



## **Data Patterns ( India ) Limited**

**Investor Presentation**

**Q1FY24**

**August 2023**



Dependable  
Innovative  
Building  
a self reliant  
India  
Reliable  
Accurate

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# CMD's Comment on Q1FY24 Performance



**Mr. Srinivasagopalan  
Rangarajan**  
*Promoter, Chairman &  
Managing Director*

*"We are pleased to announce another strong quarter with impressive results. Our Revenue stood at Rs. 896.9 million, up 31% YoY, while our PAT for the quarter increased by 82% to Rs. 258.6 million. The order book also saw a significant growth, reaching Rs. 9,671.1 million whereas the order inflow stood at Rs.1,327 million up 2.9x YoY. I'm also happy to share that, out of Rs.500cr raised in QIP, we have started our product development endeavours in line with the offer document, for Radars, Communication Systems, Electronic Warfare and Satellite. The focus on product development will allow Data Patterns to address the growing 'Made in India' Defence opportunities"*

# Q1FY24 Highlights:

**Strong order book as on 30<sup>th</sup> June 2023 at Rs 9,671.1 mn**

**Revenue grew 31% YoY to Rs 896.9 mn  
EBITDA showed 31% growth at Rs 278.3 mn**

**Gross Margins at 62% and EBITDA Margins at 31%**

**Strong Balance Sheet; Net Debt Free Company**

**Return Ratios - RoE and RoCE at 19% and 21% TTM respectively  
without QIP funds**

**Started using QIP funds for new product developments in Radar, EW,  
Communication and satellite**

**Order inflow in Q1FY24 of Rs 1,327 mn, grew 2.9x YoY**

**PAT at Rs 258.2 mn, 82% increase YoY**

**Revenue CAGR: 36%; EBITDA CAGR: 61% over FY19-FY23**

**Cash, Bank and Investments– Rs 5603 mn**

## Growth Drivers:

- Created additional world class infrastructure to deliver complete systems
- Government policies for Make in India
- Investment in complete products through QIP Proceeds

# What We Look to Achieve in Next Two Years

- Targeting larger opportunities in Radar, EW, Communication Systems and Satellite business
- Expects to be a major participant for Rs20-30 bn worth of contracts in the next 3-4 years
- Efficient execution to promote operating leverage; Should drive strong EBITDA and PAT margins
- Exploring further opportunities in export market; Working in collaboration with domestic players

**Strong Topline Growth:  
25%+ CAGR**

**Sustainable High  
Margins: ~40%**

**Maintain Net Debt Free  
Status**

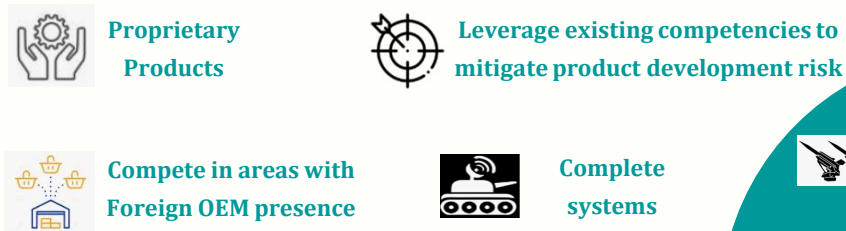
**Maintain Strong Order  
Pipeline**

***High Returns to Shareholders: ROE and RoCE - 20%+***

# Strategy for next phase of growth

## Model to Proprietary Product Development

### MOD Business



1

#### Larger TAM for Data Patterns

MOD tenders open to industry  
GOI committed to buy from Indian companies  
Increasing Indigenization

2

#### Revenue Scalability and Sustainability

Potential to bid for larger full systems contracts  
Re-use developed products for global expansion/ multiple programmes

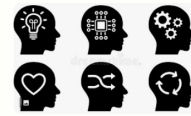
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#### Better Margins

