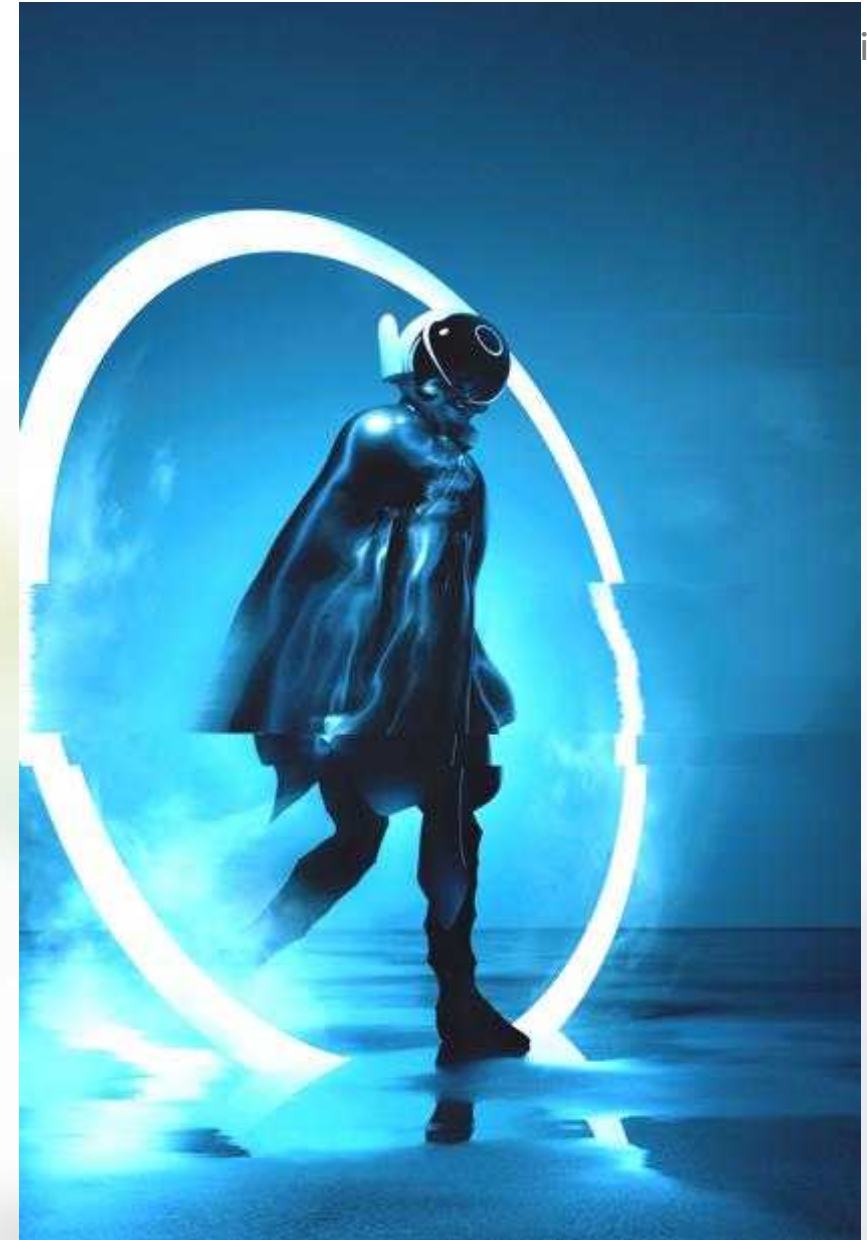




beyond tomorrow

Company Overview
April 2020



il 2020

We are...

We design, build and manage
fibre and wireless networks
for our customers

Providing...

We are an **industry leading integrator** of data networks,
with core capabilities in **optical connectivity and
virtual mobile edge solutions.**

Achieving...

We believe in harnessing technology to create a world
with **next generation connected experiences** that
transform everyday living

Five themes that support this

1. A great fibre and cable company

– *tech, people and patents*

2. Industry leading Integrator of data networks

– *Large scale, complex deployments, will and purpose*

– *End-to-end solution provider, unique value and impact*

3. Developing cutting-edge capabilities in virtual mobile edge solutions

– *Access solutions disruptions, innovation, value and speed*

4. At heart a tech company, with great minds and capabilities

- *tech advancements, AI, Robotics, Data centre*

5. Transforming everyday living

– *Caring about community, environment, empathy, purpose and commitment*

STL in numbers



\$1.5b strong order book

358 global patent

50m fkm optical fibre capacity

Zero waste to landfill certified

30+ nationalities of people

- \$737 million in revenue
- 43% revenue from exports

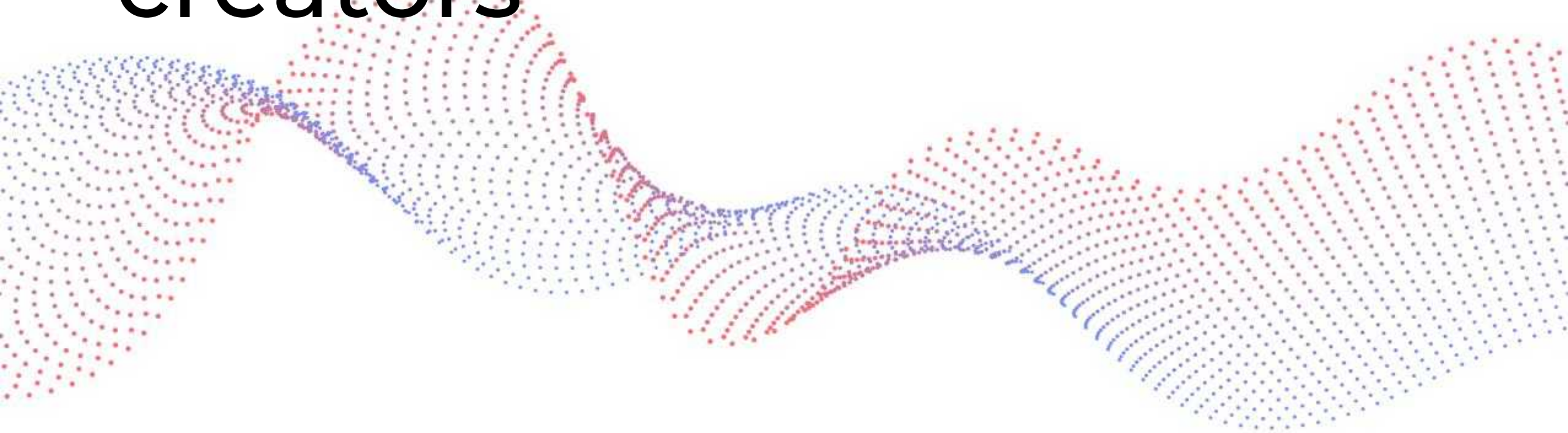
- 5G Research programs with IIT
- Partnership with Open Innovation Network, MIT, Rutgers

