

Annual Report
2020-21



Empowering a changing world

WITH PASSION AND INNOVATION

AXISCADES Technologies Limited
(formerly AXISCADES Engineering Technologies Limited)

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FY21 in numbers

₹ 5,328 million
Revenue

14.6%
EBITDA margin

₹ 196 million
Profit after tax
adjusted for
exceptional items

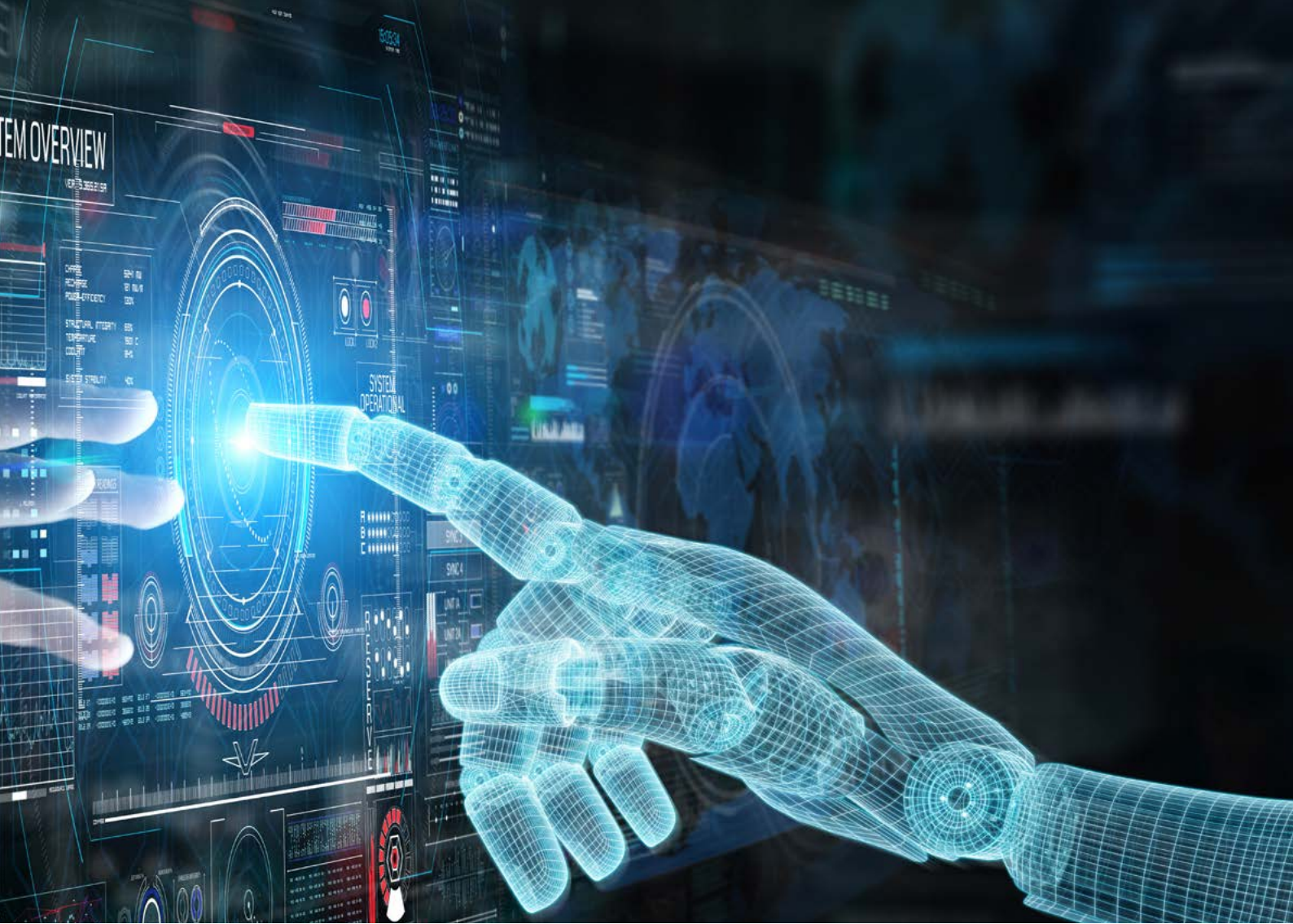
8
Offshore
Development Centres

1,750+
Highly skilled
engineers

15
Global Engineering
Centres

CORPORATE SNAPSHOT

AXISCADES is a holistic technology and engineering solutions provider, with a footprint across the entire product lifecycle management needs of global OEMs and core engineering firms. We possess a comprehensive understanding of the end-to-end processes, such as planning, design, prototyping and experience, supporting clients in their pursuit of operational excellence, better time to market and cost optimisation. Through the decades, we have perfected the science and technology of delivering traditional, virtual and digital engineering solutions that solve complex and multi-layered problems for our clients.



