutions

Technology has been a key enabler to reach out to more communities and make a greater impact.

- Nearly 40% Sakhis are able to generate more income through the GramShakti certification programme.
- The content is highly relevant, easy to understand, and beneficial for the cadre, leading to a high satisfaction rate. Certification is considered as a significant milestone for a Sakhi and should be emphasised more. A 'phygital' training approach, combining GramShakti with physical field support, is recommended.

With support of the RBI through its MoneyWise Centre for Financial Literacy (CFL) project, the organisation is starting to leverage this platform to explore pan-India scalability through its 675 MoneyWise Centres (block-level satellite offices set up by CRISIL Foundation to drive last mile financial awareness and inclusion) spread across 14 states and four Union Territories and expects to reach more than 60,000 villages by 2025.

DCM SHRIRAM
Growing with trust

**DCM Shriram Foundation**

# Mother & Child Program-Mobile Health Unit Initiative

*Technology has revolutionised the development sector by enabling more effective data collection, analysis, and dissemination. Through the power of data, we can now measure impact with precision, tailor interventions to specific needs, and empower communities with the information they need to drive their own progress. In this era, data is not just a tool-it is a catalyst for sustainable development.*

**Ajay S Shriram**
Chairman & Senior MD
DCM Shriram Ltd.

## Summary

DCM Shriram Foundation's initiative aims to improve maternal and child health through Mobile Health Units (MHUs) which was launched in 2022-23 as a pilot in UP. In 2023-24, four MHUs were launched in Gujarat and UP, and one was launched in Rajasthan in March 2024, bringing Antenatal Care/Postnatal Care (ANC/PNC) services to pregnant women and lactating mothers with a focus on identification of High-Risk Pregnancy (HRP) and providing timely and quality healthcare in collaboration with the Health Department. Piloted in Hariawan block, Hardoi district, the project has been implemented through partner NGOs Mamta – HIMC and CSR NGO Box.

## Problem the intervention seeks to address

High infant and maternal mortality in India necessitate targeted preventive healthcare. Remote villages lack essential maternal and child health services. Through MHUs equipped with medical personnel (female doctor/nurse/administration staff) and necessary equipment's for tests, these services are delivered directly to the beneficiaries.

## Technology-enabled solution provided

- Tele-consultation centres at the CHC with senior gynaecologists' consultations maintaining consistent communication with beneficiaries during the 45-day cycle of the MHU as referred.
- Data is provided to the tele counsellors and based on an SOP; they give the advisory for a referral to go the CHC.
- A mobile application developed for capturing data of each beneficiary, allowing efficient management of beneficiary information on visit to the MHU.
- The mobile app data feeds into a dashboard which is analysed and reviewed on a weekly basis to understand any trends/concerns for the mother or child.
- Use of digital IEC material displayed on the MHU van's LED screen for better information dissemination.

## Challenges in implementing technology-enabled solutions

Implementing technology-enabled solutions often present challenges, including building trust in the technology and ensuring the necessary infrastructure is in place. In developing a data collection app, faced several hurdles. As a first-time exercise, there were no existing models to follow, therefore, to maintain record of various health parameters like Antenatal Care (ANC) visits, an app was configured.

Beneficiary-centric design is crucial and based on user feedback to enhance trust and adoption of the technology. Collaboration with experts ensures that the solution meets specific field requirements. These improvements led to a more efficient app, better functionality and accuracy, and seamless operation even in internet-inaccessible locations.

The developers needed a thorough understanding of the health field's specifics. Continuous communication between technical teams and health experts was essential to bridge this gap. As users were uncomfortable sharing their Aadhar card details, the app was modified to take their phone numbers and MCP (Mother Child Protection) card numbers to ensure their comfort and privacy.

From the MHU perspective, real time data capturing in areas without internet connectivity was a significant challenge. This was overcome by designing the app to function offline, allowing data to be captured and stored until connectivity was restored.

## Impact of the technology-enabled solutions

The reach and efficiency of healthcare services have significantly increased accuracy and timely data collection, better management of high-risk pregnancies, and enhanced coordination with government healthcare systems as the integration of data has been instrumental for a more reliable representation.

The six MHUs reached over 13, 200 beneficiaries, conducting 14,740 ANC checks and 10,911 PNC checks. Additionally, 2,173 High-risk Pregnancies (HRPs) were identified, capturing data of 36.83% HRP rate. 1, 221 of these identified HRPs had institutional deliveries, a figure influenced by ongoing pregnancies and beneficiary migration in FY 2023-24.

Capacity building for ASHAs has increased ANC check-ups, improved identification and management of HRPs, contributing to reduced infant and maternal mortality rates. HRP rate during the baseline showed a figure of 0.02% which now records 26% at the end of two years which was at 30% plus at the end of the first year of operations due to proper data collection and measurement matrix.

This intervention addresses several SDGs, including SDG 3 and 5 and aligns with Schedule VII areas under the Companies Act 2013, focusing on promoting healthcare and sanitation.

Dr Reddy's Foundation

# Short-term Skill Development of Youth and Persons with Disability

*Dr. Reddy's Foundation focuses on improving outcomes in healthcare, education, livelihoods, and climate action by working on two key interventions. The first strengthens existing public and private systems, while the second introduces transformative interventions. These transformative efforts rely on community platforms and technology, leveraging upcoming advancements in scientific application and computational technology.*

**Shamik Trehan**
CEO, Dr. Reddy's Foundation

## Summary

The GROW portal is a technology-enabled platform developed by Dr. Reddy's Foundation (DRF) in FY 2017 with support from Dr. Reddy's Laboratories Limited with skill development training across 120 DRF centres in 22 states. This facilitates seamless execution of programme processes, monitoring, and data-driven decision-making and supports operations by capturing comprehensive data at each stage of the youth's journey, from training, assessments to mapping of placement and job retention.

## Problem the intervention seeks to address

Delivering high-quality, short-duration skill development programmes at scale present significant challenges. Structured data capturing of all programme processes is essential to facilitate timely decision-making, ensuring quality execution and monitoring which ultimately improves the delivery and impact of such skill development programmes.

## Technology-enabled solution provided

The portal addresses problems by capturing the complete life cycle of trainees and onboarding employers for assisting trained youth with the right job opportunities. The portal captures the complete socio-economic profiles of trainees, including their qualifications and competencies before joining training at DRF skill development centres (through a pre-assessment, before training), their job aspirations, module wise training they attend, shifts in their competencies (through a post-assessment, after training), as well as their placement and retention details. This comprehensive data collection ensures that the entire lifecycle of the trainee is documented in a structured way.

A crucial component of the skill development programme is facilitating job placements for trained students. The portal features a tech-enabled 'matchmaking engine' that uses a sophisticated algorithm to compare the attributes of trainees with job requirements, ensuring a precise fit. Other benefits include simplifying the interview process, making it more effortless and standardised across all regions of operation.

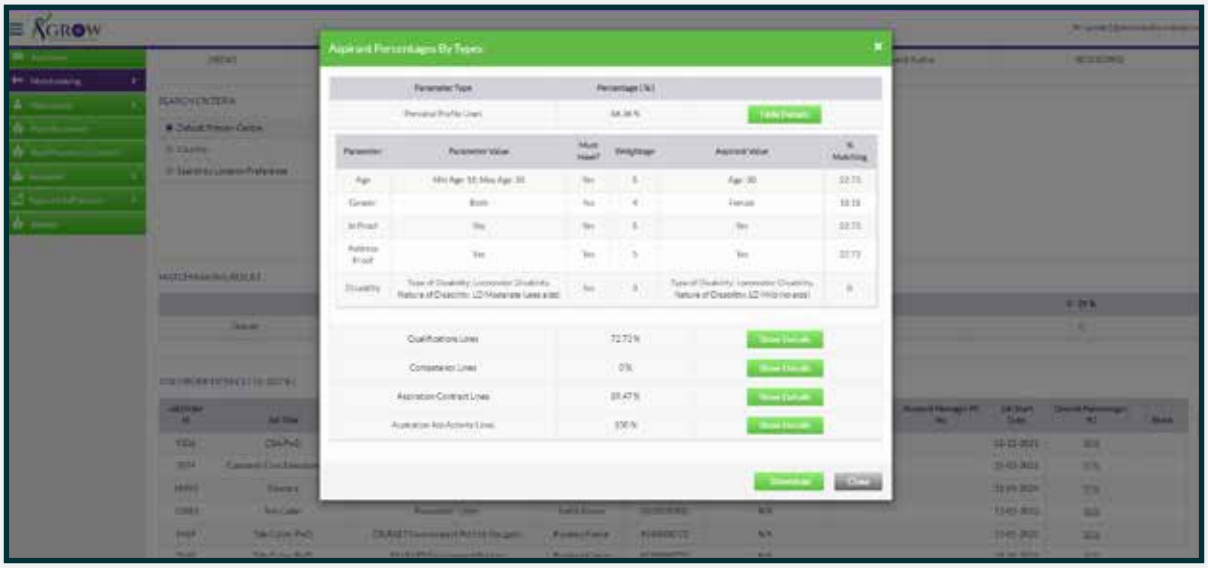
To develop the portal, a renowned technology agency was engaged developed using Microsoft Stack and Microsoft Azure as cloud partners. An initial investment of around INR 13 million was made to develop and perfect this solution in FY 2017.

## Challenges in implementing technology-enabled solutions

- Driving change in the management process and aligning team members on the benefits of the portal. Like any other technological adoption faces initial resistance, the organisation also faced a similar situation to shift from familiar to an automated system. Addressing their concerns and demonstrating long-term benefits of the portal and the positive impact on the portal, will improve teams' acceptance and productivity.
- Ensuring that over 600 users are adequately trained to use the platform effectively. This required developing comprehensive training modules, training the users on them and providing continuous support to help them navigate and utilise the portal smoothly.

## Impact of the technology-enabled solutions

- The portal has had a profound impact on both qualitative and quantitative aspects of team operations and student success, resulting in enhanced efficiency, reduced errors, and better alignment of the skill development programmes with job market needs.
- The portal has helped DRF in quality execution and monitoring of its scaled skilled development programmes. Since its inception the portal has captured the complete lifecycle of more than 100,000 trainees and onboarded more than 6000 employers. All the internal review meetings are planned based on data collected through this platform.
- The portal has streamlined data collection and sharing processes, both at central and MIS levels at the head office, thus significantly reducing approximately 40-50% time spent on these tasks. This has allowed teams to focus more on supporting the students.
- The matchmaking engine has greatly improved the process of finding appropriate job placements for students - right job for the right aspirant. By mapping the student's competencies and aspirations with employer requirements, the portal intends to support better job fits and higher satisfaction rates among graduates. About 72% of youth interviewed accepted the first job they were offered as per the best mapping provided by the portal. This has helped to improve the placement rates to 75% and above.



STEERING THE PLANET TO NET ZERO

**EKI Energy Services Limited**

## Innovative Cooking Solution

*Surya Nutan represents a transformative step toward cleaner cooking solutions and improved and enhanced public health, reducing environmental impact and boosting energy security while empowering communities across India. Our goal is to make clean cooking accessible and sustainable for all communities, driving both environmental and socio-economic benefits.*

**Manish Dabkara**
Chairman & MD
EKI Energy Services Ltd.

### Summary

The global challenge of achieving Net Zero emissions by 2050 remains daunting, particularly for South Asia, where severe air pollution and health issues persist. The Surya Nutan Indoor Solar Cooking System, developed by Indian Oil Corporation Limited (IOCL) and implemented by EKI Energy Services Limited (EKI), offers a solution for sustainable cooking. This patented technology aims to increase energy security, reduce air pollution and alleviate the drudgery of traditional cooking methods. This initiative seeks to improve public health, support economic development and address gender disparities.

### Problem the intervention seeks to address

In rural and semi-urban areas, traditional biomass cookstoves remain widely used, contributing significantly to indoor air pollution. These stoves rely on solid fuels like wood, coal and crop residues, emitting harmful pollutants that exacerbate health issues and environmental degradation. Despite government efforts and subsidies to promote cleaner cooking technologies, many households continue to rely on these traditional stoves due to high upfront costs and limited access to modern alternatives. This is further compounded by unsustainable operation costs associated with cleaner cooking solutions like Liquefied Petroleum Gas (LPG). Although government programmes such as the Pradhan Mantri Ujjwala Yojana (PMUY) aim to increase LPG access among low-income households, the high cost of refilling LPG cylinders remains a barrier for many families.

### Technology-enabled solution provided

In response to the critical challenges posed by air pollution and its detrimental effects on health and economic productivity, EKI along with IOCL has undertaken the Surya Nutan Indoor Solar Cooking System project for addressing both environmental and socio-economic issues related to traditional cooking methods.

By integrating PV (photovoltaic) technology with thermal storage, the system delivers a reliable, 24x7 cost-effective cooking solution. This approach not only harnesses solar energy but also includes auxiliary support from grid power, ensuring consistent operations in the absence of solar energy. The system is engineered to be user-friendly, minimising upfront investment in cookware, reducing extensive operation and maintenance services, which makes it beneficial for economically marginalised communities.

The technology comprises a stationary, rechargeable indoor solar cooker that converts solar energy into heat through a specially designed heating element. This heat is stored in a thermal battery, which then releases the stored energy for cooking purposes. The system is equipped with a detachable heat control assembly that allows for on-demand energy release, providing versatility for various cooking needs. This ensures minimal radiative and conductive heat loss, making it efficient and effective for all seasons, considering the diverse culinary needs of Indian households.

To facilitate widespread adoption and utilisation, a pilot programme was initiated in Dhar district, Madhya Pradesh in January 2024, targeting to distribute 1,000 solar cookers. This programme was supported by GHG Reduction Technologies Pvt. Ltd (a subsidiary of EKI) in collaboration with the Madhya Pradesh Urja Vikash Nigam (MPUVN) as well as local state administration.

## Challenges in implementing technology-enabled solutions

Implementing the programme in remote and underserved areas presents a range of challenges.

- Limited knowledge and awareness among villagers about the benefits of solar cooking technology. Many communities exhibited resistance to its adoption. This was addressed through various communication methods which included hands-on training and educational efforts for wider adoption, acceptance and building trust.
- The absence of reliable transportation routes to difficult terrains, remote locations complicate the distribution and installation of the systems and presents both logistical difficulties and increased costs.
- Existing traditional cooking methods are deeply entrenched in these communities and transitioning to solar cooking requires overcoming cultural resistance.

To tackle these challenges, the organisation employs innovative strategies. They adapt communication approaches to effectively convey the value of solar cooking technology and implement creative solutions to overcome logistical issues.

## Impact of the technology-enabled solutions

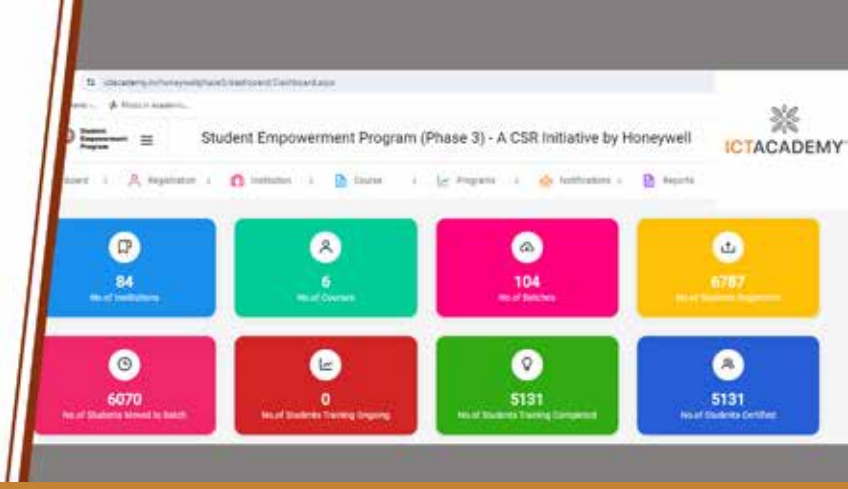
The system is expected to significantly improve public health by reducing indoor air pollution. Lower exposure to harmful pollutants will decrease the incidence of respiratory and cardiovascular diseases, reducing premature mortality. The reduction in biomass use also contributes to environmental benefits, such as decreased deforestation and lower greenhouse gas emissions. The indoor solar cooking system also generates carbon credits while contributing to community and sustainable development; this green revenue further supports its production, distribution, and adoption.

The initiative supports economic development by creating jobs related to installation, maintenance, and training. Improved health and reduced time spent on fuel collection and cooking enhance productivity and quality of life. The programme also contributes to energy security by reducing reliance on imported fuels and promoting the use of locally available solar energy.

The project aligns with multiple SDGs such as 1, 3, 7, 8, 13 & 15 and represents a significant step toward cleaner energy and enhanced quality of life.