- 4 Innovation Centres
- 7 Global Production Facilities

- 100% Recyclable Packaging Material
- STL Garv – the rural connectivity platform
- STL Academy – trained more than 1.5k

- 3.1k+ Associates
- Great Place to Work Certified

Innovating for tomorrow's network creators





Telco s

to connect each customer with the latest data applications while ensuring better experience

30x denser networks to connect 1.2 Billion by 2025



Cloud Co.

to enable future applications and immersive content by bringing compute and storage capabilities to the edge

\$66 Billion cumulative annual capex by top three Cloud Co.



Citizen Networks

to empower every citizen with high-quality primary connectivity

City governments, globally investing to “democratize broadband”



Large Enterprises

to create secure networks for the specialized enterprise use cases

Secure networks market to touch \$250 Billion, by 2024

Innovating for the Telcos

Opportunities

- Deep Fiberisation
- Denser Fiberised Networks
- Programmable Networks and AI
- Managed Services and Network Monetization

Trends driving innovation
5G, IoT and FTTX

▲
Telcos

Cloud Co.

Citizen Networks

Large Enterprises

Innovation at work – Telcos



Faster Fibre to the home provisioning

Using STL Yogalite™ Cable with Micro-Module for a leading French Carrier



Innovative FTTx solution for SDUs

A Retractable Solution by STL for a top South African Telco



Network Capacity Enhancement

Using STL Bullet Series Micro Cable for leading Asian ISP

Faster Fibre to the home provisioning



Using **STL Yogalite™ Cable** with Micro-Module for a leading French Carrier

Challenges

- Faster rollout required to achieve pan country coverage by 2022
- Availability of semi-skilled manpower
- Time consuming trainings

Micro Module with A2 Fibre

- Easy stripping and cleaving without any equipment
- Deskilling of field installation- Executable with semi-skilled manpower
- Flexible installation - kink less module with bend insensitive fibre
- Fibre extends network reach by 16+ kilometres

30% Time Saving
Faster Installation

5x More Storage
Space Utilisation

1.5 dB
Improved Signal
Strength



Innovative FTTx solution for SDUs

A Retractable Solution by STL for a top South African Telco

Challenges

- 3M home passes by 2021 (E)
- Expensive Right of Way permission
- Time consuming installation

48F Retractable Cable Solution

- Easy fibre mid span, retract and premise drop
- Upto 33% reduced trench depth
- Low skill and craft friendly installation
- Easy fibre pulls upto 100 meters

The STL logo is located in the top right corner of the slide. It consists of the letters 'STL' in a bold, white, sans-serif font, with a small green leaf-like icon to the right of the 'L'.

30% Faster Network Buildout

- Zero splicing
- Zero connector points at drop locations

35% Cost Savings

Reduced trenching cost and time



Network Capacity Enhancement

Using **STL Bullet Series Micro Cable** for leading Asian ISP

Challenges

- Brownfield expansion in a busy SE Asian city
- Time consuming Right of Way and pole monopolies limiting aerial installation
- Multiple turns and road elevation along the blowing route

World's Slimmest 576F Micro Cable

- Future Ready - 2X More Fibre - 10.3 mm overall diameter with 200 micron fibre
- Faster - Quick Installation - Greater ease of handling
- Cost Effective - Efficient Logistics - Lesser spool weight and infra need for overblowing

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60% Reel Footprint

Reduction

- 67% less loaded reel weight
- Leading to 40% lower inventory spend

2x More fibre density

10+ Years extension in network lifetime

35% Cost Saving in Network CAPEX/ OPEX in 10 years timeline



Innovating for the Telco Co. Cloud Co.

Opportunities

Data Centre Interconnect
Edge Networks

Trends driving innovation

Massive data Centre deployment and Network Virtualization

Telcos

Cloud Co.

Citizen Networks

Large Enterprises

Innovation at work – Cloud Co.



High Speed data transfer along with power

Using POWER-Tx™ Solution for a Global Cloudco.



De-congesting LTE Network

Using Smart Wi-Fi Offload Solution for a Disruptive Internet Co. in Japan



High capacity data transfer with extremely low latency

Using TruRibbon™ for a Hyper scale CloudCo.

High Speed data transfer along with power

Using **POWER-Tx™ Solution** for a **Global Cloudco.**

Challenges

- Enable power and data transfer together to cater to the demands of edge-network assets
- Enable converged networks

POWER-Tx™ Enabling the Internet of Things

- Thermally stable upto 90W
- IEEE802.3bt compliant
- Scalable and adaptable for future network requirements
- Safe with large bundle sizes

STL

20-35% Cost

Saving

Move, add or change infra cost saving with converged network

40% Saving in
Pathway Material Cost

50% reduction
in cabling
requirements

Faster Fibre to the Home Provisioning

Using **Smart Wi-Fi Offload Solution** for a **Disruptive Internet Co.** in Japan

Challenges

- Congested LTE network
- Spectrum shortage for expansion
- Under-utilized Wi-Fi access points

Smart Wi-Fi Offload Solution

- Intelligent Network Selection - Automatic selection of LTE/ Wi-Fi
- Edge Analytics - Insights to improve experience, expand network etc.
- Policy Management - Manage experience from a centralized location



20-30%

Decongested Network
Reduced cost per GB

High capacity data transfer with extremely low latency

Using TruRibbon™ for a Hyper scale CloudCo.