Empowering a changing world

Passion and innovation are central to our business, they underpin our strategy and the development of our products and services. Developing innovative solutions is a key part of the work we do to ensure we have a sustainable business that will continue to create value for our stakeholders.

Amidst a rapidly shifting engineering landscape, firms are increasingly intent on greater integration across their operational domains and investing in smart, connected and future-ready services that can transform the way they do business. Our technology priorities mirrors this changing business environment.

We have a broad portfolio across major industry verticals like air, defence, auto, heavy engineering, energy and more recently, healthcare and naval. We work with our customers and supply chain partners to continually evolve our products, operations and services. Our keen insight of clients' challenges helps us engage with them more meaningfully and tailor-make quality processes and solutions that add the most value.

We are dedicated to building our digital capabilities and advancing new technology throughout our business. We collaborate with academic and industry partners to develop and apply emergent technologies, including deploying Industry 4.0. By exploiting digitalisation, augmented reality, artificial intelligence and machine learning, we enable intelligent asset management and system efficiencies while reducing resource usage.

The future of manufacturing holds tremendous potential and we are well positioned to effectively utilise multi-domain capabilities to meet the changing needs of the market. Our primary focus remains to deliver sustainable, safe and productive solutions to our clients, drive operational efficiency, attract skilled employees, manage risks, support society and create shareholder value.

Chairman's address



For the fiscal year 2020-21, we clocked a total revenue of ₹5,238 million and maintained EBITDA margin at 14.6% despite a decline in revenue of 22% y-o-y. This was primarily due to a COVID-19-induced contraction in the Aerospace vertical. That said, in Q4FY21, we observed that growth momentum had revived across verticals – especially in Aerospace and Heavy Engineering where we delivered a growth of 7.4% and 9.4%, respectively, and increased traction in other verticals as well.

DEAR SHAREHOLDERS,

Let me start by wishing that this letter finds you and your loved ones in good health. I urge you to heed the necessary safety precautions and take utmost care of your physical and mental wellbeing.

FY21 was turbulent and challenging year in many ways. The COVID-19 pandemic was the event that defined the year, causing the sharpest decline in global GDP in recent history. The health, social and economic toll are still being felt by people all around the world. At an industry level and by extension, for AXISCADES too, the restrictions to contain the infection spread posed an enormous challenge. We acted swiftly and decisively to protect our people and the Company. Our crisis management teams coordinated many initiatives to minimise the disruption to our businesses. We were thus able to flexibly adapt our operations to fulfil the needs of our customers, safeguard the health of our employees and ensure reliable deliveries.

PERFORMANCE REVIEW

For the fiscal year 2020-21, we clocked a total revenue of ₹5,238 million and maintained EBITDA margin at 14.6% despite a decline in revenue of 22% y-o-y. This was primarily due to a COVID-19-induced contraction in the Aerospace vertical. That said, in Q4FY21, we observed that growth momentum had revived across verticals – especially in Aerospace and Heavy Engineering where we delivered a growth of 7.4% and 9.4%, respectively, and increased traction in other verticals as well. We were able to maintain our EBITDA margin at 14.6%; and our PAT adjusted for exceptional item stood at ₹196 million. We achieved a robust cash position of ₹848 million (₹ 146 million growth y-o-y).

Furthermore, we acquired 7 new clients in Automotive and Heavy Engineering; and ventured into newer domains such as transportation, naval and healthcare. We leveraged our Centres-of-Excellence to launch 3 innovative products in Healthcare: Elevated Skin Temperature Sensor, Social Distancing Application and Remote Operations Desk. We continued to work closely with our clients – expanding our service offerings to key accounts and in effect, strengthening our relationship with them. Top Engineering R&D (ER&D) players are increasingly spending more in digital engineering to improve manufacturing process and new product development.