ICTACADEMY

**ICT Academy**




## Employability Skill Training

*At ICT Academy, we recognised the critical need for a centralised, up-to-date online presence to enhance stakeholder engagement and streamline data management. By leveraging robust technology solutions, we have transformed our CSR initiatives, improving transparency, decision-making, and accountability while fostering a stronger, more informed community of stakeholders.*

**Srikanth V**
Chief Executive Officer,
ICT Academy of Tamil Nadu

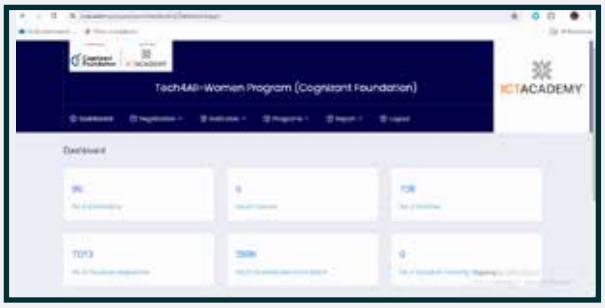
### Summary

ICT Academy currently implements of two unique CSR initiatives, Honeywell Student Empowerment Programme and Cognizant Foundation's Tech4All Programme of the organisation that collectively benefitted 32,000 individuals by establishing over 600 Centres of Excellence for women and youth. These initiatives focused on empowering students of higher education, especially women with advanced IT skills, and training educators to become mentors.

The organisation, working in concurrence with the objectives of the UN and CSR mandate, has been collaborating with organisations in developing and implementing high-impact CSR programmes in the areas of education and skill development, specifically benefiting rural India in terms of poverty eradication through skilling, entrepreneurial capacity building, invigorating innovation in an inclusive manner.

### Problem the intervention seeks to address

The organisation faced challenges in engaging stakeholders due to the absence of a centralised, up-to-date online presence and robust database systems, which impacted decision-making, project initiation, and transparency. Manual processes, limited communication, and inadequate tracking further compromised accountability. Additionally, the organisation struggled with effective outreach and engagement, particularly with SPOCs and students enrolled in projects. Managing and securing data was challenging due to complex registration processes and the lack of user-friendly database systems. Measuring the impact of initiatives was difficult without advanced analytics, and communication channels were often ineffective and untargeted. The absence of an online system also hindered assessments and evaluations, complicating the administration of tests, surveys, and feedback forms, leading to insufficient data collection.





## Technology-enabled solution provided

- **Websites for Outreach:** By maintaining an up-to-date online presence, the organisation ensures that all concerned parties have easy access to relevant information.
- **Database Using Servers and Cloud:** Robust database systems are essential for managing the extensive data from these initiatives using servers and cloud-based solutions for secure and efficient data storage and retrieval, supporting real-time access for informed decision-making and streamlined project management.
- **Online Mode for Registrations and Automated Communications:** Simplified and automated registration processes enhance student participation by utilising online platforms for registrations thus, reducing administrative burdens, ensuring seamless communication and keeping students and SPOCs informed about project updates. Further, comprehensive dashboards provide real-time insights into project progress and performance metrics.
- **Integrated Analytics (Dynamic Reports):** Advanced analytics play a crucial role in evaluating the impact of initiatives, integrated analytics in dashboards generate dynamic reports that offer in-depth insights into project outcomes, beneficiary reach, and resource utilisation. These reports support continuous improvement by highlighting areas of success and opportunities for enhancement.
- **Communication (Using Database):** Streamlined communication channels leverage the database to ensure efficient and targeted outreach. The communication strategy includes personalised messaging based on stakeholder profiles, ensuring that information is relevant and impactful.
- **LMS for Assessments:** Learning Management Systems (LMS) are integral to conducting assessments and evaluations. LMS has catapulted the administration of tests, surveys, and feedback forms to all the beneficiaries (over 30,000), providing valuable data on project effectiveness and beneficiary satisfaction.

## Challenges in implementing technology-enabled solutions

Establishing and maintaining technical infrastructure, such as servers and cloud services, requires significant investment and expertise, with reliability, scalability, and security being critical. User training is essential, ensuring all stakeholders are equipped to use the technology effectively, regardless of their proficiency. Data security is a paramount concern, requiring robust measures like encryption and access controls to protect sensitive information. Integrating various technological tools and systems can be complex, necessitating careful planning to ensure compatibility. Scalability is also crucial, as solutions must handle increased demands and data volumes. Also, encouraging user adoption, especially among those resistant to change, requires effective communication, user-friendly interfaces, and ongoing support.

## Impact of the technology-enabled solutions

With a technology-driven approach, the organisation has outperformed its peers for over a decade, impacting 1.68 lakh students, 13,100 educators, and 1,100 labourers through skill development and education. Advanced analytics have improved social outcome measurement, enhancing donor satisfaction and impact. Technology has streamlined resource allocation, enabling larger projects within existing budgets, while digital tools have strengthened stakeholder engagement and fostered a sense of community. Real-time data allows for instant project adjustments, ensuring long-term relevance. Overall, this strategic use of technology aligns CSR efforts with the goal of impacting 25 million people by 2030 and contribute to competitive advantage.

Indian Oil Corporation Limited

# Tackling Lake Pollution in India

*At Indian Oil, our commitment to Corporate Social Responsibility is deeply intertwined with adoption of latest technologies. We believe that leveraging advanced technologies not only enhances our operational efficiency but also amplifies our impact on society. By integrating these elements, we strive to drive positive change and create value for both our stakeholders and the broader community.*

**Rashmi Govil**
Director HR, Indian Oil Corporation Ltd.

## Summary

The problem of lake cleaning in India is a multifaceted issue that encompasses environmental, social, and governance challenges. Several factors contribute to the degradation of lakes across the country which include pollution, eutrophication, lack of maintenance, climate change and lack of awareness. In India, various initiatives have been implemented to address the issue of cleaning lakes off both organic and inorganic waste but there is a lot to do in this direction. The intervention at Bindusagar Lake, a significant water body in Bhubaneswar, addresses lake pollution through Indian Oil's CSR project, "Science for Society", in collaboration with the Institute of Chemical Technology Indian Oil Odisha Campus Bhubaneshwar (ICT-IOCB), by deploying Hydrodynamic Cavitation (HDC) a patented technology, of Prof. A. B. Pandit, Vice Chancellor of Institute of Chemical Technology, Mumbai.

## Problem the intervention seeks to address

While both organic and inorganic waste pose significant challenges to the health of lakes in India, their characteristics and management strategies differ due to distinct sources, impacts, and environmental behaviours. Effective lake cleaning and conservation strategies require targeted approaches that address the specific nature of both types of waste to ensure sustainable management and restoration of these critical water resources. The Bindusagar Lake, spread over 22 acres, is one of the popular tourist attractions of Bhubaneswar. The lake water gets contaminated with organic matter from various rituals performed daily, which has been leading to bad odour, unclear and polluted water.

## Technology-enabled solution provided

HDC is a green, advanced oxidation process, that can overcome the present inferior parameters of water quality in terms of disinfection, purification, energy efficiency, at an affordable cost to satisfy human needs. During this process, the algae/organic matter get destroyed and the objective of improving water quality in terms of reduced COD, BOD, CFU count etc. is achieved. Alongside, the water becomes more transparent, odourless and visible till the bottom of water body/lake. All this is achieved without using any chemical which is the hallmark of this technology. At the lake, four pumps of 100 m3/ hr capacity consuming 22-25 KW energy per hour running eight to ten hours per day are deployed at a project cost of INR 70 lakh which improve the quality of water and odour six to eight weeks.

## Challenges in implementing technology-enabled solutions

Addressing the challenges requires a multi-pronged approach that includes strengthening governance frameworks, enhancing community engagement, securing adequate funding, leveraging technology for monitoring and management, and ensuring regulatory compliance. Some of the key challenges are:

- **Multiple Stakeholders and Coordination Issues:** Bringing all the stakeholders like the temple administration, local city administration, local community, and the technology implementing partner was a key challenge. There was a need to consider different aspects and views of each stakeholder and convince them about the harmless process of lake cleaning without disturbing their daily rituals.
- **Legacy Pollution and Historical Factor:** As rituals are closely associated with this lake, the disposal of waste (flowers, food offerings, religious idols etc.) into the lake had several environmental and ecological impacts.
- **Legal and Regulatory Frameworks:** Inconsistent enforcement of environmental regulations and weak legal frameworks for waste management and pollution control undermined the efforts to clean this lake on a sustained basis.

## Impact of the technology-enabled solutions

Despite the hurdles mentioned, the HDC project achieved remarkable results, significantly reducing Biochemical Oxygen Demand (BOD) from 16 to 2, Chemical Oxygen Demand (COD) from 32 to 12 and improving water transparency. This also helped in reduction of algal blooms, and pathogen inactivation.

By and large, it can be concluded that the technology of HDC as employed in Bindusagar has yielded desired results and people around the location are acknowledging the same based on results of this project. HDC technology can be replicated at many such other lakes across India.

JK Lakshmi Cement Limited

# Vidya Scholarship

*Integration of technology is our foremost priority in our CSR at JKLC. JK Lakshmi Vidya Scholarship Programme through digital "Vidyasaarathi" web portal has facilitated us to reach more aspiring and needy youth across India. The initiative has made scholarship process easy and accessible to youths to fulfil their educational dreams.*

**Vinita Singhania**
CMD
JK Lakshmi Cement Ltd.


## Summary

Students from economically challenged groups and families drop out from the education system due to limited financial resources. This coupled with lack of access to government scholarships further aggravates the situation. Most of the private institutions' scholarships are either need or merit-based. The JK Lakshmi Vidya Scholarship Programme was launched in FY 2018-19 to address these gaps and to extend financial support for needy and meritorious students to continue their education with dignity. This helps eliminate the uncertainty often associated with traditional scholarship schemes. The programme provides a structured and grid-based selection criteria with a transparent process from enrolment of students to transferring the benefit digitally into their bank account.

## Problem the intervention seeks to address

Students had to submit manual application forms with supporting documents earlier, that needed to be checked, and records maintained. Due to this process, it took eight to ten months in application selection, verification and finally the disbursement of payment. A larger number of students could not be mobilised due to limited time and engagement in other CSR initiatives. As a result, the benefits were limited to only locations where the organisation had presence. This simplifies the application process and ensures transparency in scholarship distribution.

## Technology-enabled solution provided

The programme addresses barriers by offering a tech-enabled platform. The organisation believes that empowering youth through educational support, especially with the inclusion of digital platforms, is a multifaceted approach that can significantly enhance their prospects for a brighter future. JKLC Ltd. partnered with TISS (Tata Institute of Social Science) who have an agreement with NSDL e-Government Infrastructure Ltd.

TISS has made services of “Vidyasaarathi”, a platform by NSDL e-Gov available for the management of scholarship schemes for various fund providers. This is an online portal that connects corporates and students on a single platform and helps effectively implement an end-to-end scholarship grant programme.

This tech-enabled approach helps meet the programme’s objective of extending financial support to needy and meritorious students by simplifying the application process and making it accessible to a broader audience so that they can complete their education with dignity. Students can track the status of their applications in real-time, receive messages on the mobile phone which eliminates the uncertainty often associated with traditional scholarship schemes.

Through this portal, students can submit all documents required w.r.t qualification for a scholarship. The portal follows the GRID Model in which students are scrutinised on different criteria’s such as annual family income, persons with disability, social marginalisation etc.  The platform also provides an option to renew the scholarship next year if students have improved their academic performance.

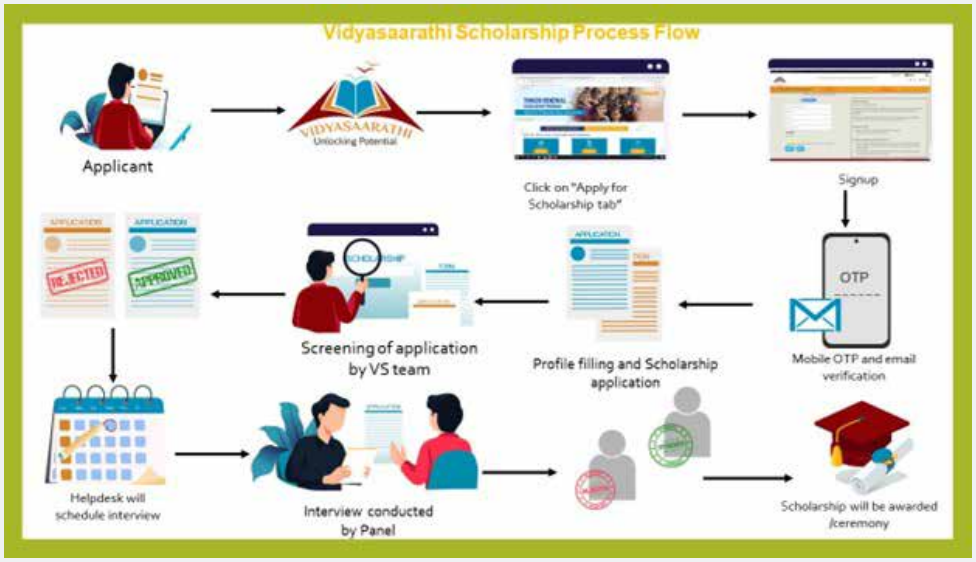
## Challenges in implementing technology-enabled solutions

Despite the numerous benefits, the integration of JK Lakshmi Vidya Scholarship through the “Vidyasaarathi” digital platform faced challenges such as

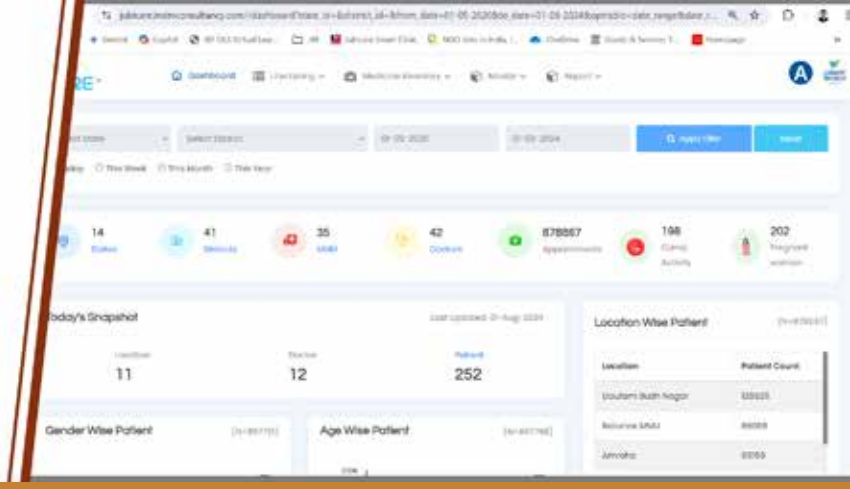
- **Internet connectivity**: Most of JKLC Ltd.’s CSR locations are in remote areas where internet connectivity is poor. To resolve this issue, scholarship camps were organised in schools, where high-speed internet facilities were available to enable students fill-up the application.
- **Less familiarity and awareness about digital platforms amongst rural youth**: Due to higher dependency on E-mitra and local computer shops, youth were unaware of digital/online scholarship programmes. To resolve this, efforts were made in the field to make students aware of the scheme.

## Impact of the technology-enabled solutions

The project has been successful in terms of creating a positive impact in the lives of youth by facilitating financial support to the needy and aspiring. In the last three years, the programme has benefitted around 2,000 youth (60% female and 40% male) with INR 1.81 Cr. since FY2020-21 to 2023-24 across India. These scholarships have supported students in covering the expenses of tuition fees for schools, colleges, professional courses, coaching for competitive exams, and even sports coaching. With these initiatives, the organisation has successfully supported the SDG-4 (Quality Education). As it continues to expand its reach, the programme promises to empower even more young people, helping them overcome financial barriers and unlock their full potential.



## Jubilant Bhartia Foundation (JBF)




# Simplifying Healthcare Management

*Through the JubiCare initiative, JBF is trying to weave in the technology to the rural healthcare system to transform lives and health seeking behaviour in communities. Our commitment has contributed to bridge in the healthcare divide and make it accessible, affordable and inclusive with innovation and empathy. We believe that our efforts can build a healthier tomorrow, enhancing the productivity of members of our country irrespective of their geographies and conditions.*

**Vivek Prakash**
SVP & Head,
Jubilant Bhartia Foundation


## Summary

JUBI CARE, a Health Management Information System (HMIS) developed by Jubilant Bhartia Foundation (JBF), is a user-friendly platform, with separate interfaces for counsellors, doctors and pharmacists. This aims to streamline the healthcare management, creating a seamless flow right from registration of a patient until their treatment. The intervention utilises highly optimised hardware and software components to create a comprehensive system that improves healthcare delivery and data management.

The programme spread across 26 locations and 12 states was developed to operate in low-connectivity areas with high inflow of patients and its adaptability & acceptability to the diverse needs of rural healthcare providers.

The technology was rolled-out during first phase of COVID-19 as a telemedicine application to continue services in the areas which involved extensive field testing, feedback and training sessions for healthcare workers to ensure smooth adoption.