Cost advantage given products developed in India

## Key Differentiators for Data Patterns

### Capabilities



- Leveraging existing competencies across target product categories with significant lead and vendor credentials
- Building Blocks in place for reuse across products and to crunch timelines and costs
- Focus on Key product categories with significant presence i.e Nano/Micro Satellites Radars, ESM and Communication systems

### Alternative to foreign OEM products

- Cost advantage compared to players who may have to collaborate with foreign OEMs
- Better pricing can lead to better win rates
- Products developed in India - better PWIN

### Make in India Advantage



# Focus on Key Product verticals

DATA PATTERNS

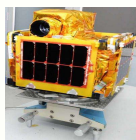
1

## Satellite

- Designed and launched complete satellite in India
- Capabilities to design payloads like ESM, Imaging (RF and ESM), other remote sensing, others
- Comprehensive exposure to Ground stations including Radars and Command control, high speed communication links, etc
- Implemented capabilities for large satellites

- Large market for Defence and LEO satellites (Domestic as well as International)
- Focus on Micro Satellites
- Being Made in India – its cost effective

### Existing Successful development



Nano Satellite



Antenna Tower



Satellite Integrated Testing



Satellite Internal View



Thapsat Satellite

2

## Radars

- Designed building blocks to complete radars systems in India
- Re-use already developed building blocks to meet timelines
- Building Blocks in Signal Processing, Antenna, Transmit/Receive modules, etc.
- VHF, S, C and X Band, Gimbal, algorithms, Radar display, consoles, etc

- Focus on Fire Control Radars, X-Band Radars and smaller Radars for UAVs
- Cost competitive with in-house IP
- Export Potential

### Existing Successful development



Single Board Computer-Next Gen



Wide Band Digital Receiver



DTRM



Antenna PCB



Antenna Assembly fixture



# Focus on Key Product verticals

DATA PATTERNS

3

## Electronic Surveillance & Monitoring

### Product

### Demonstrated Capabilities

### Potential Opportunity

- Developed state of the art ESM Receivers from 1MHz to 40GHz
- Both COMINT and ELINT including DF can be used in
  - Truck Mounted Systems / UAV Based ESM Systems
  - POD based jammers / Comm Jammers / Stand Off Jammers

- Potential large market with future tenders
- Requirement across Army, Air Force and Navy

### Existing Successful development



Radar Warning Receiver



ELINT DF System



V/U/SHF Monitoring Receiver



VHF/UHF/SHF Receiver Processor Exciter



5 Channel Search Receiver

4

## Communication Systems

- Developed SDR Platform for
  - Fighter Aircrafts
  - Radio Relay for Airborne Platforms/UAVs
  - Radio Relays

- Military Radars, Radio Relays, etc. are being procured under emergency Fast Track procurement
- Large volume requirements
- Requirement across Army, Navy and Air Force