Challenges

- Data Centres need 1000s of fibre in limited space
- More fibre lead to complex identification and handling
- All current solutions are sub-optimal

TruRibbon™

1st ever design to meet all needs

- High Density
- Easy Handling
- Scalable
- Easy Identification
- Easy Splicing

4x

Faster Installation

2x

More Density



Innovating for the Citizen Networks

Opportunities

Rural

Connectivity

Smart

Solutions

Trends driving innovation

Bharat Net, Digital India and Make In India

Telcos

Cloud Co.

Citizen Networks

Large Enterprises

Innovation at Work – Citizen Networks

The image shows a large, ornate, white stone structure, likely a temple or a historical monument, with multiple towers and intricate carvings. The sky is blue with some light clouds. The text 'Futuristic SDN ready state wide network' is overlaid in white on the left side of the image.

Futuristic SDN ready state wide network

providing ubiquitous access of high speed broadband in 4.5 million homes in the state of Telengana using FTTx Mantra and iCORE solution

The image shows a rural village scene with several small, simple houses with thatched roofs, surrounded by green fields and trees. The sky is overcast. The text 'A transformative digital inclusion project' is overlaid in white on the left side of the image.

A transformative digital inclusion project

connecting 7.5 million people and 4,045 villages in the state of Maharashtra using unique STL LEAD 360 approach

The image shows a close-up of a young woman with dark hair, smiling broadly. She is wearing a dark, sleeveless top. The background is blurred, suggesting an outdoor setting. The text 'Security through the power of IoT' is overlaid in white on the left side of the image.

Security through the power of IoT

impacting positively 325K lives with smart IoT driven infrastructure in Kakinada Smart City in the state of Andhra Pradesh

Futuristic SDN ready state wide network

providing ubiquitous access of **high speed broadband** in **4.5 million homes** in the state of **Telangana** using **FTTx Mantra** and **iCORE** solution

Challenges

- Single partner for design & deployment of 17k+ kms OFC network
- Efficient network design – Scalable, Flexible, Future proof & reliable

Telangana state wide network

Using FTTX Mantra and iCORE

- Futuristic/SDN ready state wide network
- Infrastructure synergies-Enabling rapid & reduced cost of deployment

STL

30-40%

Cost Efficiency

Leveraging synergies through Co-build opportunities

4X Increased Design Speed

High precision for large scale deployment

iCORE FTTX mantra

A transformative digital inclusion project

connecting **7.5 million people** and **4,045 villages** in the state of **Maharashtra** using unique STL **LEAD 360** approach

Challenges

- Connecting 7.5 million people and 4,045 villages under project Mahanet
- Laying of 20K+ Kms Optical Fibre Network

Mahanet Using LEAD 360 Approach

- Future ready
- IP MPLS architecture
- Robotics, big data & analytics
- Automated project management

STL

2x
Deployment Speed

50%
Reduction
in Manpower



Security through the power of IoT

impacting positively **325K lives** with smart IoT driven infrastructure in **Kakinada Smart City** in the state of **Andhra Pradesh**

Challenges

- 120 Km of underground optical fibre to be laid
- 350 city surveillance cameras, 400 free Wi-Fi access points and 640 smart lights to be deployed

Kakinada Smart City

- 360° situational awareness through fibre optic sensing and smart surveillance
- Action mobilisation through advanced CCC and video analytics

50% decrease
in crime incidents in the city
of Kakinada

13k daily Wifi users
getting mission critical service
support during cyclones

325k lives
positively impacted with
smart IoT driven
infrastructure



Innovations to secure and modernize large enterprises

Opportunities
Network Modernisation
Network Security

Trends driving innovation
Need for Ultra Fast, Secure, Reliable and Modernised Networks

Telcos

Cloud Co.

Citizen Networks

Large Enterprises

Innovation at Work – Large Enterprises



Network Modernisation

\$500 million multiyear project to design, execute, operate & maintain the **Indian Naval Digital Network**



Intrusion Proof Smarter Network

\$350 million project for creating the world's largest **intrusion-proof smarter network infrastructure** in **Jammu and Kashmir** state of India for the **Indian Army**

Network Modernisation

\$500 million multiyear project to design, execute, operate & maintain the **Indian Naval Digital Network**

Challenges

- Optimal solution to address a range of defence grade-security solutions
- Develop independent high capacity end to end communication network linking multiple naval sites and Indian administered islands.
- Develop secure data centres and customised enterprises application solutions

Project Varun Naval Communication network

- Intrusion proof establishments
- Network creation and modernization
- Integrated command and control centre
- Software defined security solutions

12

Data Centers

30

Telepresence Studios

44

Network Locations

33

Civil Locations

1500

Sites

30k

Network Elements

Intrusion Proof Smarter Network

\$350 million project for creating the world's largest **intrusion-proof smarter network infrastructure** in **Jammu and Kashmir** state of India for the **Indian Army**

Challenges

- Optimal solution to address a range of defence grade-security solutions
- Rugged terrain (17,000 ft above sea level), unpredictable weather and sub zero temperatures (-14° C)
- Scarcity of skilled resources
- Safety and security of employees and vendors due to geopolitical constraint

NFS

Network for Spectrum Project

- Highly secure intrusion proof network
- Scalable and cost optimized
- Network Monitoring and GIS mapping
- Best cable laying practices