## Problem the intervention seeks to address

India's healthcare system landscape is dotted with facilities that often lack even the most basic health infrastructure. The Rural Health Statistics 2021-2022 paint a grim picture: a shortfall of 83.2% surgeons, 74.2% obstetricians and gynaecologists, 79.1% physicians, and 81.6% paediatricians. Moreover, 45.1% of the Primary Health Centres operate 24x7, and out of 5,480 Community Health Centres, only 541 have specialists. The limited hours and specialist availability means, many go without essential healthcare services. There is a requirement of a robust health data that hastens the effective health care delivery and outcomes with minimum error.


## Technology-enabled solution provided

The platform developed by JBF, has dashboards allowing the concerned partner to monitor MMU's location, visualise key data points through easy-to-understand charts, enabling them to monitor:

- **Patient Trends**: Number of patients registered, their gender distribution, and patient inflow from villages
- **Operational Efficiency**: Track vehicle movement and resource utilisation to ensure MMUs are functioning smoothly, and resources are flowing efficiently.
- **Medicine Inventory Management**: Maintain medicine stock levels, facilitate informed decisions of ordering new supplies, ensure medicine availability.
- **Diagnosis Patterns**: Analyse trend of health concern for targeted intervention and resource allocation.

The development and implementation of JubiCare involved collaboration with the tech partner, Indev Consultancy which specialises in healthcare solutions.

## Challenges in implementing technology-enabled solutions

There were critical gaps in data management and service delivery. Data monitoring was becoming a major challenge with the bulk of entries done manually in register/excel sheets. During COVID-19 pandemic, when there were challenges in promoting the application, this was overcome by pasting, distributing pamphlets with QR code in shops, and encouraging shop owners to give the pamphlet along with groceries. Initially the community were resistant towards providing information to JBF counsellor, as it was time intensive. The community realised benefits during the follow-up visits. The team conducted sessions with community leaders, launched Information, Education and Communication (IEC) campaigns for awareness amongst youth groups and village WhatsApp groups.

## Impact of the technology-enabled solutions

- Registered to over one million people and digitised comprehensive health data. The MMUs have conducted 10,000+ visits to provide essential healthcare services in underserved areas.
- Improved healthcare access in underserved areas, leading to 25% increase in early detection, treatment of chronic diseases, 40% accuracy in medical records, reduced waiting time by 30%, and 20% reduction in common rural health issues.
- Empowering healthcare workers through trainings and technology has led to a 35% increase in healthcare worker productivity.

The system is now being utilised by other partners at an extremely low cost which hitherto was not possible for small budget NGOs or similar agencies. The intervention aligns with the SDGs 3, 9, 17 as well as with Schedule VII areas.

L&T Finance Limited


# Digital Sakhi project

*We are proud to witness that our flagship CSR initiative, the 'Digital Sakhi' project, is contributing to the nation's overall digital and financial inclusion agenda. It is playing a vital role in driving progress and bridging the gap in access to opportunities for all. Our community-driven approach has achieved remarkable results like empowering over 45 lakh members, out of which 80% are women, and generating a social value of INR 123/- for every INR 1 invested. By linking over 2 lakh community members to social entitlement schemes worth over INR 60 Crore, we are helping create a ripple effect of positive change. Over 1,770 Digital Sakhis have been instrumental in this journey. They are swiftly expanding their reach across the country and are training lakhs of women to empower communities and create a brighter future.*

**Sudipta Roy**
Managing Director & CEO
L&T Finance Ltd.

## Summary

L&T Finance's Digital Sakhi project is a groundbreaking initiative designed to enhance financial inclusion in rural India by empowering women through digital and financial literacy. The project focuses on training rural women as Digital Sakhis, equipping them with the knowledge and tools necessary to educate their communities about digital financial services, reducing the need for long travels to banking facilities and enhancing their ability to manage finances and utilise government schemes. By using technology such as smartphones, mobile apps, and online platforms, the project ensures that these women can efficiently manage financial transactions, access government schemes, and participate in the digital economy. Despite challenges such as limited digital infrastructure and initial resistance to technology adoption, the project has significantly impacted thousands of women, fostering economic independence and community development.

## Problem the intervention seeks to address

A vast portion of the rural population lacks access to digital education, creating a substantial barrier to participating in the growing digital economy. Women are disproportionately affected by this gap due to socio-cultural norms that limit their mobility and access to education. As a result, they are often excluded from formal financial systems, lacking the awareness, documentation, and trust necessary to engage with digital financial services. This exclusion not only hampers their ability to manage finances but also limits their economic independence, leaving them reliant on others for financial transactions.

## Technology-enabled solution provided

The project utilises various technology-enabled solutions to empower women in rural India. It offers digital literacy training through user-friendly mobile apps and e-learning platforms, ensuring accessibility even for those with limited tech experience. Participants are trained in digital financial tools such as mobile wallets, UPI, and mobile banking apps. The project employs mobile apps for real-time data collection and monitoring, allowing managers to track progress and assess impact. Additionally, L&T Finance's in-house CSR monitoring solution provides real-time updates, enabling effective oversight and continuous improvement of the initiative.

## Challenges in implementing technology-enabled solutions

- **Digital Infrastructure**: Lack of digital infrastructure in rural areas, where limited internet connectivity and unreliable electricity disrupted digital training and platform use.
- **Resistance to Technology Adoption**: Many participants were initially hesitant to adopt digital tools, primarily due to a lack of familiarity and fear of technology. This resistance was particularly strong among older women who had little to no prior experience with digital devices.
- **Language and Literacy Barriers**: The diversity of languages in rural India made digital training challenging, as many participants preferred vernacular languages and had limited literacy, complicating their use of platforms primarily in English or Hindi.
- **Sustainability of Training and Technology Use**: Women's awareness of using digital tools post-training was challenging, as many preferred traditional methods due to insufficient support and motivation.

## Impact of the technology-enabled solutions

- **Increased Financial Inclusion**: The project has significantly increased financial inclusion amongst rural women, with thousands now using digital financial services for the first time.
- **Empowerment and Economic Independence**: The project equips women with digital financial skills, fostering independence and boosting economic well-being and business opportunities.
- **Improved Access to Social Entitlement Schemes:** Easier access to online social entitlement schemes, with Digital Sakhis guiding beneficiaries through the application process, thus supporting the government's initiative to digitise public services and increasing rural participation.
- **Scalability and Reach**: Cloud-based solutions have enabled the project to scale across regions, ensuring consistent and effective training for more women, replicating and improving the program elsewhere.
- **Improved Economic Opportunities**: Training on online marketplaces and social media has empowered women entrepreneurs to start businesses and reach customers beyond their communities, boosting both their income and local economic development.

NAYARA ENERGY

**Nayara Energy Limited**

## Sustainable Livelihood Programme

*Nayara's livelihood interventions deploying a diverse range of advanced solutions in drought-prone coastal areas, have led to encouraging results for over 2000 farming families in 30 villages. By leveraging technology-enabled and knowledge-driven solutions, farmers not only ensure resource optimisation, but also enhance agricultural productivity in 2000 ha land bolstering rural economy and sustainable food security.*

**Deepak Arora**
President – Public Affairs
Nayara Energy Ltd.


### Summary

As Vadinar refinery is located in the saline, coastal belt of Gujarat, developing farmlands and optimising income from the land presents a significant challenge for the farming community. In Public-Private Partnership (PPP) with the Government of Gujarat, Nayara is working to make 11,000 hectares in the region water-neutral. The organisation has introduced technology-based interventions, such as automatic weather stations and Bhu Parikshak for soil testing.

For the first time, the organisation conducted an in-depth hydrological study for aquifer mapping. Based on the analysis, it has developed tailor-made sustainable solutions for farmers, which include weather advisories and utilised plots to showcase the best practices in agriculture. The Project, Gram Samruddhi also incorporates climate-smart agricultural practices, regenerative methods like zero tillage, biodiversity, and integrated water resources management and has engaged over 10,000 beneficiaries in communities across 30 villages in the Jamnagar and Devbhumi Dwarka districts.

### Problem the intervention seeks to address

The coastal Saurashtra region is marked by highly erratic rainfall, aridity, and seasonal rivers of shorter length and shallow depth. These villages around the coast have a very fragile resource base affecting the economy, agriculture, and other livelihoods. The average rainfall is 487 mm. Overdependence on the monsoon and rain-fed agriculture along with poor soil health has had a detrimental ripple effect on the various issues faced by rural communities. To overcome this, the organisation started an organic production system, regenerative certification, high-tech demonstration plots, e-farm knowledge centers and IoT-Based Advisories and water usage reduction systems.

## Technology-enabled solution provided

Under the project, the organisation has established Automatic Weather Stations (AWS) to monitor and predict climatic conditions, helping farmers make informed decisions. Additionally, plastic mulching has been introduced to conserve soil moisture and reduce weed growth. The implementation of bio-digesters aids in converting organic waste into bio-fertilisers. To enhance soil fertility, the organisation promotes the use of Jeevamrut, a natural compost. Regular soil testing ensures optimal crop nutrition, while solar traps are used to control pests in an eco-friendly manner. Furthermore, the Arya Shakti application has been rolled out to empower farmers with real-time agricultural insights and guidance.

## Challenges in implementing technology-enabled solutions

- Limited knowledge of technology often keeps farmers unaware of modern agricultural innovations. This dependency on traditional methods and outdated practices has led to reducing crop quality and yields, less effective practices and missed opportunities for improved productivity and sustainability.
- Financial uncertainty and high costs deter farmers from investing in modern agricultural solutions. Fear of financial loss and limited resources hinder their adoption of advanced technologies, thus restricting opportunities.

## Impact of the technology-enabled solutions

With more than 5,000 beneficiaries getting linked to multiple technology-based interventions, Project Gram Samruddhi has served as the hotbed of technological innovations for over a decade. Of the total farmers linked to agricultural innovation practices, more than 5,294 are availing benefits of weather advisory through the weather stations. Over 921 farmers have soil tests conducted to improve soil nutrients. Overall, the transformative platforms empowered farmers with tools and knowledge, enhanced farming practices, improved crop yields, and increased profitability over the years.

TATA BLUESCOPE STEEL

**TATA BlueScope Steel Private Limited**

# Digitalisation of CSR and Volunteering Processes

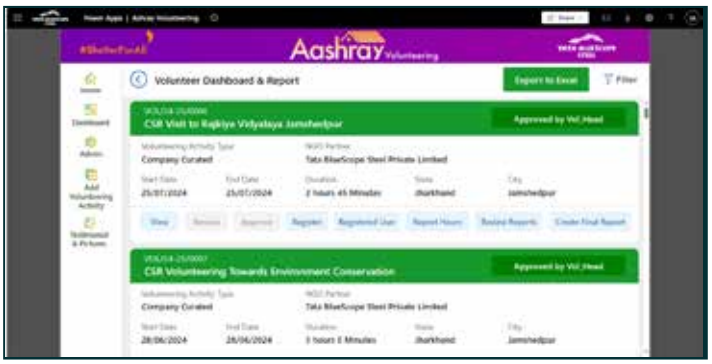

## Summary

Tata BlueScope Steel Private Limited has developed a CSR and volunteering application designed to digitise the entire project management process, from planning, execution to reporting. The manual process which was in place earlier faced challenges such as missing documents, data inconsistencies, and being time consuming, leading to delays. The application leverages technology to address these issues, offering a more efficient, transparent, and accessible system. The organisation has taken efforts in developing this solution, including creating detailed roadmaps, designing flow charts, engaging in one-on-one meetings with developers, and testing each feature. As a result, a consolidated platform for employees was developed to manage and oversee CSR initiatives more effectively by different functions within the organisation.




## Problem the intervention seeks to address

The process for creating projects, including due diligence, and obtaining approvals from the CSR Steering Committee were handled manually. The process was time-consuming and restricted access to project documents, complicated their visibility and tracking. The updates regarding volunteering were communicated through emails, making it difficult to get current information, and locating relevant activities. Moreover, the manual registration did not capture participant data efficiently. Previously, the project progress report was either not shared, or if shared it was prone to getting missed, thus making it difficult for the CSR Committee to review projects timely. Financial data, initially managed by the CSR head and manager, was not accessible to the CSR Steering Committee or finance team. The data extraction and reporting were done manually, making it time intensive. These manual processes of obtaining approvals, managing CSR and volunteering communication were leading to significant risks of information loss and inefficient outreach. Additionally, the registration and recording of volunteering events were also performed manually, resulting in potential inaccuracies, and missed opportunities for engagement.



*Tata BlueScope Steel Private Limited is committed towards technological innovation for process improvement. Digitalising the CSR project approval monitoring process is indeed a significant step towards making our efforts more impactful and effective. By using technology to monitor CSR activities, we have achieved several benefits like transparency, accountability, enhanced communication and scalability. Moving forward, we plan to expand this technology to further enhance long term connect with beneficiaries.*

**Anoop Kumar Trivedi**
MD, Tata BlueScope Steel Private Ltd.


## Technology-enabled solution provided

'Ashray', meaning shelter is the CSR and volunteering application, its features include a comprehensive solution towards managing CSR projects from inception to completion. There are tools for organising, registering, documenting, reporting, and concluding volunteering activities. It also includes a centralised gallery for showcasing CSR projects and volunteering initiatives and has features for capturing testimonials from volunteers for future reference and recognition. This can be accessed on both the desktop and mobile devices.

The application has digitised and streamlined the entire workflow and includes features for project management, event registration, documentation, reporting, and real-time notifications, real-time volunteering updates/ activities and submission of post-activity reports. It includes an employee registration feature to accurately capture participant data and streamline the process. The application has features to upload project progress reports, accessible to the CSR Steering Committee at any time. There is comprehensive management and recording of financial data for each financial year, with visibility extended to all concerned members, improving transparency and accessibility of financial information. The application provides an efficient feature to export all CSR-related data to excel sheets automatically. This saves time, facilitates easy data manipulation and reporting, with automated generation of excel sheets for all the uploaded volunteering data.

## Challenges in implementing technology-enabled solutions

The process of developing the application involved challenges such as:

- Identifying and listing all the requirements in detail, preparing flow charts for designing the outline of the application. Only few personnel were provided access and control for maintaining efficiency, transparency and verification of the application's usability. Continuous testing and improvement based on user feedback was done to ensure user requirements.
- Post-implementation, there were challenges faced by the employees regarding transition from manual to a digital system as they were accustomed to receiving and sharing information via email.

## Impact of technology-enabled solutions

- **Resolved challenges**: The application has successfully addressed challenges of the previous system, offering a more robust and streamlined approach to managing CSR and volunteering projects.
- **Consolidated system**: Employees, the CSR core team, and senior management now benefit from a unified system that consolidates project information and management tools into one platform.
- **Enhanced efficiency**: The digital system improves overall efficiency by automating repetitive tasks and reducing manual errors.
- **Improved transparency**: Real-time updates and accessible data contribute to greater transparency and accountability in CSR activities.

Digital Bharat Collaborative
ACCESS • EMPOWER • TRANSFORM

Piramal Foundation

## Piramal Foundation

# Phygital Primary Health Centre

*Access to affordable and specialised healthcare has always been a challenge for the underserved communities in our country. To ensure we reach the remotest of locations, Bayer Foundation India collaboration with Piramal Swasthya to set up this Telemedicine Project. The initiative enables such communities with access to primary and specialist healthcare consultations. Adopting a hub-and-spoke model, we have reached over 100,000 individuals through 13 telemedicine nodes at the government health centers within a few of the aspirational districts of Bihar, Jharkhand, Chhattisgarh, and Uttar Pradesh. This project not only underscores our commitment to enhancing public health but also sets new standards to strengthen preventive healthcare.*

**Sanjeet Roychoudhury**
Vice President
Piramal Foundation

## Summary

Piramal Foundation aims to digitise health records using suitable technology to ensure specialised healthcare services to reach the unserved and underserved population. As there is a lack of adequate healthcare facilities in many Primary Health Centres (PHCs) and Community Health Centres (CHCs), the foundation wants to ensure equitable and accessible healthcare for all community members through this initiative.

## Problem the intervention seeks to address

To provide equitable access to quality primary healthcare, the organisation has utilised their in-house software application. The platforms are, Accessible Medical Records via Integrated Technologies (AMRIT) and electronic medical record platform integrated with Swymed application to provide Telemedicine (TM) solutions for improved health care services and maintaining health records. It accommodates tele-consultation sessions for both walk-in as well as scheduled patients. Based on the availability of remote specialists and general physicians, the solution allows booking of appointments in advance. SwyMed's patented software overcomes traditional connectivity issues to enable medical professionals to treat and monitor patients from anywhere through real-time video.

## Technology-enabled solutions provided

**AMRIT:** The Telemedicine IT solution is a part of AMRIT a health technology platform built by the organisation, which acts as the first step in achieving transformed health care. Deploying this online platform helps to provide a continuum of care for better health service delivery and digital adoption amongst healthcare service providers and strengthens primary healthcare services. The near real-time dashboards allow stakeholders and service providers to monitor the services on an “any time/anywhere” basis. Data models in the software creates quick analytics allowing the partner to measure outcomes of the services easily.