### Existing Successful development



Communication / Data Link



Programmable Radio Hardware Platform Type I & II



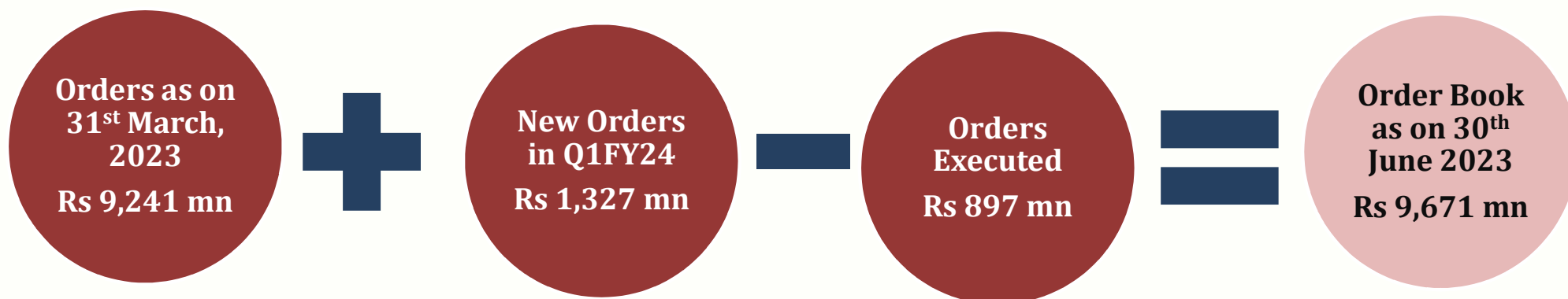
Radio Relay



## Order Book Buildup in Q1FY24

DATA PATTERNS

*Order Book as on date is Rs 9,671 mn*



**Current order book Rs. 10,657 mn including the orders finalised in Q2FY24**

***We are participating in large value tenders with MoD under Make 1 and 2 categories.***

## Q1FY24: Financial Performance

Particulars (Rs. Mn)	Q1FY24	Q1FY23	Q4FY23	FY23	FY22
Revenue from Operations	897	684	1,851	4,534	3,108
Gross Profit	558	442	1,070	2,825	2,247
<i>Gross Profit Margin (%)</i>	<i>62.2%</i>	<i>65%</i>	<i>58.0%</i>	<i>62%</i>	<i>72.3%</i>
EBITDA	278	213	733	1,718	1,409
<i>EBITDA Margin (%)</i>	<i>31.0%</i>	<i>31.1%</i>	<i>40%</i>	<i>38%</i>	<i>45.3%</i>
Depreciation / Amortization	28	20	22	84	66
EBIT	250	193	711	1,634	1,343
<i>EBIT Margin (%)</i>	<i>28%</i>	<i>28.2%</i>	<i>38%</i>	<i>36%</i>	<i>43.2%</i>
Other Income	116	17	38	92	40
Finance Cost	17	16	28	77	110
PBT	349	194	721	1,648	1,273
Tax expense	91	52	168	408	334
Profit(Loss)for the period	258	142	554	1,240	939
<i>PAT Margin (%)</i>	<i>28.8%</i>	<i>20.8%</i>	<i>30%</i>	<i>27%</i>	<i>30.2%</i>
EPS (Rs)	4.6	2.7	10.49	23.80	19.5