During the year, we saw significant digital engineering spend across our customers, in tandem with a rise in our digital revenue. This proved to be a strong validation of the investments in digital that we've made in previous years.

All in all, AXISCADES delivered a resilient set of results in the face of challenges. My heartfelt gratitude goes to all of our colleagues, suppliers, customers and stakeholders who made this possible.

SEGMENT OUTLOOK

External reports indicate that ER&D spend will touch ~US\$2.2 trillion by 2025, digital engineering being the key driver. Digital ER&D is likely to grow at a CAGR of 19% in this time. Digital engineering spend in the Automotive segment alone is expected to touch US\$60 billion by 2025. Automotive firms are primarily investing in ADAS, Factory 4.0 and Electric Vehicles.

As a direct consequence of the mobility restrictions, commercial aviation firms experienced production stoppages and decelerating demand. Commercial travels have started across geographies, however this is lower compared to pre-covid level. We expect slow recovery in this segment.

Aerospace firms are already at lower production rate and any further cuts are unlikely. Earnings and cash flow are starting to benefit from last year's cost control measures. Due to this, we started seeing early signs of growth in Aerospace vertical Q4 FY21 onwards. However, it is still lower as compared with pre-COVID-19 average levels. We are working on new areas, such as passenger-to-freighter conversion and airworthiness recertification and activity related to business jet. We are also in discussion with other customers to offer digital services in Aerospace, by showcasing the digital work we have done for other key clients.

On the Defence side, we are well positioned to deliver in a big way in alignment with industry needs. The Government of India opening up the defence industry to the private sector, coupled with the Make-in-India push for defence modernisation, is a major opportunity for domestic private players. Demand over the next two years might remain constant to some extent since budgets for these projects had been allocated prior to the pandemic and many of the projects are critical to national defence.

IN CLOSING

As demonstrated by this year, AXISCADES is well designed for growth in the coming years, in spite of macro challenges. We expanded our portfolio of services to be closer to market needs. Our earlier investments in digital space have shown positive results and we will continue to invest in this space to multiply our offerings. In H2FY21, we witnessed greater traction from existing customers as well as client additions in some of our fast-growing verticals (like Automotive, Heavy Engineering and Energy). We are hopeful for a better FY22, particularly as mass vaccination drives are rolled out, restrictions are gradually relaxed and cross-border mobility resumes pace. This is expected to benefit the Aerospace vertical H2FY22 onwards.

I would like to end by reiterating that innovations have made AXISCADES the company it is today. I am convinced that our innovative power will continue to be an important success factor for profitable development. And this depends in equal measure on excellent R&D and highly qualified talent – which is exactly what we have at AXISCADES. In this exceptional year, the AXISCADES team demonstrated remarkable solidarity and passion; and worked tirelessly to find tailor-made solutions for our customers – whether working from home or in the plants. I want to thank all employees for their outstanding efforts.

While the operating environment will always present its set of challenges, we will ensure that our customers are always the central focus of all our activities. I appreciate your support as we pursue this goal and thank you for your trust in AXISCADES. Here's looking forward to a deeper collaboration.

Warm regards,

DAVID BRADLEY

Chairman & Non-Executive Director

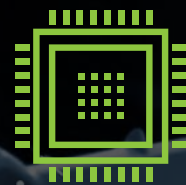
One AXISCADES – structured to deliver excellence

Constantly empowering our customer's businesses to grow through our holistic products and services often taking the complexity out of engineering value chains



MECHANICAL

- Design (Computer-Aided Design)
- Analysis (Computer-Aided Engineering)
- Product Lifecycle Management (PLM)/
Product Data Management (PDM)
- Manufacturing engineering
- Production support
- Technical publications
- In-service support
- Repair engineering
- Service extension