## Challenges in implementing technology-enabled solutions

During deployment of the solution, there were several challenges, including infrastructure development, digital literacy training programmes tailored to rural communities, language localisation of telemedicine platforms, community engagement and awareness campaigns, as well as support for healthcare providers in adopting digital technologies to expand telemedicine in underserved areas.

- **Digital Literacy**: The challenges with AMRIT Telemedicine application are daunting for users who are not tech-savvy. This resulted in disruption of Telemedicine Services amongst the Telemedicine Technologists. The perception of technology and its benefits can vary amongst the beneficiaries. There is scepticism/resistance to adopting new digital health solutions due to lack of trust or understanding of how this application can improve their health outcomes. In addition, there are concerns about privacy and data security and fear of personal health information being misused.
- **Limited availability of technical infrastructure in the TM Centre:** Poor network coverage in rural or remote areas limits the reach and effectiveness of TM affecting the ability to provide timely healthcare services.

## Impact of the technology-enabled solutions

The technological intervention has greatly improved the accessibility and availability of specialist services. This solution has enabled local population to receive specialised care without the requirement of travelling to district hospitals, thereby saving time and travel expenses. Overall, telemedicine nodes have enhanced healthcare delivery by making specialised care more accessible and alleviating resource strain on larger hospitals. The project underscores telemedicine's potential to democratise healthcare, particularly in underserved regions, by bridging gaps through technology-enabled solutions and offering cost-effective, timely medical interventions.

For ensuring sustainability of the programme, additional training on TM software was provided at each node, the transition plan was discussed with state government health officials for all 13 nodes and further resources at the CHC/PHC were identified to manage the telemedicine project after exit. This intervention aligns with the Sustainable Development Goal 3.

Rajanna Foundation

# Digital Education Program

*Not only limiting to academics. In our mission to shape the future of the students and to keep them abreast with latest trends and technologies and to face the competitive world, students are exposed to digital technology and classrooms, usage of tabs and access to digital content.*

**Ramachandra Naidu Galla**
Chairman – Rajanna Foundation

## Summary

The project aims to promote the use of Information Technology (IT) in schools by ensuring access to devices, internet connectivity, and technology literacy for students. The initiative focuses on achieving digital literacy for every student, making learning more engaging, interesting, and effective. By integrating IT tools, the project seeks to increase student engagement, develop critical thinking and analytical skills, and encourage self-learning. Additionally, it will provide teachers with training on the latest teaching methodologies and IT tools, fostering a peer learning environment in the classroom. 16,000 videos, animations, and simulation multimedia resources were developed by the partner, as well as 6,000+ lessons covering various subjects, experiments/activities.

## Problem the intervention seeks to address

Many students in underprivileged or remote areas lack access to quality education and modern resources. Traditional teaching methods often have challenges to engage them, resulting in poor learning outcomes and high dropout rates. Teachers lack access to teaching methods and they often lack access to professional development and resources to improve their teaching methods and engage students effectively. Parents, especially in low-income and rural areas, may have limited opportunities to be actively involved in their children's education due to lack of resources and time. Also, there is limited access to health education and awareness programmes, particularly in rural or marginalised communities.

## Technology-enabled solution provided

As a part of its CSR initiatives, Rajanna Foundation set up 60 smart classrooms with TeachNext in three schools in Tirupati and Chittoor districts, Andhra Pradesh. These classrooms, equipped with smart projectors, PCs, whiteboards, and green boards, aim to create a better learning environment, and increase enrolment, attendance, and student interest. The programme, targeting LKG to 12th-grade students, enhances learning with graphical and animated digital content, fostering skills and interest in science and mathematics.

The project includes both hardware and software components to enhance classroom learning. The hardware setup features a remote control, projector, PC, and a touch-based interactive surface. All branded hardware comes with a five year warranty and service support. On the software side, proprietary software is installed on a school server at a Central Coordination Center (CCC). Through a LAN connection, classrooms equipped with TeachNext devices, Interactive Whiteboards (IWB), and projectors can access this system. Additionally, TeachNext content is delivered to students' tablets via a Learning Management System (LMS) module, specifically designed for grades eight to ten.

## Challenges in implementing technology-enabled solutions

- **Lack of Trust in the Technology:** Teachers, students, and parents were sceptical about the effectiveness and reliability of IFPs, fearing they may not provide tangible benefits over traditional methods.
- **Infrastructure and Ecosystem Requirements:** Digital classrooms require robust infrastructure, including reliable electricity, internet connectivity, and adequate classroom space, which may be lacking in some areas.
- **Cost Constraints:** The initial investment for the setup is high, posing a significant barrier for schools with fixed budgets.
- **Training and Support for Teachers:** Teachers may lack the necessary skills and confidence to use devices effectively, leading to underutilisation of the technology.
- **Maintenance and Technical Support:** Ensuring ongoing maintenance and technical support for smart classrooms is challenging, particularly in remote areas.

## Impact of the technology-enabled solutions

- **Improved Student Engagement:** Increase in student participation rates, 90% increase in classroom participation and interactive activities and test scores improved by 70%.
- **Enhanced Teaching Quality:** Teachers reported a 75% reduction in preparation time due to available digital resources. 80% of teachers reported feeling more confident and effective in delivering lessons.
- **Parental Involvement:** 40% increase in parent-teacher meeting attendance.
- **Educational Equity:** Reduction in educational disparities. Schools in rural and underprivileged areas saw a 25% increase in literacy rates and a 30% increase in school attendance.

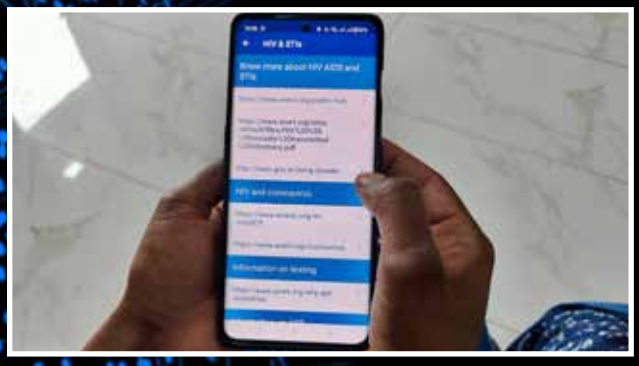
The project contributed to SDG 4 “Quality Education”.

**Reckitt Benckiser India Private Limited**


# Harnessing Tech for Sexual Health: ProteQt

*The COVID-19 pandemic underscored the critical role of technology in improving public health and well-being. Technology has enabled us to overcome barriers and stigma, fostering informed and healthier communities. With the ProteQt app, we at Reckitt, aim to exemplify the use of AI and data-driven insights to drive behavioural change for sustainable societal impact.*

**Gaurav Jain**
Executive Vice President, South Asia,
Reckitt Benckiser



## Summary

The Birds and The Bees Talk (TBBT) Programme, a joint initiative led by Reckitt and implemented by Plan India, aims to educate adolescents on life skills, recognising the critical need for age-appropriate information to promote healthy behaviours and equip them with essential life skills and values across ten states in India.

Given that India is home to the world's largest youth population of 1.5 billion[1] there is a huge collective responsibility on civil society to ensure that the youth are sensitised to indulge in safe practices while growing up. Factoring this, TBBT Programme developed a sexual health risk behaviour assessment application named ProteQT which also entails information on HIV counselling, testing and treatment centres. This app is designed to provide critical information, recommendations and legit resources pertaining to prevention, partner protection, testing, and treatment of STIs, including HIV and Pre-Exposure Prophylaxis (PrEP) usage. This app enables the users to overcome societal barriers and stigma and empowers the community of youth to assess their own sexual health status from the comfort of home.

## Problem the intervention seeks to address

The ProteQt app has been designed with the intent to help community users assess the risk to their sexual health through a short behavioural assessment questionnaire that provides a risk status. This helps the user understand their current level of risk (low, medium or high). It exemplifies leveraging technology to maximise the programme's impact, particularly promoting inclusivity and addressing health and well-being of the community at large including LGBTQIA+.

1. "World Youth Skills Day 2024 - Preparing India's Youth for next-Gen Skills - ET Education." ETEducation.Com

## Technology-enabled solution provided

ProteQt leverages advanced technology to provide a comprehensive support system to cater to the needs of youth and access services in their locality. Since needs of the community are unique, the app helps the user find resources run by community members, such as Community Based Organisations (CBOs), as well as resources supported by the National AIDS Control Organisation (NACO) - Drop In Centers (DICs), Integrated Counselling and Testing Centres (ICTCs) as well as Anti-Retroviral Treatment Centres (ARTCs).


- The app enhances awareness of behavioural risks for contracting STIs, including HIV, by providing risk assessments based on partners, protection practices, and history. A questionnaire with ten questions covering partners, protection, practices, and history helps users assess their risk levels. Based on the responses, users are assigned risk categories and recommendations for interventions.
- The app provides detailed information on centres, including location and contact details. Government helplines have been listed for easy access and information on prevention, testing and treatment for users. There is a strong analytics backbone to provide insights from aggregated and anonymised data, enhancing the programme's ability to monitor and adapt to user needs.

## Challenges in implementing technology-enabled solutions

- **Trust and Acceptance**: Initially, there was scepticism and lack of trust amongst potential users. To overcome this, extensive community outreach and education was conducted to demonstrate the app's benefits and ease of use.
- **Infrastructure:** Ensuring that the necessary technological infrastructure was in place was a challenge. Collaborations with local organisations and support centres helped establish a robust support network.
- **Privacy Concerns**: Privacy and security of user data were paramount. To ensure confidentiality of the user's data, the app was designed to not collect any Personally Identifiable Information (PII), and all data is stored on the user's device. A privacy impact assessment was conducted to ensure compliance with privacy requirements.

## Impact of the technology-enabled solutions

- **Increased Awareness:** The risk assessment tool has helped users understand their behavioural risks and take appropriate actions to mitigate them through the recommendations.
- **Enhanced Access to Support:** Easy access of necessary resources on the app has led to increased utilisation of support services and improved health outcomes.
- **Empowerment through Information**: Users have access to up-to-date information on HIV, STIs, testing, and PrEP, empowering them to make informed decisions about their sexual health.

RENAULT NISSAN TECHNOLOGY & BUSINESS CENTRE INDIA

# Renault Nissan Technology and Business Centre India

## Road Safety Project

*This project represents a significant step towards improving road safety in Chennai. Through innovative data collection and targeted interventions, we aim to reduce accidents involving public transit buses and enhance the overall safety of our roads.*

**Debashis Neogi**
MD, Renault Nissan Technology & Business Centre India

## Summary

The project aims to reduce accidents involving public transit buses in Chennai by implementing comprehensive strategies focused on prevention, enforcement, education, and infrastructure improvements. Data collected from various sources, including drivers' surveys and in-vehicle sensors, was analysed to identify key factors contributing to accidents. The project proposed targeted interventions to enhance driver training, enforce traffic laws, improve vehicle maintenance, and upgrade infrastructure. The findings and recommendations were disseminated to stakeholders through reports and workshops, aiming to make Chennai's roads safer for all users.

## Problem the intervention seeks to address

Chennai has faced significant challenges with respect to road safety, particularly involving public transit buses operated by the Metropolitan Transport Corporation (MTC). Despite a reduction in overall accidents, fatalities and injuries remain high. Buses, due to their size and capacity, are often involved in severe accidents, resulting in numerous casualties. The project addresses need for effective interventions to curb bus-related accidents and improve overall road safety in Chennai.

## Technology-enabled solution provided

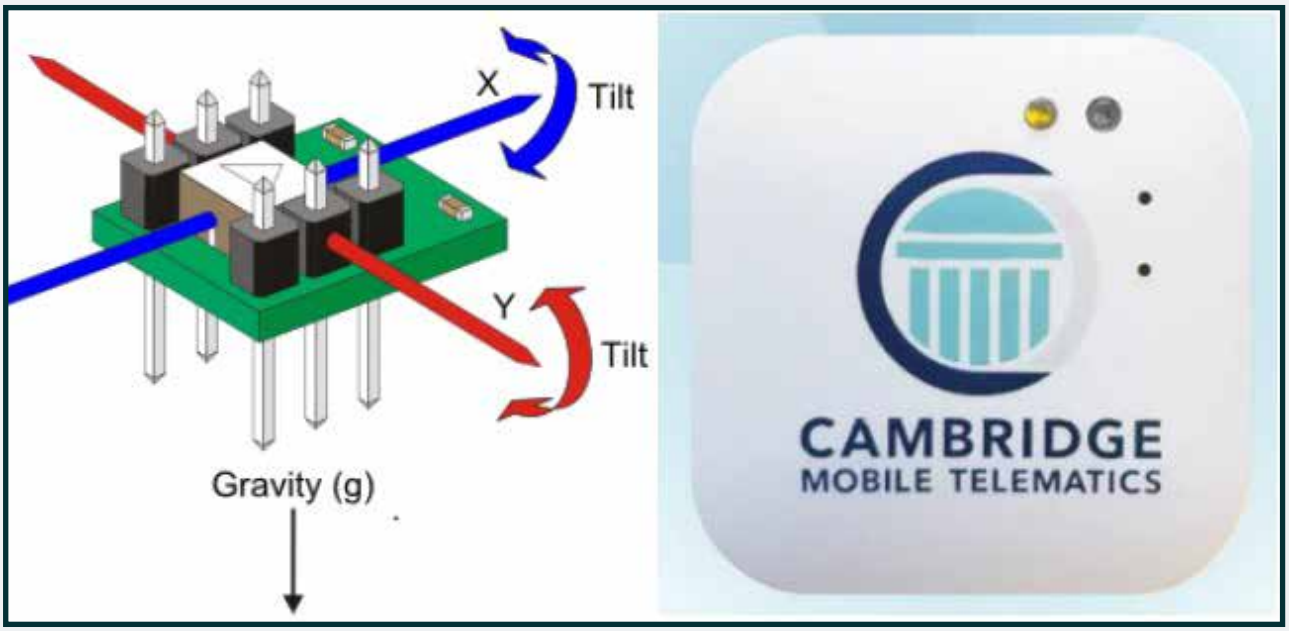
The project utilises advanced data collection techniques, including in-vehicle sensors, simulators, and driver surveys, to gather comprehensive data on driver behaviour and causes of accidents. Technologies like Advanced Driver Assistance Systems (ADAS), Inertial Measurement Units (IMUs), Electrocardiograms (ECGs), and Galvanic Skin Response (GSR) sensors are employed to monitor driver performance and physiological conditions. This multi-dimensional data is analysed to identify patterns and propose targeted interventions, such as enhanced driver training programmes and stricter enforcement of traffic laws.

## Challenges in implementing technology-enabled solutions

- **Data collection**: Gathering comprehensive data from 600 MTC drivers, including physiological and psychological assessments, is a complex and time-consuming task.
- **Equipment identification and purchase**: Identifying and procuring suitable equipment that minimised obstruction to drivers while providing accurate data is challenging.
- **Analysis and modelling**: Cleaning and curating large datasets, followed by detailed analysis and modelling to draw meaningful conclusions, requires significant effort.
- **Intervention implementation**: Implementing proposed interventions and monitoring their impact poses logistical and operational challenges.

## Impact of the technology-enabled solutions

The project's interventions aimed at reducing bus-related accidents in Chennai shows promising results. Enhanced driver training, stricter enforcement of traffic laws, and improved vehicle maintenance protocols contributed to better driver behaviour and reduced accident rates. The dissemination of findings through workshops and reports facilitated collaboration between government agencies, transport authorities, and the community, fostering a safer road environment in Chennai.



ReNew

**ReNew**

# Young Climate Leadership Curriculum

*As we harness technology to address the world's most pressing challenges, it is clear that innovation has the power to create lasting social impact. From clean energy solutions to digital tools for education and healthcare, technology enables us to scale our efforts and drive transformative change. At ReNew, we believe in leveraging cutting-edge advancements to empower communities, improve lives, and contribute to a sustainable future for all.*

**Vaishali Nigam Sinha**
Co-Founder and Chairperson Sustainability
ReNew


## Summary

ReNew has developed a holistic Young Climate Leadership Curriculum modelled around the core principles of the LiFE movement. This unique course aims to create a new generation of climate advocacy champions and leaders, equips school students to be aware, empowered and inspired to lead a lifestyle for the environment by making them critical consumers. The course is for students from six to eight grade, both in the government and private schools across the nation.

## Problem the intervention seeks to address

Nearly 40% of adults globally have never heard about climate change. It is estimated that ~19 GT of CO2 emissions can be avoided if 16% of high-school kids get climate education. While nearly 24 million children per year are impacted by climate disasters in India, 275 million children can be saved from climate risks by investment in climate change education. Though there is a global movement to mainstream climate and sustainability education, India will be a forerunner, globally, if it is able to scale comprehensive climate education through the school education system. As world leaders gear to address the "greatest threat of the 21st century", India needs to move from environmental education to climate education and skills for a green future. Given the magnitude of the problem and scale that must be achieved, ReNew's Leadership Curriculum is one such initiative will help to deliver climate education to school students pan India.