# Revenue: Increased 31% in Q1FY24

## *Revenue – Q1FY24 and FY23*



# Diversified Revenue Profile

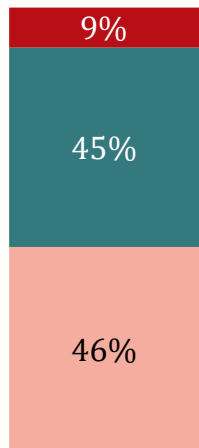
DATA PATTERNS

*Revenue growth across all the three categories*

Revenue in INR mn

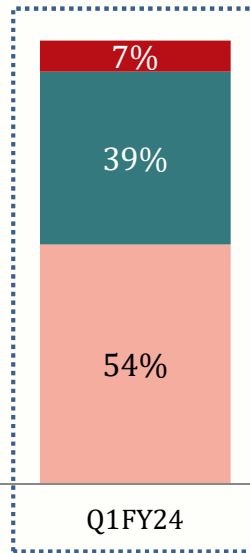
■ Service ■ Development ■ Production

Rs 684 mn



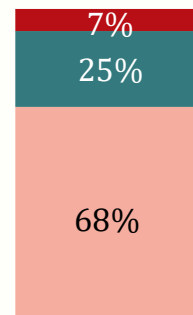
Q1FY23

Rs 897 mn



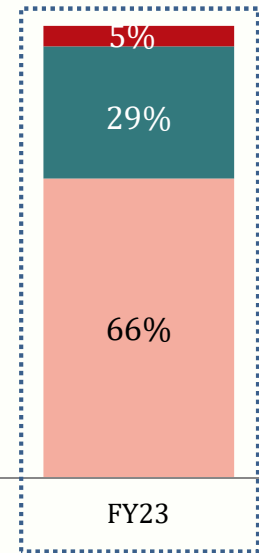
Q1FY24

Rs 3,108 mn



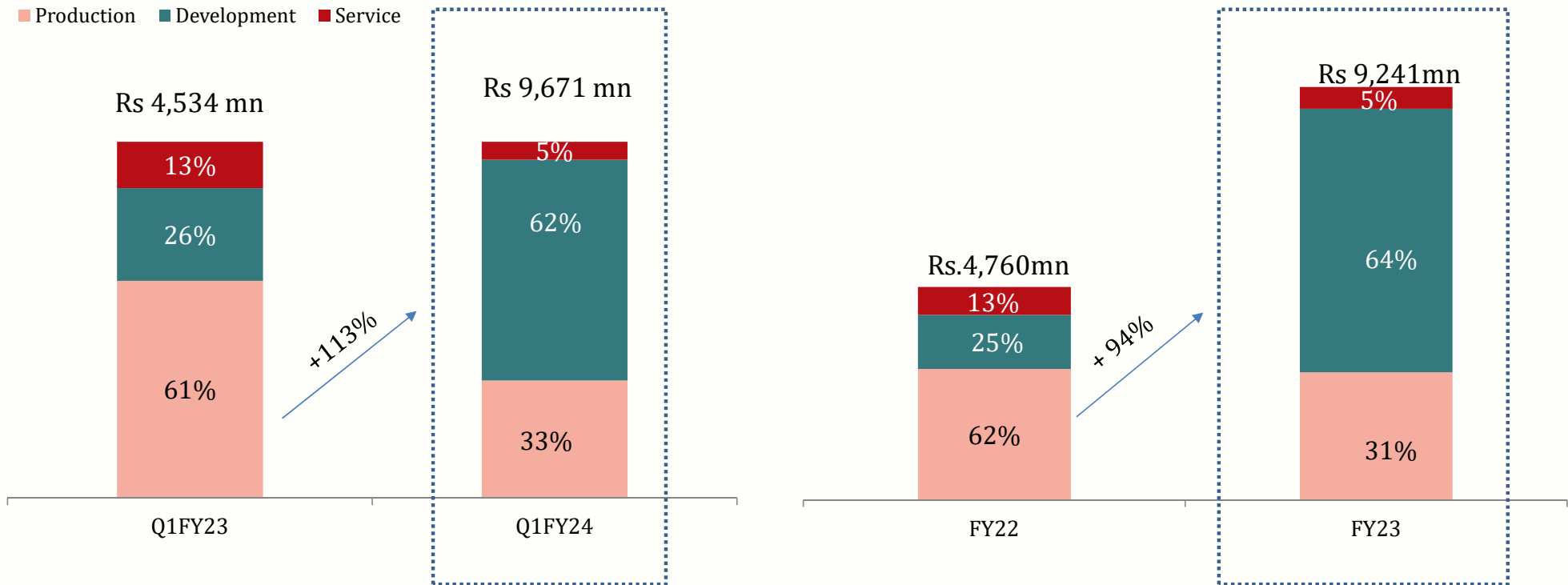
FY22

Rs 4,534 mn



FY23

# Order Book grew Exponentially



- Developmental contracts/order book translates to strong production revenues
- Company is focussing on growth driver for medium and long term by taking several development contracts.