10k kms
OFC Network

25+
Years Network Life

7X
Commissioning Speed

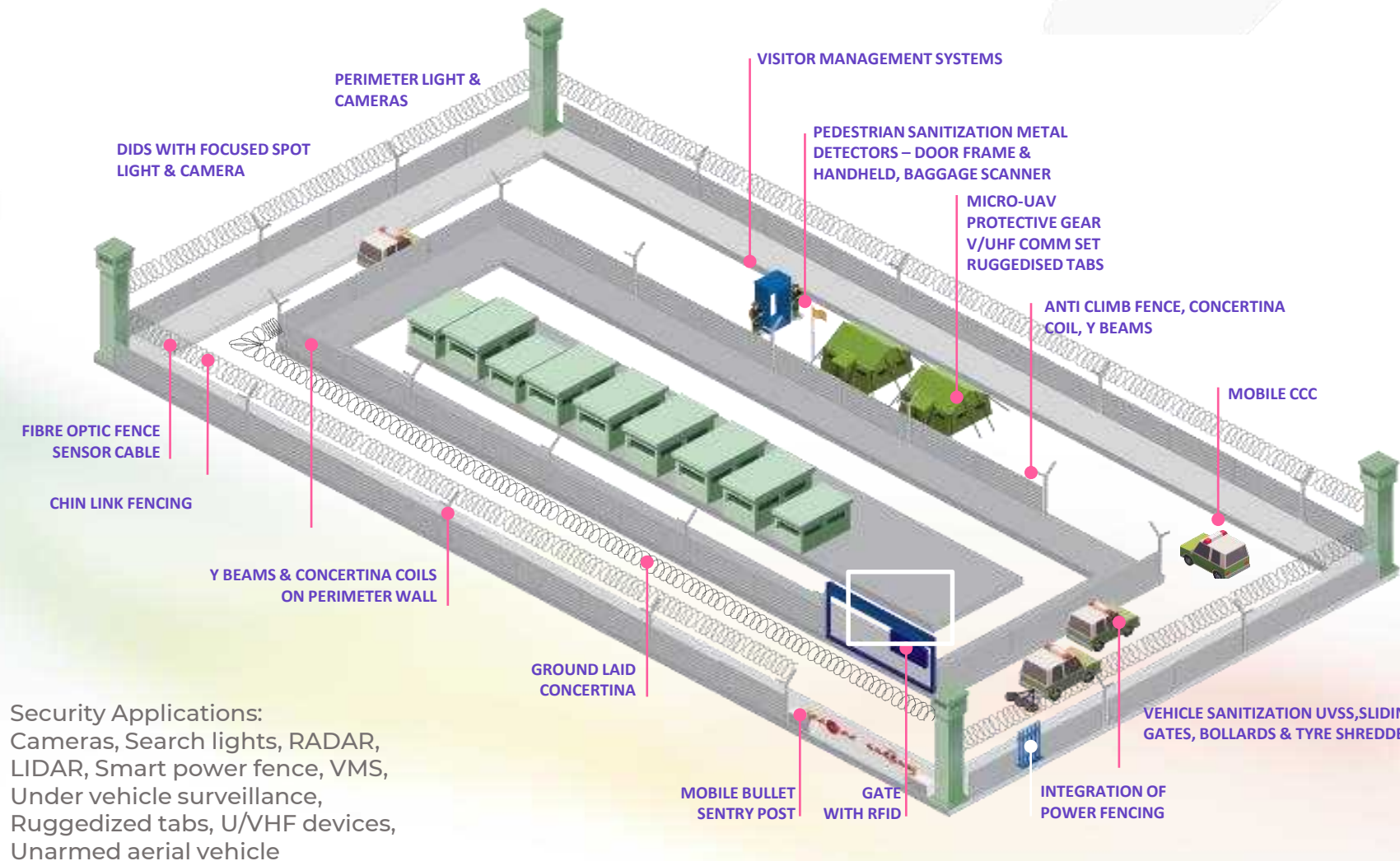
Everything critical 'secured' with Sensron+



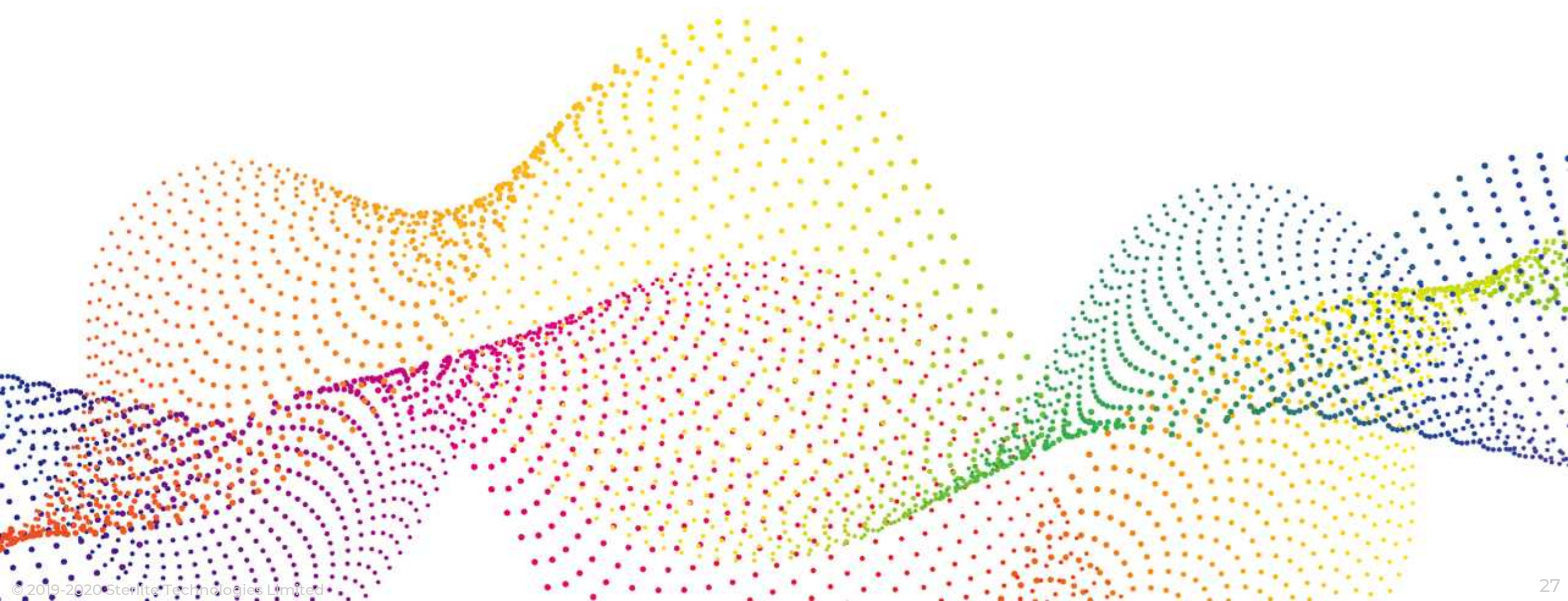
Signature STL design ecosystem

All that you need for a secure infrastructure

- Fibre and hybrid sensing
- Intrusion-proof network
- Full suite of security
- Security applications
- Command and Control centre