## Technology-enabled solution provided

In partnership with ReNew Foundation, the organisation is making efforts to deliver the course via classroom teaching through teacher training and textbooks over 24 weeks. Initially piloted across 25 schools, the need for integrating technology was felt to scale the initiative through Learning Management System (LMS) to deliver the course online, which can be accessed in multiple languages like English, Hindi, Gujarati, Kannada, and Odiya.

This has been divided into five modules, introduction to sustainability, energy & climate change, causes of climate change, safeguards against climate change and becoming a climate leader. Using audio-visual storytelling methods and real-life examples, the LMS has enabled the curriculum to be delivered in a self-paced mode over ten hours, reducing the delivery time by 58%, which has significantly helped schools in scaling the outreach to a greater number of students.

## Challenges in implementing technology-enabled solutions

The implementation of the project faced significant hurdles, particularly in regions where digital infrastructure is limited or non-existent. Many schools, especially in rural and remote areas, lack basic internet connectivity. Even where internet access is available, there are issues of inconsistent power supply and insufficient hardware, such as tablets or computers, which can hinder the delivery of digital content.

- **Addressing Digital Infrastructure Gaps**: Lack of internet connectivity in rural and remote schools hampers easy access to study material thus exacerbating the digital literacy gap and urban-rural divide.
- **Localisation and Content Customisation**: To address the diversity of languages and cultural contexts, the content was translated into multiple languages to ensure that the material resonated with students from different parts of the country.
- **Maintaining Student Engagement**: To keep students motivated in a self-paced learning environment, the platform features audio-visual storytelling methods, real-life examples, quizzes, and gamified elements. Regular check-ins and student performance progress tracking were also implemented to help students stay on track and provide teachers.

## Impact of the technology-enabled solutions

The curriculum is being implemented across 75 schools in three states namely, Rajasthan, Gujarat, and Karnataka in offline mode. In addition to this, 9000 candidates are accessing the curriculum through our online LMS. In partnership with Idream Education – an Edtech platform, the curriculum has been made available to 5000+ government schools in Uttar Pradesh. Recognising the digital literacy gap, the organisation invested in extensive training programmes, user-friendly interfaces and step-by-step guides to make the platform more accessible, even to those with limited prior experience with digital tools.

Schneider Electric Foundation India

## Schneider Electric

# Solar Productive Energy Systems for Rural Livelihood

*Schneider Electric believes in the crucial role of India's rural development in achieving the goal of Viksit Bharat by 2047. While significant strides have been made in placing rural India at the forefront of the country's developmental journey, accelerated access to essential services like healthcare, education, food security, livelihood opportunities, safety, and clean water is vital to creating a real impact. The development in many rural villages of Bihar, Jharkhand and Odisha as part of Rural Electrification Program is a testament to Schneider Electric's dedication to empowering rural communities through renewable energy, advancing a fair and inclusive energy transition, and enabling sustainable access to energy for all.*

**Deepak Sharma**
Zone President- Greater India
MD & CEO, Schneider Electric

## Summary

The project provides irrigation infrastructural support to poor rural farmers to enhance their livelihood, by installing irrigation water pumps powered by solar in 22 economically backward and aspirational districts of Bihar, Jharkhand and Odisha. The installation of solar power irrigation pumps, rice huller and other agricultural equipment will support women farmers to enhance their annual income by taking two or three crops in a year. Further, surplus power will be used to power other productive usages such as agri-enterprises, food processing and other micro-enterprises based on available natural resources in the villages. Through this project, decarbonisation of agriculture will also take place in these villages.

## Problem the intervention seeks to address

The central and eastern Indian region consisting of seven states including Bihar, Jharkhand and Odisha provides a challenging yet favourable platform for bringing the necessary changes to make rural lives better. Over two-thirds of the rural poor in India live across these states. The undulated topography of this area combined with the moderate climate, makes this place highly suitable to grow various crops, but frequent occurrence of drought, erratic rainfall, and inadequate irrigation is creating a hindrance in achieving the full potential in the farm sector, thereby limiting the scope of farm-based livelihood.

A major challenge in improving farm-based livelihoods is the lack of irrigation facilities, leading to low agricultural productivity and food insecurity in rural areas. Small and marginal farmers, especially in low-income states, struggle due to poor market access and lack of produce aggregation, resulting in inadequate prices for their products. Consequently, rural communities remain vulnerable and focused on subsistence.


## Technology-enabled solution provided

The project leverages solar photovoltaic technology to provide sustainable energy for various economic activities, including irrigation, which plays a key role in the socio-economic development of rural communities. By installing over 800 solar-based irrigation systems in 22 districts, the project decarbonised traditional fuel-based pumps, replenished groundwater, and benefited more than 13,000 small/marginal women farmers. Women-led institutions, such as Solar User Groups (SUGs), were established to ensure social sustainability, foster leadership, and train youth in solar infrastructure maintenance. The initiative also promoted agricultural collectives and commercial farming, reducing migration through entrepreneurship models and launching the "Climate Smart Village" initiative to further enhance livelihoods by solarising agro-processing units and supporting additional income-generating activities.

## Challenges in implementing technology-enabled solutions

- **Land identification and ensuring land donation**: It was a big challenge to identify land by the partners and to organise a community drive by SUGs to get land in form of a donation from community members.
- **Creation and capacity building of SUGs**: The formation and capacity building of SUGs were other challenges which were pivotal for the overall sustainability of the project.
- **Installation of solar infrastructure**: It was difficult due to high upfront costs and lack of technical expertise for maintenance.
- **Monitoring mechanism streamlined:** To ensure optimal performance and efficiency, a stringent monitoring mechanism was put in place to monitor the overall progress of the project. It helped to track early detection of faults and timely maintenance.

## Impact of the technology-enabled solutions

The project revolves around community engagement, empowering over 8,000 women as leaders through the formation of 600 SUGs. These women now play crucial roles in agriculture, with 97% participating in crop planning and decision-making. Economically, the project has improved crop intensity by 200% for over 13,000 farmers, reduced irrigation costs by 70%, doubled income from INR 24,000 to 45,000 and reducing migration due to increased agricultural productivity. Environmentally, it has led to the decarbonisation of fuel-based irrigation, a 90% reduction in groundwater use, and the introduction of solar-powered agricultural tools and reliable energy supply systems for households and community infrastructure. Households received reliable power, streetlights, and essential equipment, including a photocopy machine, an electric transport vehicle, and inverter and battery backup.

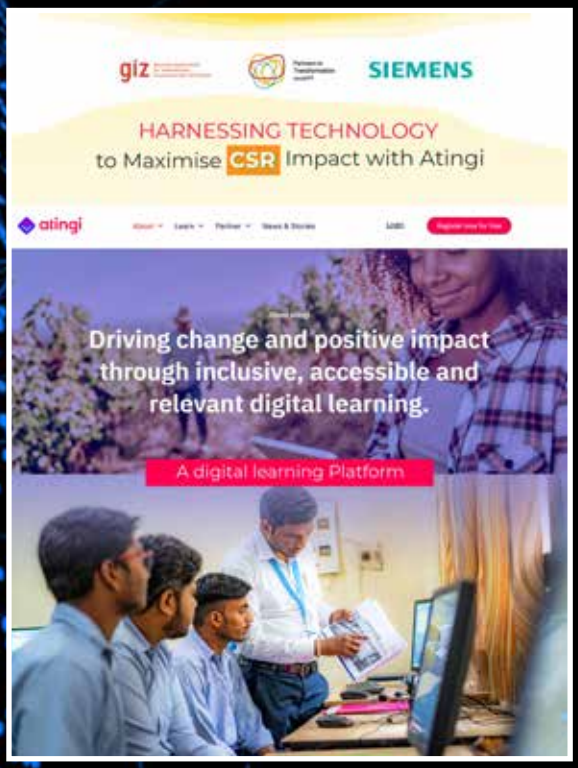
SIEMENS

**Siemens Limited**

# Indo-German Initiative for Technical Education (IGnITE)

*Digitalisation is in every sphere of human activity, including industries and enterprises. Siemens is a pioneer in leveraging technology to transform every day for everyone. We deploy it in our CSR Programmes on skilling to maximise societal reach and impact.*

**Anantharaman Subramaniyan**
Vice President &
Head, Strategy and Sustainability,
Siemens Ltd.




## Summary

The Indo-German Initiative for Technical Education (IGnITE) aims to establish high-quality training frameworks in India to improve employability of ITI trainees, inspired by the German Dual Vocational Education and Training (Dual VET) model. Siemens signed a Joint Declaration of Intent with the Ministry of Skill Development and Entrepreneurship, Government of India (MSDE), Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ), Federal Republic of Germany, under the “Skills for Sustainable Growth” umbrella to implement this project.

As a part of the develoPPP.de programme, of BMZ. Siemens and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH – an empowered implementing body of BMZ, are collaborating to implement the IGnITE project in 127 Government Industrial Training Institutes (ITI) across 11 states in India.

## Problem the intervention seeks to address

Most of the trainees of ITI come from socio-economically disadvantaged families and have not got the opportunity for a good school education. When they come to ITIs, they again face weak methods/pedagogy of vocational training. Weak pedagogy and lack of industry connect of ITIs do not help the trainees become employable.

## Technology-enabled solution provided

The project has effectively utilised the digital learning management platform (atingi.org) to enhance training delivery and reach a broad range of stakeholders and interested individuals.

The self-paced e-learning modules are available in multiple Indian languages. This digital content is made available as a public good and hosted on GIZ's open access Learning Management System (LMS) platform, atingi.org.

Key features such as self-paced training, progress tracking, and auto-generated certificates upon completion have made the platform more convenient and attractive. This digital intervention has significantly amplified impact and longevity of the IGnITE.

## Challenges in implementing technology-enabled solutions

- Lack of infrastructure and reliable internet access made it difficult to reach many potential users.
- A deeply ingrained existing teaching-learning approach led to reluctance among some individuals to adopt new approaches and technologies.
- Many participants were not comfortable using digital tools and platforms, creating another significant barrier.

## Impact of technology-enabled solutions

The project has impacted 32000+ trainees, 800+ instructors, 200+ ITI managers, facilitated in-plant training of 10000+ trainees by onboarding 250+ industries and training 650+ in-company trainers.

In addition, by leveraging digital technology, the project has maximised its reach to benefit 12000+ individuals as a direct impact of the project. The use of an open access LMS has enabled continuous learning and skill enhancement, thereby supporting the long-term goals of industry readiness and economic growth.

IGnITE has contributed towards

SRF Limited

# Digital Education Program

*Digital access, capability, connectivity, and affordability are essential for digital equality, one has to address them holistically.*

**Y. Suresh Reddy**
Lead CSR & Director
SRF Foundation

## Summary

The SRF Foundation's Digital Bus Program is a transformative initiative that uses mobile digital learning labs and volunteer programmes to provide access to digital education and training in remote areas, with a focus on enhancing digital literacy among disadvantaged children. Started in 2017, the programme now spans across seven states. Integrating technology into classrooms through digital buses, the programme aims to close the digital divide and improve learning outcomes for marginalised populations. The digital intervention programme consists of academic, digital and BCLC (Basic Computer Literacy Course) classes targeting both school students and community members. Offline academic classes are conducted using the E-Learning Extra Mark software.

## Problem the intervention seeks to address

According to the Oxfam Inequality Report 2022, growth of digital technology has been accompanied by growing concerns of inequality pertaining to access to the technology. Factors like affordability, use and reliability of broadband services hinder the role of technology in bridging inequality. There is a noticeable difference in access to computers and the internet between the advantaged and disadvantaged groups, which is reflected in the growing rural and urban divide.

## Technology-enabled solution provided

The programme focuses on using digital buses to bring digital-based education to remote areas. It operates in 11 locations and 128 villages, covering 110 schools. The mobile lab is taken to the schools where students get access to digital classrooms and IT education, during school hours. The monthly schedule of the mobile lab is shared with respective schools in the beginning of each month, to ensure coverage of all classes and subject teachers, to facilitate learning.

Offline academic classes are conducted using the E-Learning Extra Mark software. The teachers also utilise the bus during school hours to get information on the internet, and teaching support from e-content. The mobile lab operates on a rotational basis in the 10-15 schools adopted and villages in each location. On an average, frequency of the bus reaching one school/village is 1.6 days (assuming 24 as average working days) per month. After school hours, the bus reaches the community, where it conducts dedicated batches for computer literacy for two hours. The buses play a pivotal role in providing digital services to the community, helping beneficiaries to utilise its services such as net surfing and printing papers. Additionally, various community awareness activities are held every month in the evening which includes movie screenings and community meetings.

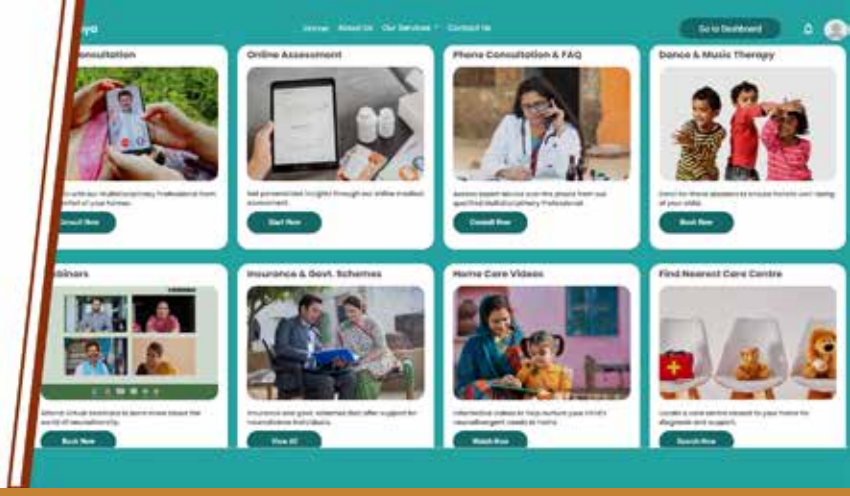
## Challenges in implementing technology-enabled solutions

- **Difficulty of Terrain**: The area where the digital buses operate often pose a challenge, which hinders the progress of the programme. The narrow alleys create difficulty in parking, making it difficult for the bus to reach the location.
- **Lack of teacher's knowledge on using digital technology**: Due to their limited knowledge, teachers are unable to effectively utilise the digital services in teaching.
- **Limited Infrastructure:** The total class strength is 50 but buses currently can accommodate only 20 students at a time. This creates a challenge in imparting lessons equitably to all students.
- **Safety and Security**: Rural residents are hesitant to use technology, believing that tasks performed by hand or through traditional methods are safer. This mindset creates a barrier to understand digital tools, making it harder for them to take advantage of the opportunities.

## Impact of technology-enabled solutions

The project currently aligns with SDG 4 which aims at ensuring inclusive and equitable quality education and promote lifelong opportunities for all. The project has increased digital access for weaker sections of the community. A total of 33,603 students and 1,244 teachers have benefitted from the digital bus programme. A total of 3,116 youth has been certified by the BCLC across 152 batches conducted in various locations. The programme has provided digital services and conducted awareness programmes for rural communities, with a total of 5,969 activities conducted, reaching 96,049 beneficiaries.

Tata Power




# Project for Brigital Inclusivity

*Tata Power has always been committed to inclusive social development and all our community outreach efforts are designed around our core mission of 'Leadership with Care'. With the launch of PAY AUTENTION a specialised bridgital program to support the ecosystem of Autistic Care in India, our effort is to unlock possibilities for these individuals, through professional care and support, lighting up their lives and ensuring we walk the path of truly leaving no one behind. The E-Sanidhya platform, co-developed by Tata Power, the Ministry of Social Justice and Empowerment, and Tata Elxsi, represents a significant step forward in providing a comprehensive resource hub to empower even the most remote communities.*

**Praveer Sinha**
MD, Tata Power


## Summary

The E-Sanidhya portal is a phygital platform created through partnership between the government and Tata Power's CSR arm (TPCDT) to support neurodiverse individuals in India. The platform currently engages with over 400 network partners and contributors, pan-India, towards this cause and offers services like home-care aids, virtual consultations, an interactive resource directory, and simplified screening tools, aimed at early diagnosis and increased outreach. It connects users with resources from NIEPID, RCI, and other support networks, providing videos, webinars, and online therapies. The portal bridges gaps in access to care and promotes awareness, fostering inclusion and support for neurodiverse individuals across the country. Inspired by human network connectivity models outlined in the Bridgital Nation co-authored by Tata Chairperson Mr. N Chandrasekharan, this model acts as force for linking many actors and institutions for collective goals.