ELECTRONICS

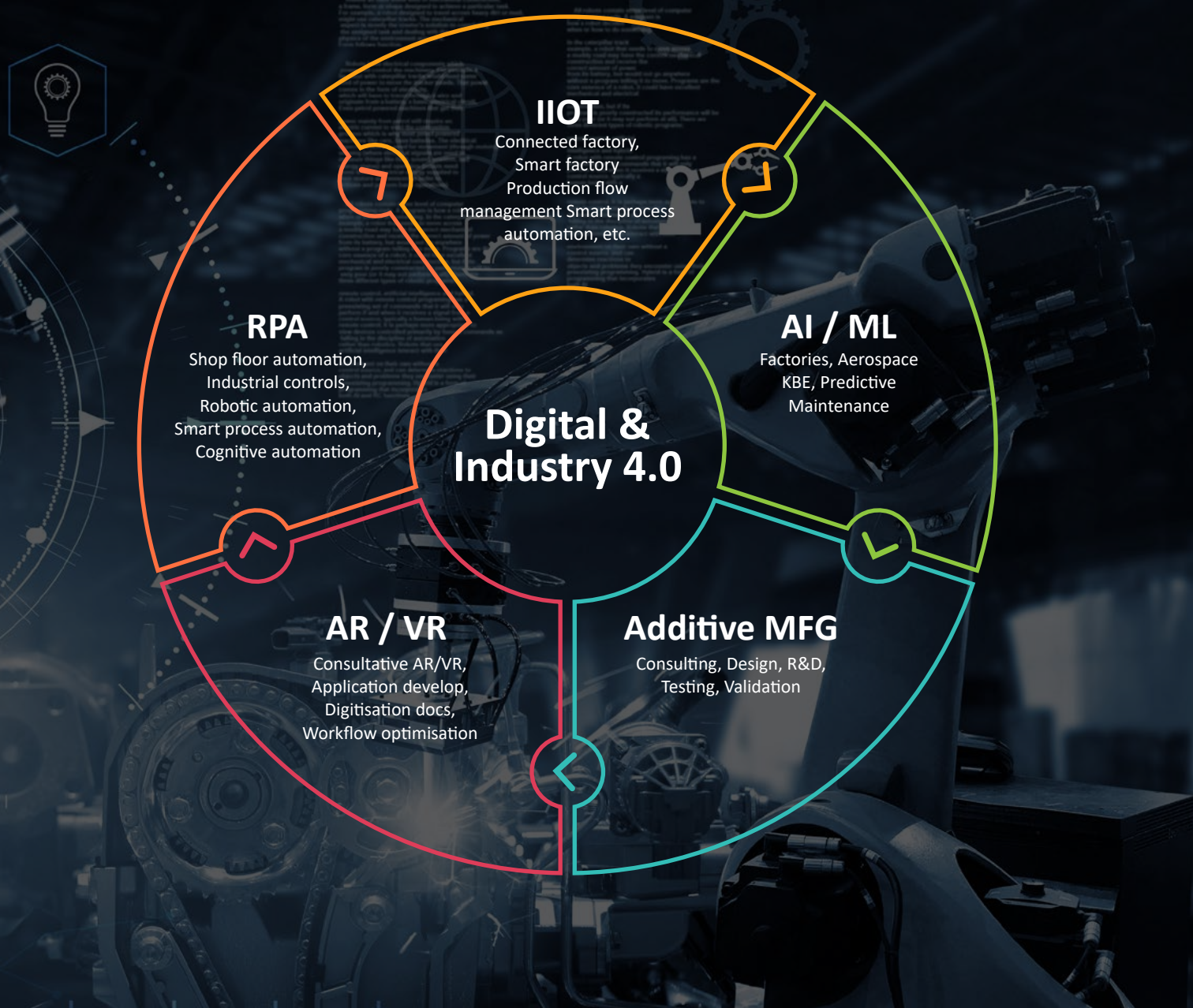
- Embedded electronics
- Hardware development
- Software development
- System integration
- Test solutions
- Integrated logistics support
- Maintenance
- Mid-life upgrade
- Obsolescence management



DIGITAL

- Industrial Internet of Things (Manufacturing
system integration)
- Industrial simulation
- Artificial intelligence/machine learning
(AI/ML) solutions
- Data analytics applications
- Additive manufacturing solutions
- Augmented/Virtual Reality (AR/VR) solutions
- Cloud and Big Data

Our differentiated approach to business in line with evolving market landscape - constantly changing our technological backbone to deliver business value across the engineering cycle – through highly integrated and intelligent system solutions



Transforming into an engine of growth

We are passionate about our engineering and the value we deliver to our clients by virtue of our expertise in our chosen domains of engineering and our ability to innovate constantly. It is a part of our ethos to enable success for our customers and create value for society and thereby grow profitably.