# Q1FY24: Revenue Breakup

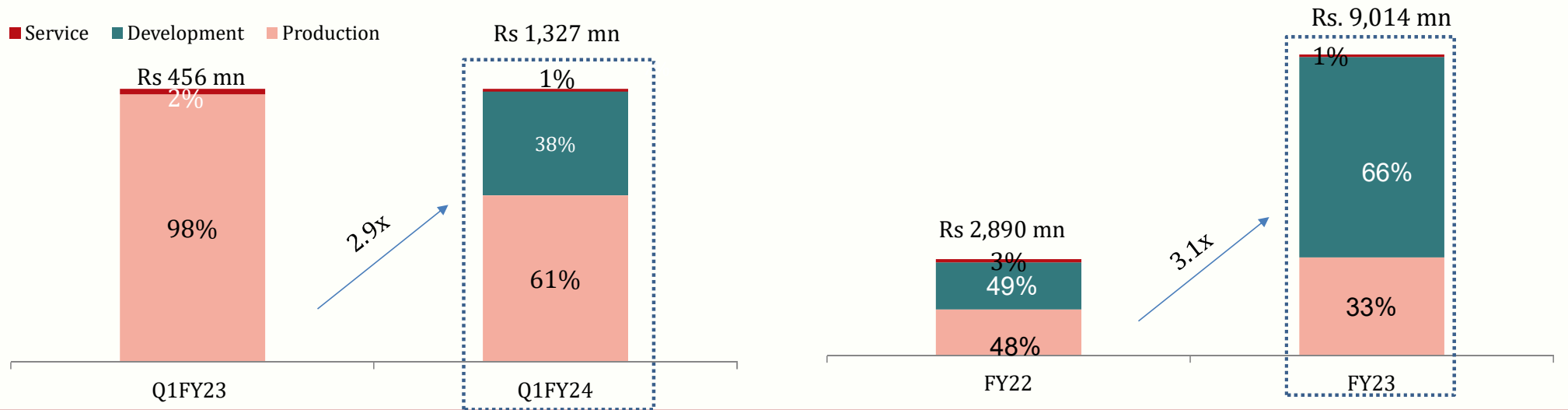
DATA PATTERNS

Product	Rs mn
ATE	169
AVIONICS	49
EW	71
Radar	547
AMC/Service	60
<b>Total</b>	<b>897</b>

Customer	Rs mn
BEL	3
Brahmos	105
DoS	68
DRDO	305
Export	124
HAL	7
MoD	282
Others	2
<b>Total</b>	<b>897</b>

# Strong Order Inflow

## Order Inflows – Q1FY24 and FY23



### Major order received in Q1FY24

Product	Customer	Order Type	Value (Rs mn)
EW	DRDO	Development	362
RADAR	Private customer	Production	357
RADAR	Export	Production	327
EW	DRDO	Development	137
Under water	DRDO	Production	8
Service	DoS	Service	7

### Major order received in FY23

Product	Customer	Order Type	Value (Rs mn)
Radar	DRDO	Development	4,489
Avionics	HAL	Production	737
EW	DRDO	Development	530
Tank	DRDO	Development	345
FCS	Brahmos	Production	400