## Problem the intervention seeks to address

Every 1 in 68 children in India are estimated to be affected by Autism. There are millions of Indian parents, caregivers of children with neurodiversity who struggle to find the resources, information and professionals they need to help their neuro-divergent children. Lack of awareness, insufficient infra for diagnostics and certification as well as unavailability of enough special educators and therapists are major challenges, especially in the remote parts of the country coupled with the support eco-system for neurodiversity care.

## Technology-enabled solution provided

The portal is a one-India platform, a one stop helpline for mental disabilities, consolidating the network of NGOs, social enterprises, volunteers, parent groups, therapists and corporates supporting inclusivity and mental disabilities. There are videos, webinars and gaming resources to host relevant resources for parents/-caregivers relating to a child's development. It includes online diagnosis and wellness-therapies for early identification of the child's condition by a professional panel online using teleconferencing and pre-recorded videos. Support through dance, music, play and art therapies is facilitated virtually/ in-person by experts. The platform tracks child's progress at each step and provide parents with relevant resources. E-Sanidhya connects users with resources from NIEPID, RCI, and other support networks, providing videos, webinars, and online therapies.

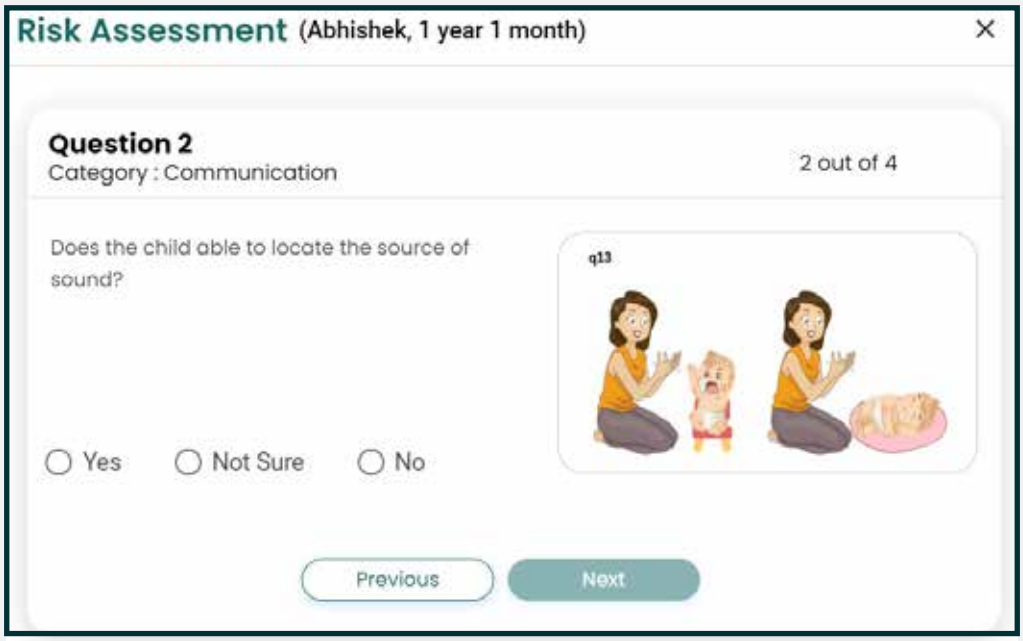
## Challenges in implementing technology-enabled solutions

- In rural areas, there is significant lack of infrastructure, awareness, and trained professionals for the effective screening of neurodiverse conditions
- Parents and caregivers often have limited understanding of neurodiverse conditions
- Selection of the cross-cutting questions to pick out the screening well
- Paving the roadmap for 5000+ users to test if the platform is user-friendly or not.
- Development modifications involved at different stages to bring out the correct screening results

## Impact of technology-enabled solutions

The platform brings together multiple stakeholders who are dedicated to supporting individuals with Autism and enabling pro-bono services for those in need. Over 280 stakeholders actively contributing to Pay Autention and the associated partners of NIEPID have been engaged. Early diagnosis and intervention are key to provide timely and effective support that improves outcomes. By enhancing accessibility and inclusivity, especially in remote or underserved areas, the platform is also playing a crucial role in raising awareness and education about neurodiversity, fostering a more informed and supportive community.

The platform is developed by Tata Power Community Development Trust in close collaboration with the National Institute for the Empowerment of Persons with Intellectual disability (NIEPID) under Ministry of Social Justice & Empowerment (MSJE) and diverse experts invited to a consultative roundtable conference and series of other state level engagements. This platform is technically executed in association with Tata Elxsi.



Technip Energies

# Solar-Powered Waste Recycling Centre

*We believe India progresses when our communities progress. Project ACE exemplifies our commitment to sustainability and community empowerment, reflecting our ESG goals. It is not just another CSR project, but a case study in cutting-edge technology for waste management and renewable energy. This program also resonates with the Swachh Bharat Mission of Government of India and goes beyond environmental stewardship by promoting women empowerment and uplifting communities. Project ACE, part of our national award-winning CSR program 'Seed of Hope', is a testament to our commitment in breaking boundaries and engineering a sustainable future.*

**Davendra Kumar**
MD
Technip Energies India

## Summary

Technip Energies (T.EN), the world's leading engineering and technology company is enabling net-zero transition, and implemented the principles of circular economy through Project ACE (Accelerating Circular Economy), launched in the year 2021, near its Modular Manufacturing Yard at Dahej, Gujarat. Under Project ACE, a solar-powered waste recycling centre was established to promote circular economy practices within the community. While designing the project the team chose to use solar energy to run the recycling centre avoiding additional carbon footprint – staying true to the principles of circularity. Solar Power technology was the solution that has enabled this project to run successfully for past three years in Dahej, Gujarat. The project was implemented in collaboration with local Non-Profit Organisations and technology providers.

## Problem the intervention seeks to address

The project addresses critical challenges through its solar-powered recycling centre in a rapidly industrialising region in Dahej, Gujarat, which is facing environmental challenges due to the lack of technology-enabled interventions. The improper disposal of biodegradable and non-biodegradable waste contaminates local vegetation and water bodies, including ponds and agricultural lands, damaging aquatic life and rendering water sources unsafe for human consumption with long-term ecological damage. There is a high dependence on fossil fuels, exacerbating air pollution and contributing to climate change. The project aims to manage the carbon footprint while recycling the waste collected.

Empowering women and driving environmental sustainability were one of the key objectives of the project. Effective waste management was a major challenge in the value chain. Socially, these environmental issues impact public health, reducing the quality of life for residents.

## Technology-enabled solution provided

Solar power systems, including solar panels, inverters, and batteries have been utilised to mitigate the issues.

The organisation has also developed a digital dashboard to capture all critical highlights such as total waste recycled, biodegradable and non- biodegradable waste recycled, carbon emissions avoided, energy savings, etc. Biogas units, consisting of digesters, gas storage tanks, and piping systems, were also installed in local village households to convert organic waste into renewable energy, thereby minimising methane emissions. Additionally, the installation of 80 solar streetlights, 200 biogas units, 150 smokeless stoves, and solar panels in schools have contributed towards positive environmental impact through enhanced local infrastructure and improved quality of life among the locals. The project has successfully repurposed shredded plastic waste into paver blocks. The technologies were selected based on their sustainability, scalability, and ability to address specific community needs. The project was rolled out in phases, starting with community sensitisation and stakeholder engagement.

## Challenges in implementing technology-enabled solutions

- The lack of awareness among families about waste management was resulting in waste going to landfills or in water bodies. Therefore, awareness and sensitisation became one of the most important steps in implementing the initiative. 2,000+ families were briefed, and group meetings were held with Panchayati Raj Institution(PRI) members.
- There was a lack of trust in new technologies and the need for a supportive infrastructure ecosystem. Initially, community members were sceptical about adopting solar power systems.
- The absence of an existing infrastructure or an ecosystem to run a project like this was a major challenge. Technical training was provided to local technicians and engineers, ensuring proper installation and maintenance of the systems.

## Impact of technology-enabled solutions

The ‘Swachh Waste Recycling Centre’ is powered by solar energy and acts as a centralised facility for collecting and recycling both biodegradable and non-biodegradable waste promoting circular economy in the community.

- Successfully collected and recycled 150,456 kgs of waste comprising of 1,25,810 kgs of biodegradable waste and 24,646 kgs of non-biodegradable waste of which 14,994 kgs were plastic thereby preventing the waste from going to landfills
- Generated 2001 MWh of renewable energy and avoided 1,600+ metric tons of $CO_2$ emissions through clean energy and recycling initiatives
- 8000+ lives impacted in the complete value chain every year
- Sustainable livelihood opportunity was provided for 11 women Green Friends (waste collectors). They were also provided with insurance coverage, including life insurance through Pradhan Mantri Jeevan Jyoti Bima Yojana and accident insurance through Pradhan Mantri Suraksha Bima Yojana


YASH Technologies

More than what you think.

## Yash Technologies

# Digital Shiksha

*Our Digital Shiksha Programme is transforming education by leveraging technology to bridge the digital divide. We are committed to empowering teachers and students with essential digital skills, fostering an inclusive and innovative learning environment for a brighter, more equitable future.*

**Manoj Baheti**
CEO, Yash Technologies


## Summary

The Digital Shiksha Programme is a comprehensive technology-enabled intervention. Phase I focuses on empowering teachers with essential digital skills through a blended training approach using a WhatsApp chatbot. This sets the foundation for Phase II, which introduces digital classrooms to students, thereby enhancing blended learning experiences for grades six to eight, particularly for girls aged 10-16 years. Implemented in Indore, Madhya Pradesh, these programmes align with the New Education Policy (NEP 2020) and aim to bridge the digital divide exacerbated by the COVID-19 pandemic.

## Problem the intervention seeks to address

The key problem addressed by the programme is the pervasive digital divide in India's education system. Despite improvements in primary school enrolment and teaching quality, significant disparities remain in the access to digital resources, particularly in government schools. The pandemic highlighted the urgent need for digital competencies, as only about 9% of students had access to a computer with internet, highlighted in Oxfam's India Inequality Report, 2022. This digital inequality poses a substantial barrier towards achieving quality education and global competitiveness, especially for girls in the age group 10-16 years.

## Technology-enabled solution provided

The project in Indore is a joint initiative of YASH Technologies and Muskaan Dreams, aimed at empowering teachers and students with technology, ensuring a future-ready education system, promoting STEM education and enhancing learning outcomes among government school students from grades six to eight, across 100 schools.

The technology enabled solution for addressing this “digital divide” is implemented in two phases: Phase I focuses on empowering teachers with digital skills through a blended training approach using a WhatsApp chatbot. Capacity building of teachers is done through virtual and on-field workshops on integration of technology in the learning process, helping them with learning basic digital skills and effective use of technology inside the classroom.

Phase II introduced digital classrooms to students, enhancing their learning experience by setting up of digital classrooms/IT labs with smart TV, pen-drive with pre-loaded multimedia content, as well as usage of tracking software. It focusses on a blended learning approach combining both online and offline methods. With a custom designed learning platform, teachers can comfortably navigate the platform, search for the appropriate content and use the system offline to complement classroom teaching. Multiple categories/languages of content are delivered via the platform including videos, audio, digital books, activity-based videos and assessments. Multiple categories of digital content are aligned as per the curriculum are pre-loaded on a pen drive and connected with the server to track data.

All usage reports are recorded and synced to a central project dashboard hosted on a cloud for stakeholders to regularly understand the impact. Weekly tracking of data is done at the school and community level to record progress of the project. This is followed by a peer analysis within team members at the district level to assess the quality of school level output.

## Challenges in implementing technology-enabled solutions

Major challenges included the initial lack of digital skills, resistance to technology and the need for effective digital resources and technical support. These were addressed by leveraging familiar platforms like WhatsApp for training, providing a continuous virtual field support system, ensuring easy access to digital content, using a data-driven approach to monitor progress, address gaps and providing low-maintenance, user-friendly digital tools.

## Impact of the technology-enabled solutions

These initiatives provide critical support to teachers and students, ensuring they are future-ready with necessary digital competencies.

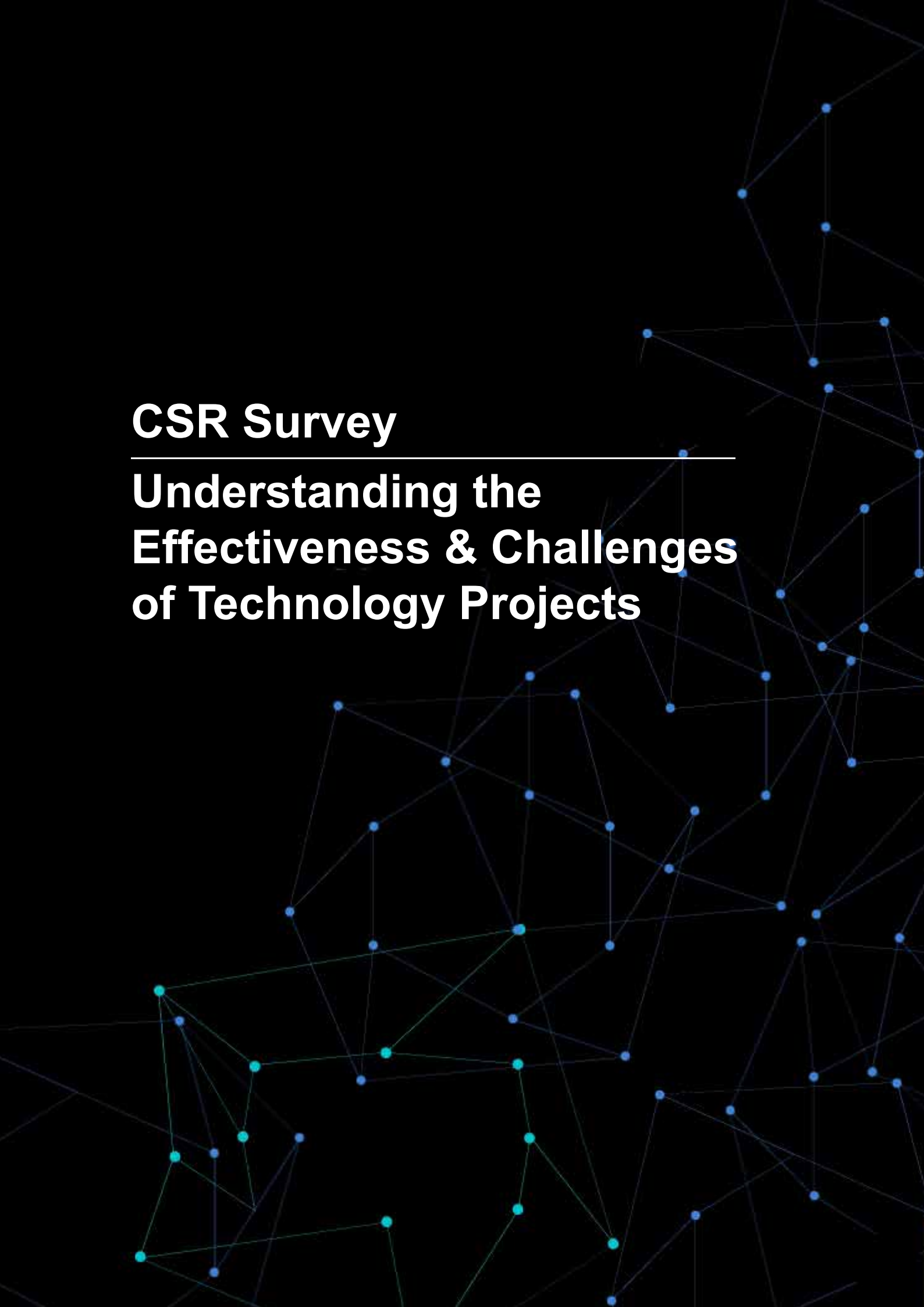
- Trained over 1,200 teachers, benefiting more than 10,000 students in Phase I.
- The programme has enabled 25 schools and 50 digital classrooms impacting approximately 5000 students in Phase II.
- Improved teachers’ digital skills, with 80.2% of teachers using digital aids in teaching after training.
- Positive feedback from teachers, with 83.7% rating the training four out of five.
- Real-time dashboards to monitor progress and facilitate data-driven decision-making.

More than 80% of teachers demanded capacity building on effective use of technology as per the survey findings during the pandemic. Further, usage of a tool such as WhatsApp proved cost effective, easily accessible and requires less maintenance, and digital classrooms that are offline enable seamless learning experience. The overall cost to run the programme is low, with the approximate cost per beneficiary per year at around INR 600.

The organisation is in partnership with RSK (Rajya Shiksha Kendra) to ensure extended government support and align with government policies as well as transfer of accountability and responsibility to government stakeholders at different levels. The programme contributes significantly to achieving SDGs 4, 5, 9, and 10 and aligns with Schedule VII areas such as promoting education, gender equality and improving educational infrastructure. These initiatives not only enhance educational outcomes but also address broader social and economic inequalities.