OUR PURPOSE



Vision

To be one of the world's most admired, trusted and capable engineering solutions company



Mission

As a customer-centric company that drives impactful innovation, AXISCADES is committed to delivering engineering excellence for a better future and does that through effective collaboration and partnerships built on integrity.



Values

- Customer centric
- Solution focused
- Responsibility in all relationships
- Impactful innovation
- Commit to excellence
- Make it happen

OUR STRATEGIC LEVERS

GEOGRAPHIC REACH

- Broaden sales capabilities to help acquire new customers and cross-sell to existing clients
- Widen footprint in key growth markets

CLIENTS & PRODUCTS

- Prioritise digital engineering solutions across verticals
- Strengthen IIoT, Industry 4.0, and future-focused smart and connected offerings across verticals
- Invest in digital technologies, such as AI and ML, in tandem with core engineering services
- Extend digital services to existing clients and add new clients in digital
- Expand Embedded and PLM service offerings
- Develop advance technology solutions in radar, electronic warfare, drones and anti-drone systems and simulators

BUSINESS & PROCESSES

- Automate the delivery process and utilise machine learning to improve internal efficiencies
- Imbibe green technologies and processes
- Continue to build synergistic partnerships with OEMs
- Encourage in-house innovation for targeted solutions
- Collaborate and consolidate the partner ecosystem, including academic institutions, industrial organisations, specialist firms and others

INDUSTRY VERTICALS

- Tap into the growth potential of the Energy and Automotive industry verticals
- Advance presence in Healthcare, Life science and Environment verticals
- Develop niche solutions for defense and homeland security industry
- Align with Atmanirbhar Bharat and Defence acquisition procedure security

Our diverse reach

Geographic diversity as well as business diversity, along with exposure to a mix of opportunities underpins and enhances our resilience throughout the business cycle.

North America

Europe and UK

China

India (HQ)

Peoria, Illinois, USA,
Columbus, Indiana USA
Tucson, Arizona, USA
SFO, California, USA
Montreal, Canada

Leicestershire, UK
Toulouse, France
Hamburg, Donauwörth,
Augsburg - Germany
Copenhagen, Denmark

Bangalore
Chennai
Hyderabad
Delhi / Noida

Wuxi City
Beijing

Industry verticals



AEROSPACE

- Primary and secondary structures
- Aircraft interiors
- Mechanical System Installation (MSI) and Electrical System Installation (ESI)
- Electrical harness
- Manufacturing engineering/concessions
- In-service support
- In-flight entertainment and display systems



AUTOMOTIVE

- Body-in-White (BIW), interior and exterior
- Engines, powertrain and chassis systems
- Telematics and Advanced Driver-Assistance System (ADAS), infotainment, active safety and Automotive Open System Architecture (AUTOSAR)
- Digital manufacturing and prototyping
- Cost optimisation and localisation



NAVAL

- Design and Development Hydraulic, Mechanical and Pneumatic equipment
- Advance Manufacturing Services
- Software Development
- Customer Services- ILS, Training Manual, Documentation, Translation etc.
- Maintenance services
- Equipment substitution
- Control & Test Services
- Special Process services
- Shipyard & Onboard Technical Assistance
- Shipyard & Onboard assembling and Commissioning services
- Offset Management



HEAVY ENGINEERING

- Off-highway vehicles
- Structures and cabin
- Engine and powertrain
- Electrical and hydraulic systems
- Machine control, safety systems and telematics



INDUSTRIAL ENGINEERING

- Digital factory
- Industrial automation
- Process planning and control
- Virtual manufacturing
- Enterprise integration
- Robotic solutions



DEFENCE SOLUTIONS

- Avionics
- Radar and electronic warfare systems
- Automated test equipment
- Simulators (computer based, fixed and motion based)
- Ground Support Equipment (GSE)/ Ground Handling Equipment (GHE)
- Unmanned Aerial Vehicle (UAV)/ Remotely Piloted Aircraft System (RPAS)
- System integration
- Offset management
- Manufacturing ecosystem