Innovating across the network layers



Innovation across Network Layers - One STL



AI Driven
Engagement



AI Analytics
Web scale DevOps

Intelza

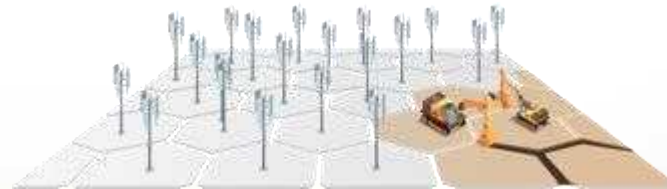
Affordable Edge
Virtualization



Programmable Networks

PODS™
Programmable Open Disaggregated Solutions

Hyper Scale & Fast
Deployment



Ultra Fast Deployment
Automation & Robotics



Algorithmic/End-to-End
Design



Algorithmic Design

FTTx
mantra
One Solution. Countless Opportunities

iCORE

Hyper Scale Optical
Connectivity



Advanced Photonics
Materials Science
Precision Manufacturing

TruRibbon™

POE

Actionable insights in real time without compromising on security

An intelligent platform for data-driven digital world

Unified Platform yet Modular in Solution

All-in-one data ingestion to insight capabilities. Each specific use case can be offered as a solution

AI & ML-driven Actionable Insights

Actionable insights powered by AI and ML to auto-track patterns to execute use cases

Multiple Deployment Options

Facilitates on-site, cloud & hybrid deployments with ease

Flash Search Capability

Search 20 trillion records in an hour for quick decision-making

Two-speed Architecture

Runs seamlessly alongside existing/legacy systems

STL

Up to **70%**
increase in monetization revenue

Up to **30%**
reduction in infrastructure cost

Up to **50%**
Reduction in data duplicity and improved data integrity

Future-proof solution with cloud ready solution

Increase speed of deployment and launch of new products and services seamlessly

Intellza

Digital Reinvention

Simpler and Faster

DevOps-based, Analytical Intelligence-driven, Web-scale-enabled Network Software solution.

DevOps

Three-speed Agile Delivery model for Faster Deployment of Business Critical Applications

Analytics

Common Data Intelligence with Advanced Analytics

Web-scale

Zero Downtime Upgrade & Zero Touch Deployment, Auto-scale of Application

Network Software

Carrier & Enterprise Wi-Fi, Digital Service Enablement, FTTx Connectivity, IoT Monetisation and Next-gen 5G Roll-out

STU

Up to **80%**
reduction in time to market

Up to **70%**
reduction in delivery time

Up to **50%**
reduction in Hardware TCO and
troubleshooting time

9x reduction in Query Time

3x Hardware Reduction

DAWN

Network agility with programmable networks

Software Defined with Virtualized Network Functions

Aligned with ONF

Programmable, Agile and Intelligent

Hardware and Software Abstraction

Control and Data Plane separation

Reduced OPEX

Near Zero Touch Provisioning (ZTP) deployment

Faster to Market

Quicker new service provisioning



Innovation that intelligently reduces operational expenses while smartly upgrading the experience

PODSTM

Programmable Open Disaggregated Solutions

Full-stack solution for world's first Exabyte network

Challenges

- Massive scale of deployment in a short timeframe
- High pressure on time to market
- Projects pan India leading to very high complexity

Lean-Agile Approvals

Minimum touch point, Blanket RoW approval

100% Survey

Digital tools and automation

STL Academy

Skilled manpower pool

Partner and Tech Ecosystem

Pan INDIA presence

2

Speed of deployment

X
50



Manpower for supervision and survey

FT

Improving Network life Better TCO

R



High performance integrated network architecture design

Challenges

- Optimising the existing NW Assets
- Integration of highest magnitude
- Incremental CAPEX resulting in gradual transition to a future ready network

Integrated network

across physical, logical and application layer

Centralized planning

One central office with high fibre count cables and larger clusters

Cost efficient

Creating synergies through IRU/ Co-build

STL

4x

Increased design speed

30-40%

more cost efficient network

17k+

kms network design and deployment



Meeting scale with innovative fibre and kit designs

To enable an ambitious target of 1 billion home passes (worldwide) by 2021

The Stellar Fibre

100% compatible fibre of the future



Best-in-class attenuation and bend insensitivity

FTTx Kits

Modular, customizable, Plug-n-Play solution

Faster Deployment

Reduced splicing and provisioning time with plug-n-play solution

Reduced Cost

Reduced cost with semi-skilled workforce



Why STL

01.

No legacy to defend –
customer first

02.

Co-create and
co-invest

03.

Comitted
to
outcomes

04.

Carrier grade
everything

05.