# CSR Survey

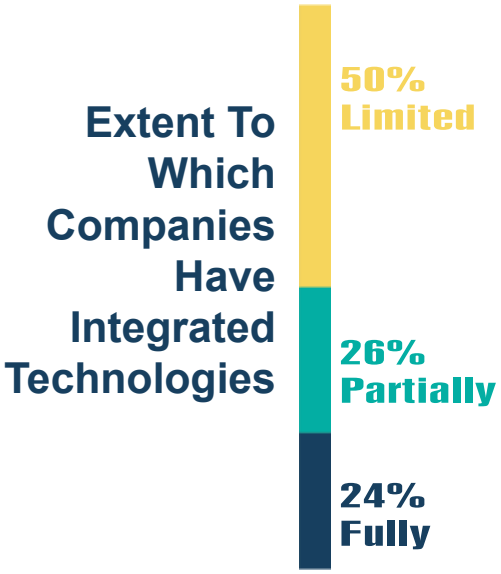
# Understanding the Effectiveness & Challenges of Technology Projects



The Centre of Excellence for Sustainable Development conducted a survey of Indian industry to understand the effectiveness, challenges and sustainability of technology driven projects. Total of 62 organisations undertaking CSR activities across different sectors pan-India responded to the survey. The outcomes have been elaborated below which helps to gauge the trends with regard to use of technology, areas of intervention, implementation challenges, and key insights derived.

# Key Findings

## 50% Companies have the potential to fully leverage technology

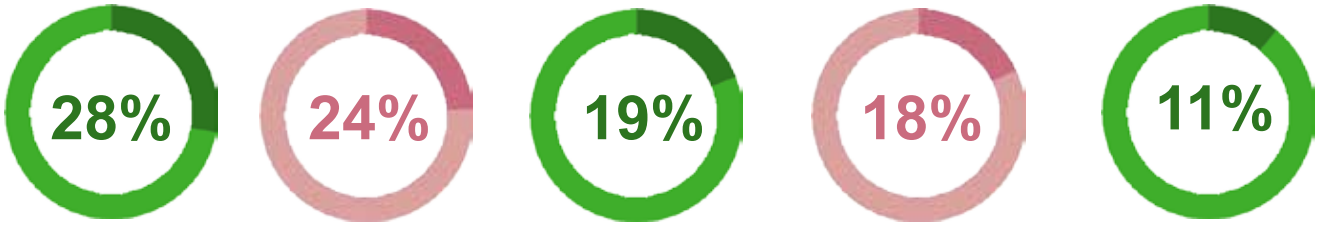



The advent of technology and the COVID-19 pandemic has brought to light the need to leverage technology in CSR. The survey indicates, that 50% of companies are utilising technology in their CSR projects and functions, in some form or other, however, the extent of their use remains limited. These include using software and applications to document CSR activities and develop communication collaterals for stakeholders. Companies are partially leveraging technology in their internal CSR functions, and in developing tech-enabled projects. While those leveraging fully, are mostly in automating the CSR functions and solutions.

Some of the reasons for companies not fully leveraging technologies may be due to reluctance and distrust of the community on using technology, limited access and ownership of digital devices, lack of digital literacy, and unavailability of digital infrastructure to support initiatives of companies. These challenges can be tackled at the community level through advocacy and mobilisation efforts by the companies. Identifying root causes and taking measures to overcome the same at both household and community level. This will complement the efforts undertaken by the companies to further integrate technology in CSR initiatives by making the community also a part of the process.

## Technology Application & Solutions

Companies are using tools to arrive at solutions in myriad ways. Most of them are utilising technology for data collection and project management. Other use of applications includes dashboards for management review of projects, developing annual plans and strategies, monitoring project costs and timelines, and identifying and implementing projects. This helps in the wider integration and use of technology in fields of governance, delivery of social entitlements, agriculture, healthcare, etc.



## Tools for Project Management

These tools help to enhance the efficiency in areas of Management Information Systems (MIS), data analytics, and designing projects aimed at reducing digital gaps in communities.

**60%** Documentation/ Dashboard Tools

**55%** Data Collection Tools

**52%** Data Analytics Tools

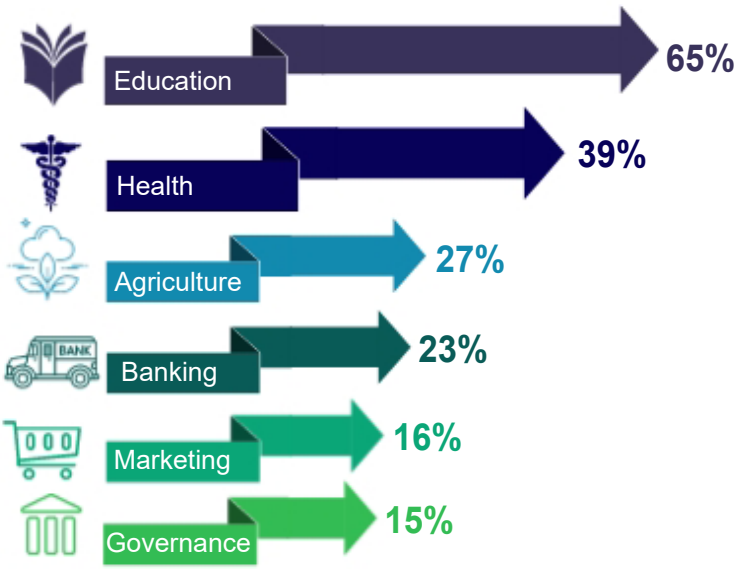
**44%** Project Management Tools

## Methods of Deploying Tech-Solutions in Implementation

The survey data shows that most companies are using technology solutions for collaborating with external stakeholders. This might be through using social media platforms for disseminating project-related information and collaborating with like-minded organisation for achieving project outcomes. Additionally, technologies are utilised for monitoring projects, including activities such as tracking budgets, adhering to project timelines, and identifying potential bottlenecks during implementation.

Companies further deploy technology to monitor their implementation partners using tools like Gantt charts and customised dashboards that provide data-driven insights into project outcomes. However, technology's application for conducting stakeholder surveys is notably low. Despite the use of technological solutions for stakeholders' collaboration, a relatively lesser percentage of companies are using these tools for both internal and external stakeholder surveys. Such surveys are crucial for understanding stakeholder concerns, needs and mapping their expectations timely. This gap suggests an opportunity for companies to enhance their use of technology by incorporating it into their stakeholder survey process. This could provide valuable insights and facilitate more effective stakeholder engagement.

# CSR Programmes Leveraging Technology




The analysis highlights most companies are leveraging technology in education, followed by health, and other areas as seen in the chart. The rural-urban divide, gender disparity, and digital literacy gap in conjunction with an interplay of existing issues of limited affordability, lack of access to technology and technical tools, tend to deepen the existing digital divide. Companies are making efforts to cement this divide, by setting up digital classrooms, making healthcare remotely accessible, providing agriculture-related information through mobile phones, and facilitating access to social security schemes online.

- Teaching learning methods
- Training teachers on smartboards & projectors use
- Equipping classrooms with wi-fi, computers

- Telemedicine & m-health solutions
- SMS/Audio-Visual on preventive healthcare
- Medication reminders
- IEC materials on healthcare

- Online apps on weather prediction, irrigation-management, crop prices
- Monitoring livestock health
- Cameras for crop management

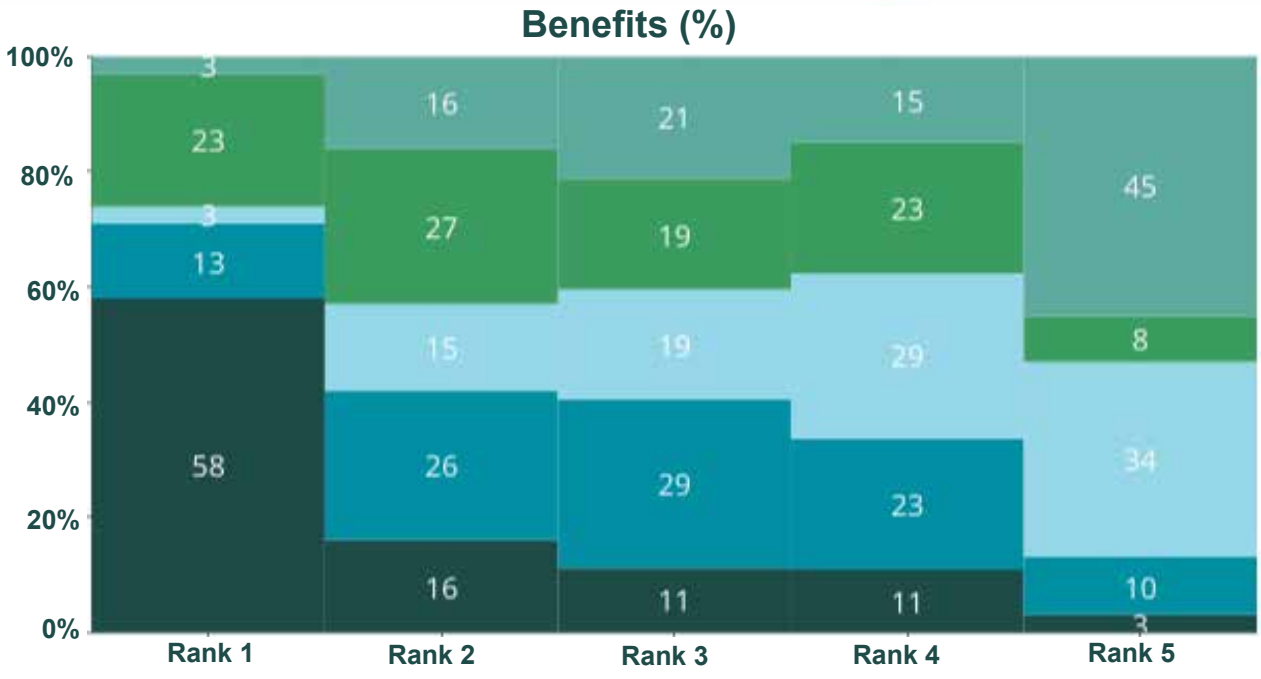
- Training on digital financial literacy, online payments
- ATM usage, withdrawing money
- Applying for loans, debit/credit cards online
- Application for Aadhar, PAN

- Training artisans on e-marketing, online payments, financial management
- Digital archiving handloom designs
- Developing marketing, branding strategies

- Setting internet services in Panchayats
- Delivery of social schemes online
- Developing digital literacy
- Setting Common Service Centres (CSCs)

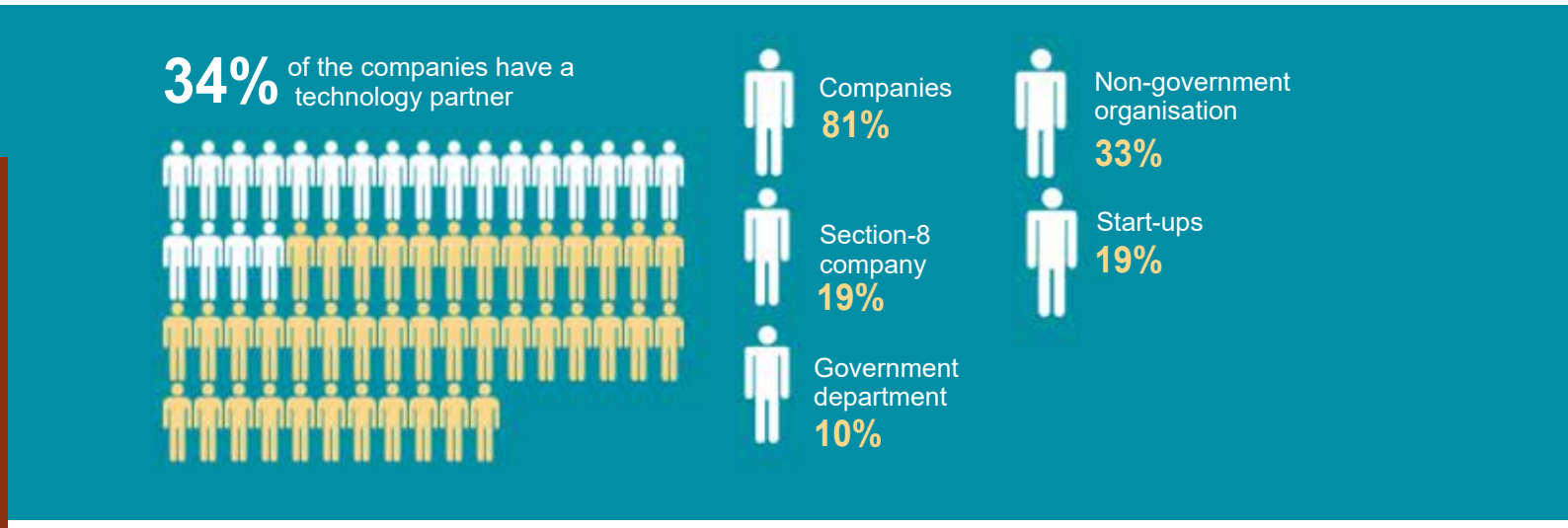
# Benefits Associated with Leveraging Technology

The analysis reveals that technology is most impactful in enhancing project management efficiency and least effective in facilitating project scaling. Specifically, technology has significantly improved project effectiveness and communication, particularly through social media platforms which facilitate information dissemination and collaboration with implementation partners. These aspects are ranked second and third in terms of benefits. In contrast, the ability to provide on-demand data insights is ranked lower, suggesting that technology may not be as effective in delivering timely data and insights necessary for CSR boards to evaluate projects. While benefits like scalability and on-demand data are ranked lower, they remain relevant from a broader perspective. Overall, the findings indicate that operational efficiency and effective project outcomes should be prioritised. However, it is also important to acknowledge the role of technology in scalability and stakeholder communication in the overall context of project management.