Rapid/agile
transition to
modern

Top 3 integrated fibre producers globally

7

Global Production Facilities

50 fkm optical fibre capacity

M Multi-fold increase in capacity

- Overall Fibre capacity expansion from 30 to 50 MFKM
- Cable capacity expansion from 15 to 33 MFKM

Industry 4.0 standards

Fully automated machinery with robotic operations

Efficient supply chain

Reduced delivery times and SCM cost

Optical Fiber Plants

- Waluj, Aurangabad, India
- Shendra, Aurangabad, India
- Jiangsu Sterlite Tongguang Fiber Co., Ltd, Haimen-City, China

Optical Fiber Cables

- Rakholi, Silvassa, India
- Metallurgica Bresciana, Dello, Italy
- Sterlite Condu spar, Parana, Brazil

Specialty Data Cables

- Dadra, Dadra & Nagar Haveli, India



4

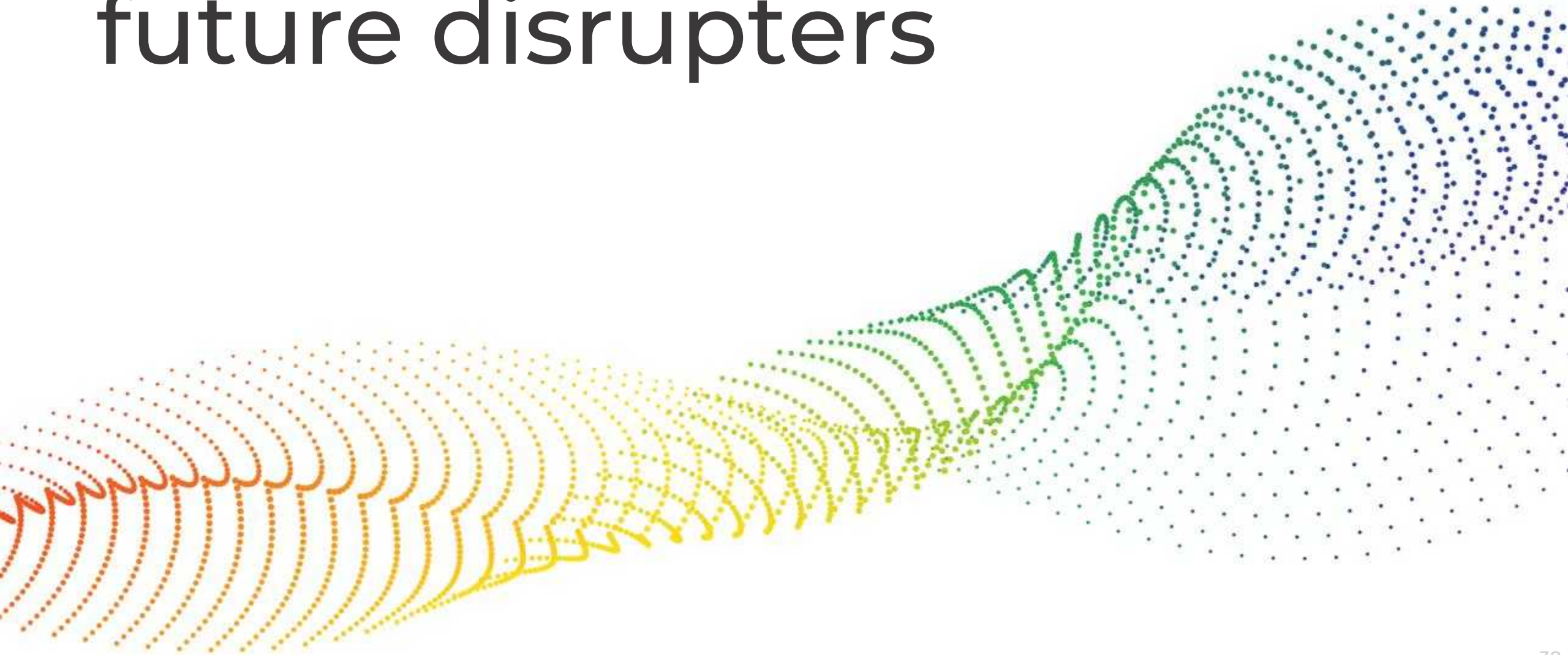
**Innovation
Centers**


358

**Patents
Globally**

- ❖ Optic Fiber Center of Excellence, Aurangabad
- ❖ Cable Design Lab, Silvassa
- ❖ Center for Smarter Networks, Gurgaon
- ❖ STL Cloud Lab, Ahmedabad

Innovating with the future disrupters



A group of five men in white cleanroom suits and caps are standing in a cleanroom environment. They are engaged in a discussion, with one man in the center gesturing with his hands. The background shows cleanroom equipment and bright lighting.

STL Academy – Skilling the Future

Training for deployment of
future-ready
communication networks

15k+

Trained Professionals
Job Creation

RIVIGO

50% delivery lead time reduced through smart trucks using GPS

DELHIVERY

10-15% cost reduced on logistics with flexible delivery and shipping options

mogliX

Multiple Vendors, Single Point with GST compliance making procurement simpler

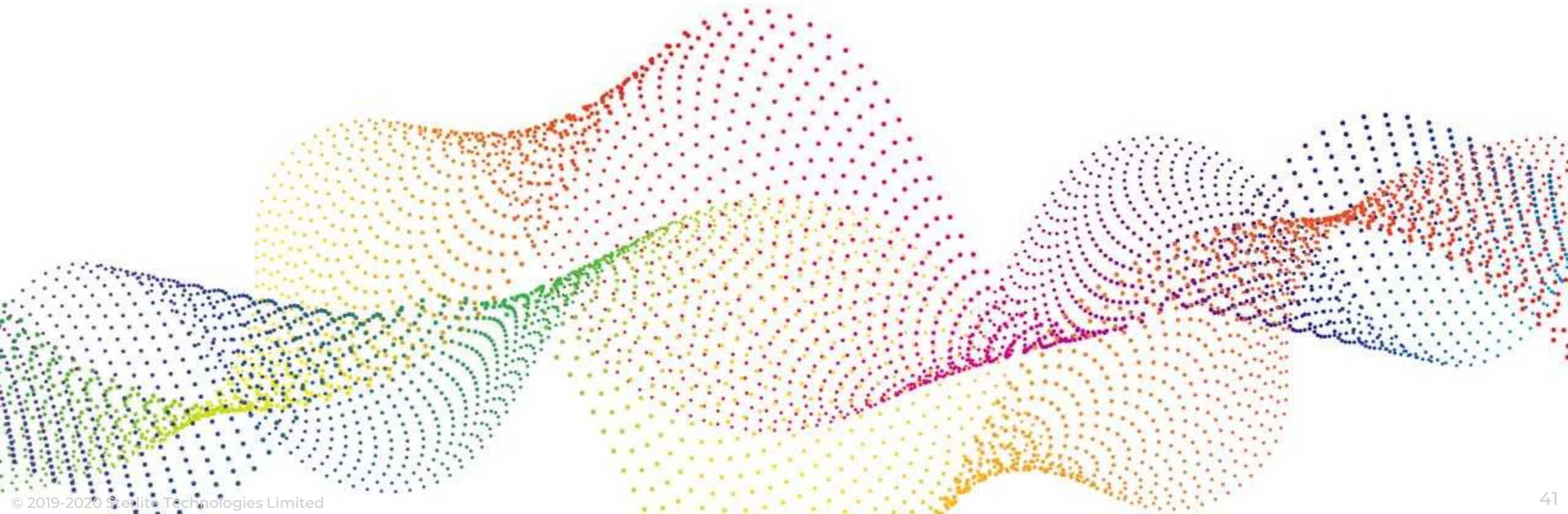
SaveRisk

1.9 million risk management companies on its platform, helping STL work with the right partners



Augmented Reality integration for effective training on installation processes of FTTx Mantra to increase its scalability

Innovating for the society





Get set green – Our commitment to sustainability

STL is home to India's first zero waste to landfill optical fibre cable plant, diverting almost 100% waste from landfill

STL GARV – Making rural India digital-ready

Rural-connectivity platform launched in three villages across Uttar Pradesh, Maharashtra and Telangana, bringing innovation where it matters

STL Academy – Skilling at the speed of light

STL Academy is 'skilling it' like never before. 1.5k youth certified, 15k in the works

STL GARV – Making rural India digital-ready

3 villages

across Uttar Pradesh, Maharashtra and Telangana states of India

Innovation where it matters

- Datacentre endpoint
- Speech to email conversion
- E-tutoring
- Telemedicine
- Swachh sense (Hygiene App)
- Smart surveillance & lighting



S.U.R.E. Packaging at STL

·Sustainability ·User-Friendly ·Reliable ·Efficient

5R

Approach

- Recycle
- Reuse
- Reduce
- Refuse
- Remove

Recycling 100% inbound packaging material*

*at OFC and SCB units

The STL logo consists of the letters 'STL' in a bold, white, sans-serif font. A small green leaf-like shape is positioned above the letter 'L'.

Saved

8000 trees

Reduced

5300 MT CO₂

We want to create value for STL, Customers and the Society through environmentally conscious initiatives

Education and Rural development initiatives

Virtual Classroom Jeewan Jyoti

Health Initiatives

Last mile access healthcare solution

Rural & Community Development

Water & sanitation swachh bharat

Women Empowerment Initiatives



Total Lives Impacted

830k+

We are **STLer!**



Great
Place
To
Work®

Certified

JUN 2019-MAY 2020

INDIA



STL

30+ Nationalities

All women team making
it one of the most
inclusive teams

3.1k+ Associates


STLer culture

When the great big come together, the world takes notice

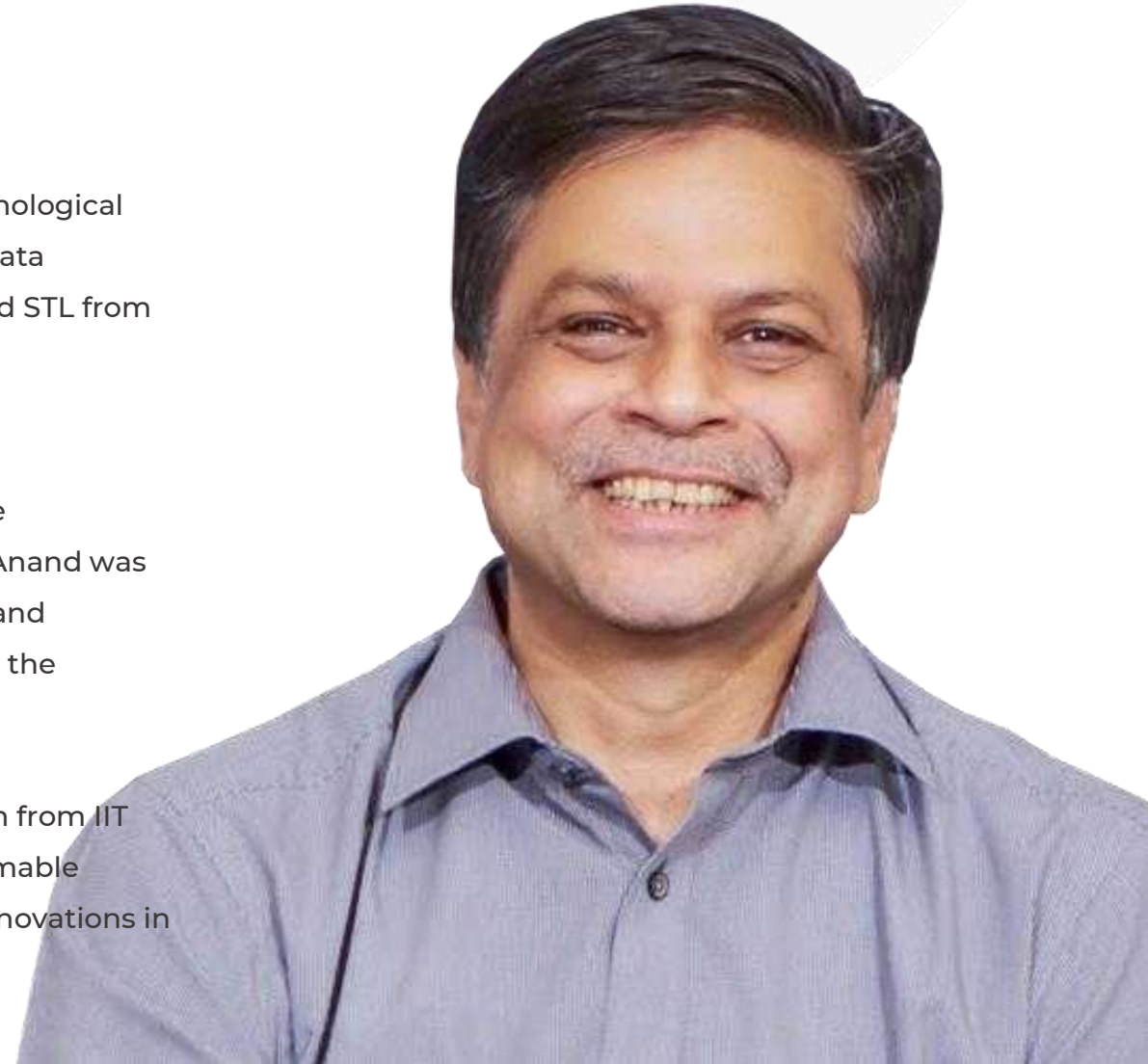
Dr. Anand Agarwal is the Group CEO of STL and is passionate about driving technological advancement to impact everyday lives. Recognising the exponential growth in data consumption and shifts in the global technology landscape, Anand has navigated STL from an optical connectivity company to a global leader in end-to-end data network solutions.