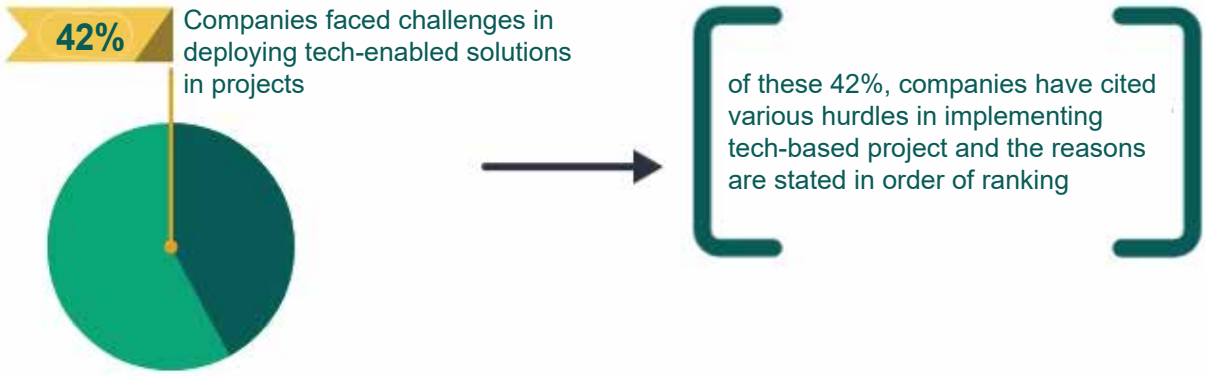



## Availability of Technology Partner

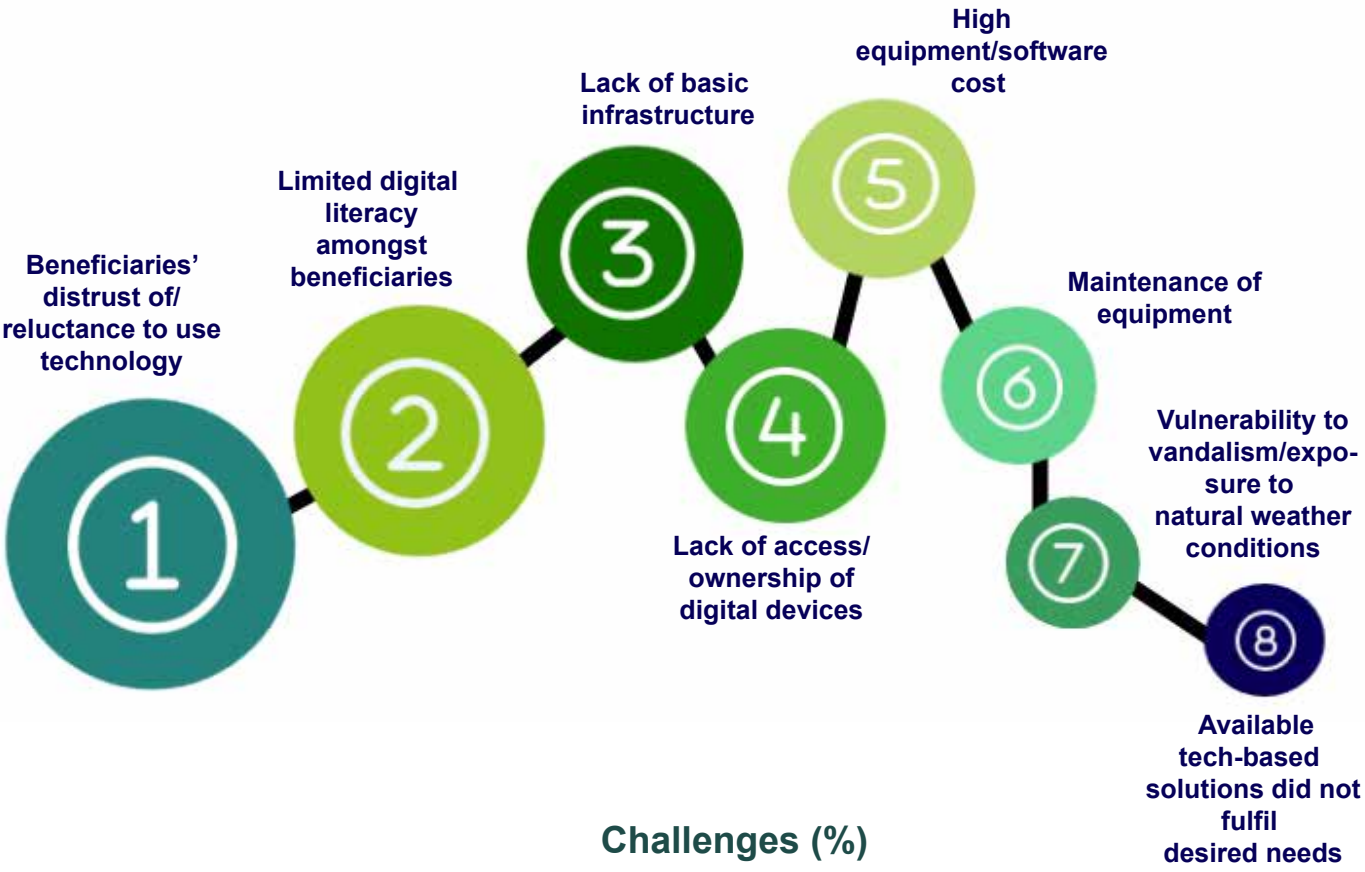
Given that less than 40% of companies have a technology partner for their CSR projects, suggests that they are managing their CSR initiative internally. These might be due to various reasons such as budget constraints, lack of awareness or preference to work traditionally. Partnering with companies might be because corporations see the strategic value in technology partnerships, as these can enhance the efficiency and impact of their CSR initiatives. A smaller percentage of corporations opt for government organisation as technology partners. This can be attributed to the slow, bureaucratic, and complicated approval process of government organisations that cause significant barriers in onboarding.

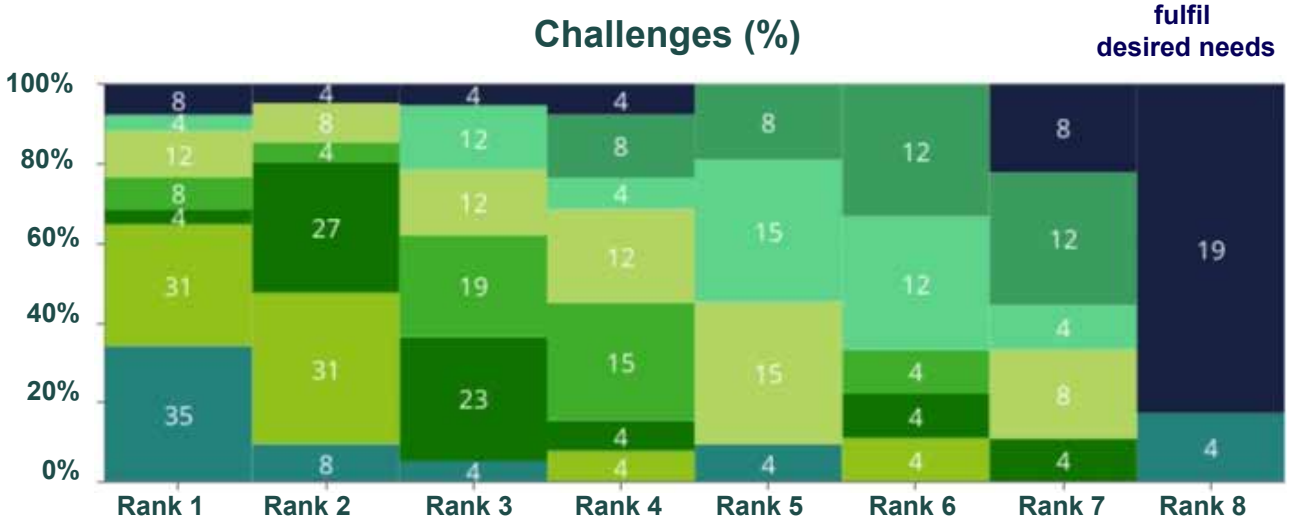



## Challenges In Implementing Tech-Based Projects




The survey data shows, that most of the challenges faced by companies in implementing tech-based projects largely stem from human factors such as reluctance to its adoption, limited access to digital technology, and lack of digital literacy. The pervasive lack of trust in technology and reluctance to its adoption, particularly when digital literacy is limited, hinders its adoption. Additionally, the lack of knowledge to navigate technologies safely coupled with limited digital literacy, exacerbates the existing digital divide. This is further compounded by factors such as the affordability-availability of digital tools, and infrastructural inadequacies like irregular electricity supply, and unstable internet connection. Hence companies need to prioritise and address these challenges that are largely related to the adoption of technology by people over technical and logistical challenges such as the high cost of equipment, their maintenance, and managing vandalism. Companies can develop strategies that address the distrust and misconceptions about technology. This can be done by advocating for safe technology use, increasing digital literacy, providing resources and demonstrating its benefits and practical applications in a relatable manner. This will help bridge the gap in understanding and cultivate a more positive attitude toward technology.




- Beneficiaries' distrust of or reluctance to use technology
- Limited digital literacy/knowledge amongst beneficiaries
- Lack of basic infrastructure (such as electricity etc.)
- Lack of access and ownership of digital devices
- High cost (capex or opex) of technology-enabled solutions
- Maintenance of equipment due to non-availability of technically qualified person
- Vulnerability of equipment to vandalism, exposure to natural weather conditions etc.
- Available tech-based solutions/platform did not fulfil the needs as desired during the project

## Resource Intensiveness

52%

**Companies find tech enabled initiative to be resource intensive**

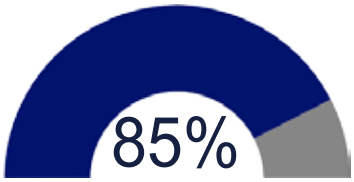
More than 50% of companies find tech-enabled initiatives to be resource-intensive (financially and non-financially). However, companies pointed out that resource intensity justifies the outcomes and impacts of the projects in comparison to non-tech projects. There are various reasons why companies find resource intensity to be justified. One of the main reasons is that companies believe that while the initial resource investment for technology-driven projects can be high, the long-term benefit often justifies the cost.

The other justification pointed out by the companies was the fact the technologies have the potential to enhance efficiency, effectiveness, scalability, and the overall impact of projects. Another observation that is in line with the justification for the resource intensity is that while tech-enabled initiatives are resource intensive, the outcomes are more impactful than the non-tech-enabled projects. For. e.g. digital smart classrooms generate greater engagement and interest among the students which complements traditional book-based teaching methods. As a result, this enhances students' learning abilities and allows better retention of concepts.

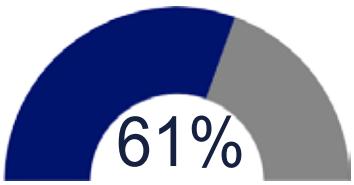
Companies also justified the resource intensity by pointing out that the tech-enabled initiatives strengthen the data collection, monitoring, analysis, real-time insights of projects which helps in analysing the process of the project and taking the right decision for innovation in the projects.

## Benefits of Intervention

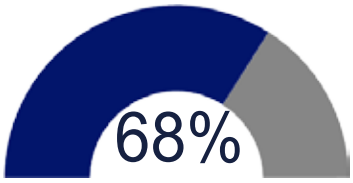
More than 80% of surveyed companies believe that technology-based CSR projects should be continued as they enhance the efficiency of projects. They can monitor the projects in a better manner by using online tools and dashboards that provide real-time updates of project-related data, which are used by companies to undertake midcourse correction as and when required. Further, these online tools and dashboards have helped provide insights that are more analytical. Through these data-driven insights, companies can take project-related decisions, track project outcomes and deliverables timely. Companies also believe that proper identification of risk is equally important before deploying the project, these helps de-risk companies from committing to the community on any initiative that might not be feasible and take measures for successful implementation.



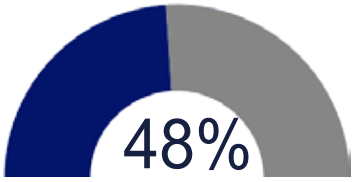

Enhanced efficiency of CSR projects & processes




Data-driven insights




Enhanced monitoring & evaluation




Optimum utilisation of resources


Prior risk identification before deploying technology

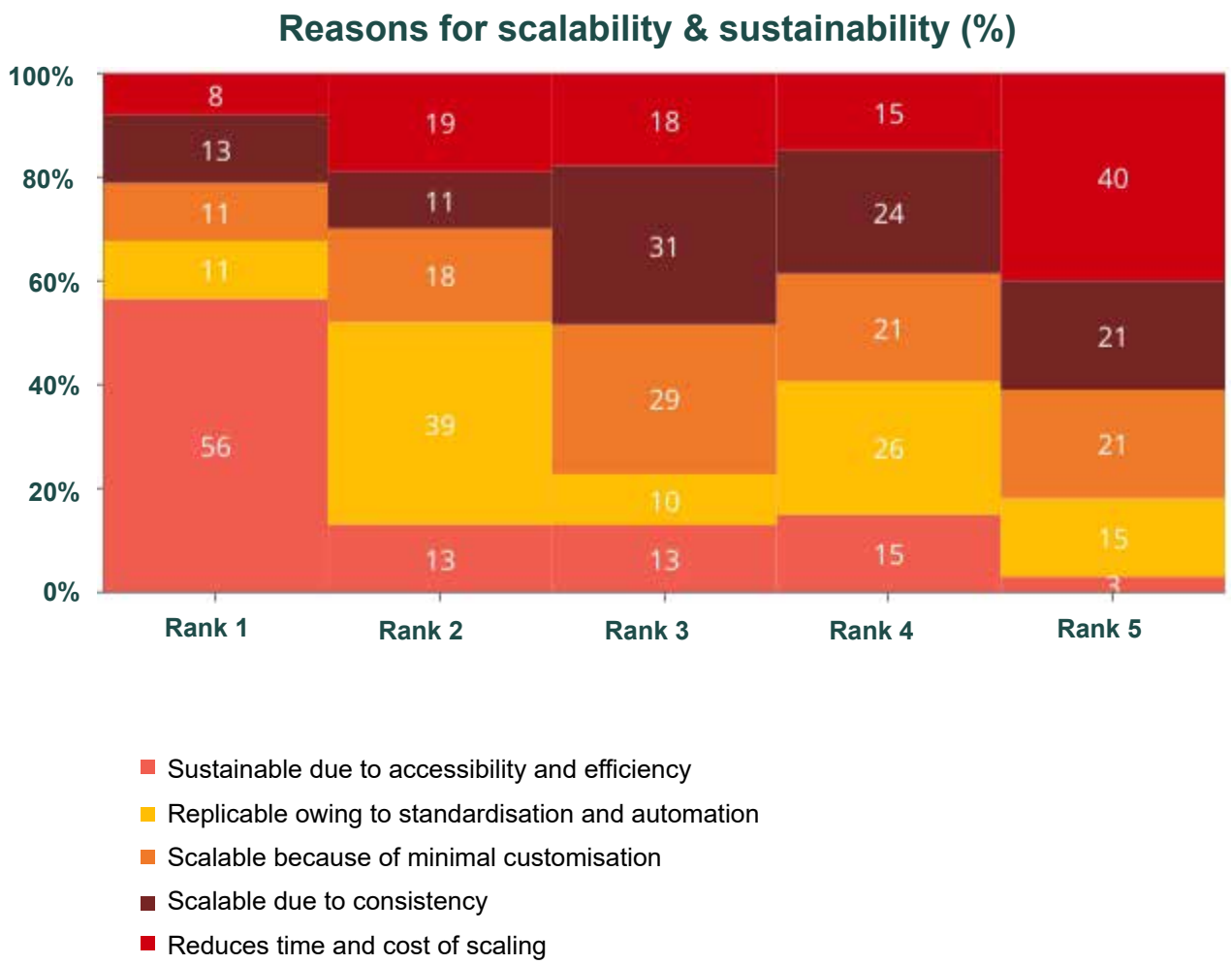
## Sustainability and Scalability of Interventions

The survey data shows that the majority of the companies rank the statement ‘sustainable due to accessibility and efficiency’ as the most reflective statement of their initiative. This indicates that the technology provides efficiency which helps in the sustainability of their initiatives. The statement of ‘replicability due to standardisation and automation’ is chosen second and fourth highest by the companies when it comes to being reflective of their projects. It indicates an interesting statistical anomaly, wherein companies believe that technology helps in replicability of their projects and a similar percentage of companies do not agree with it.

This points out that, some companies find it easier to replicate tech-projects which may be a result of favourable on-ground factors such as community they are working with, behaviours and adaptability to the new projects. At the same time, for companies that have responded otherwise, it reflects that these companies might be finding it tough to replicate tech-projects due to high on-the-ground variability related to above mentioned factors.

‘Scalability due to consistency’ is ranked third amongst the statements chosen by the companies to identify the impact of technology on their initiatives, demonstrating its importance in implementing such projects. Lastly, most companies agree that technology projects have a limited or negligible role in reducing the time and cost associated with scaling.

This reinforces that such initiatives are generally time-consuming and resource intensive. The statement ‘scalable due to minimal customisation’ is not ranked highest in any of the ranking categories. This showcases that companies either do not agree with the statement enough or it lacks visibility, reflecting that companies need to give attention to this aspect internally.



# Conclusion and Recommendations

From the anecdotal case studies and the empirical survey, three key conclusions stand out. One, technology use is widely prevalent; however, its sophistication varies. At a rudimentary level is the use of desktop and mobile applications, and social media platforms for planning, tracking, monitoring, documenting, reporting, and communicating CSR activities.

Use of high-end technology is still limited both in terms of number of companies and also in terms of development areas.

The other is that people are the biggest challenge to deployment of technology-enabled solutions. Interestingly, these people are not just the beneficiaries, but those in companies spending CSR money, and those in between, i.e., implementing partners.

Lastly, technology-enabled solutions, if implemented successfully, do enhance the impact of CSR projects. But it is not a function of CSR spends alone. It is a strategic approach to CSR and a long-term view of development changes that determines the use of technology.

Overcoming the people challenges appears to be crucial in the effort to increase the use of technology in CSR projects. Demonstrating technology use in pilots with early adopters in communities helps in convincing the others in their networks. The trust deficit or apprehensions in using technology can thus be overcome.

Similarly, building capacities of the implementing organisations and partners can also help in overcoming their apprehensions. There will be two technology use cases with them. One will be the technology-enabled solution for a community problem; the other will be process and monitoring related technology platform. Of the two, the partners are likely to be resistant to the latter with reasons rooted in the historical distrust between business and civil society. However, a consultative approach and building their capacities can overcome trust deficit.

Another set of people are within the company, who may view CSR strictly as a compliance matter, a year-on-year spending exercise, and do not appreciate a strategic and developmental approach to tackling community challenges, in line with overall business objectives. This might be more challenging cohort to overcome than the other two. Building a strong case for technology-use, with business implications including financial, and finding a champion in the top management and in the CSR Committee of the Board of Directors, are the approaches to adopt.

Companies could tap into digital assets (for instance, digital assets on health, Aadhar stack, registered labour database) that governments have created over the last 15 years. This would call for working in partnership with relevant government departments to address concerns on data privacy. Many companies work with governments at different levels to leverage government schemes. Leveraging relevant digital assets in that partnership could further improve the efficiency of CSR projects.

The first decade of CSR legislation in India has brought about structural changes in the way companies, civil society organisations, and communities worked on CSR projects. The amount has substantially increased, method and methodologies are more structured and formal, there's a strategic approach to CSR, and a decent increase in technology use in solving community challenges.

As the profitability of Indian companies continues to increase, the volume of CSR spends will also increase. Maximising societal returns on millions of rupees spent each year rests heavily on leveraging advanced technologies in CSR projects. It may not be surprising that the next ten years of CSR in India will be shaped by increased technology use.

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CII-ITC Centre of Excellence for Sustainable Development
3rd Floor, Andhra Association, 24/25 Institutional Area,
Lodhi Road, New Delhi 110003

2nd Floor, 124, Janpath New Delhi
www.sustainabledevelopment.in

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