Anand is driving STL as an industry leading integrator of data networks with core capabilities in optical connectivity, radio engineering and networking software. Anand was honoured with the prestigious 'Broadband Infrastructure Leader Award' in 2016 and "Pathbreaker of the Year" in 2019 for transforming India's digital infrastructure at the Telecom Leadership Forum.

A PhD in Materials Engineering from Rensselaer Polytechnic Institute and B.Tech from IIT Kanpur, Anand is a hands-on technologist on advanced photonics and programmable networks. He is a firm believer in empowering and transforming lives through innovations in technology.

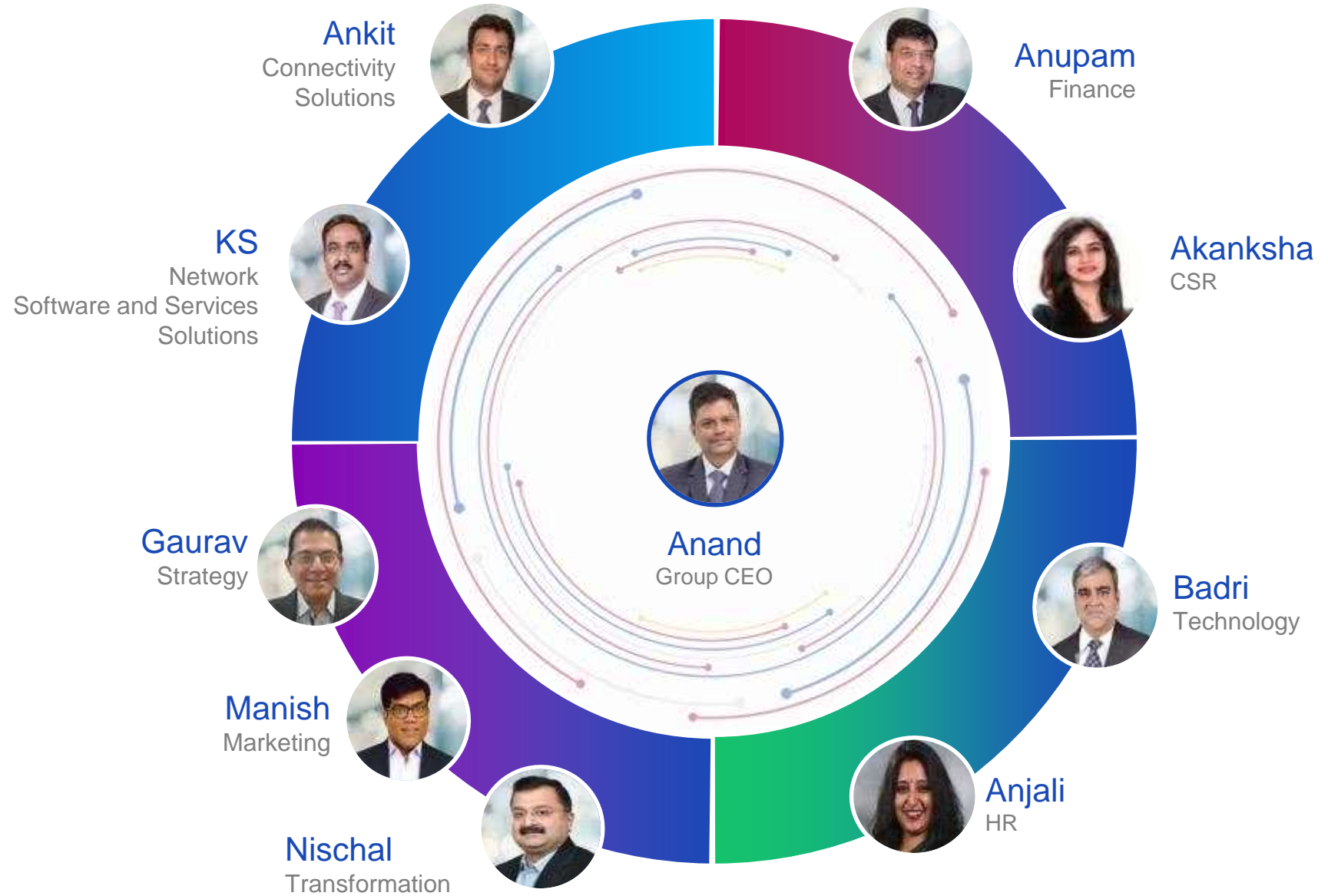
 [@anandagarwal2](#)

 [@anand1agarwal](#)





Led by an Executive Team with strong Vision



STU

STU

beyond tomorrow