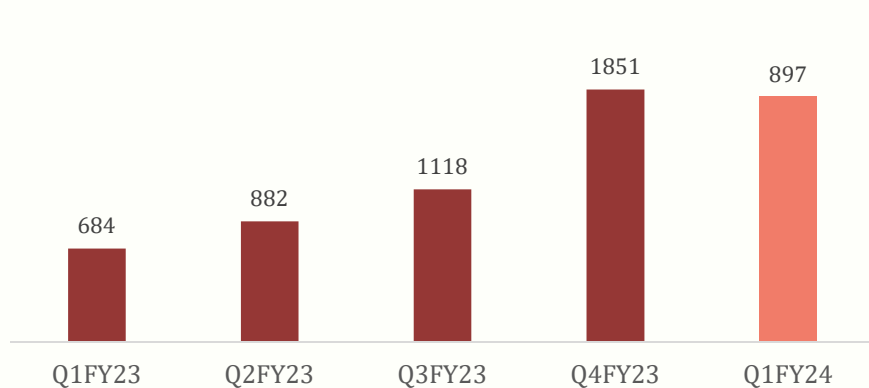
Q1FY24 Earnings Presentation



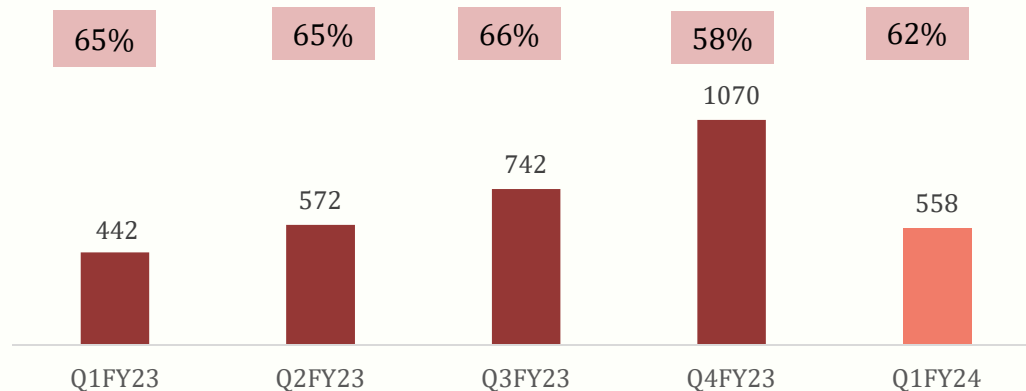
# Robust Performance : Supported by Strong Financials

DATA PATTERNS

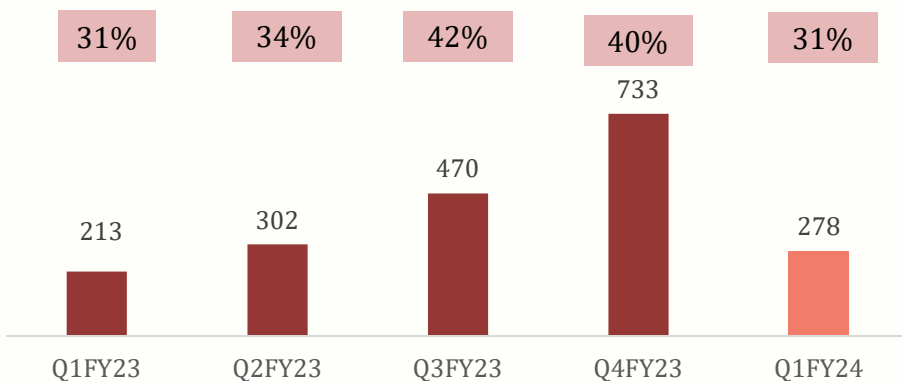
Revenue (INR Mn)



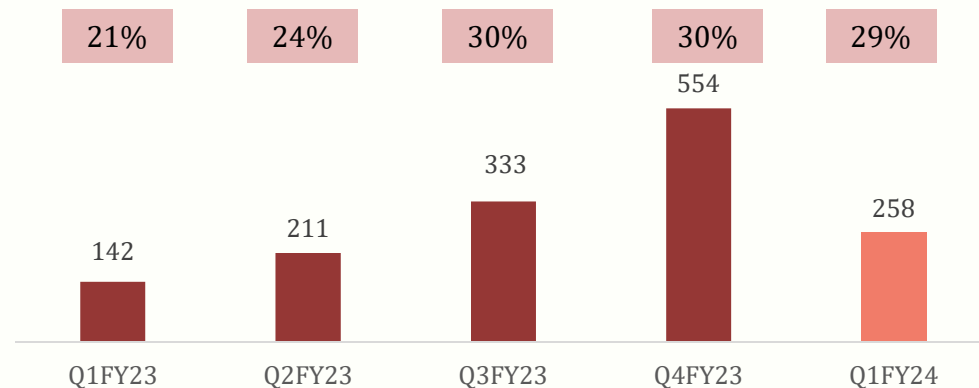
Gross Profits (INR Mn) and Margins (%)



EBITDA (INR Mn) and Margins (%)



Net Profit (INR Mn) and Margins (%)



# Investment in Business

DATA PATTERNS

## Investment in Our People



- ✓ We hired 124+ staff in Q1FY24
- ✓ Plans to hire 100 more engineers in the next year

## Investment in Facility



- ✓ Spent Rs 44 Cr on new facility
- ✓ The facility is operational from March 2023 onwards

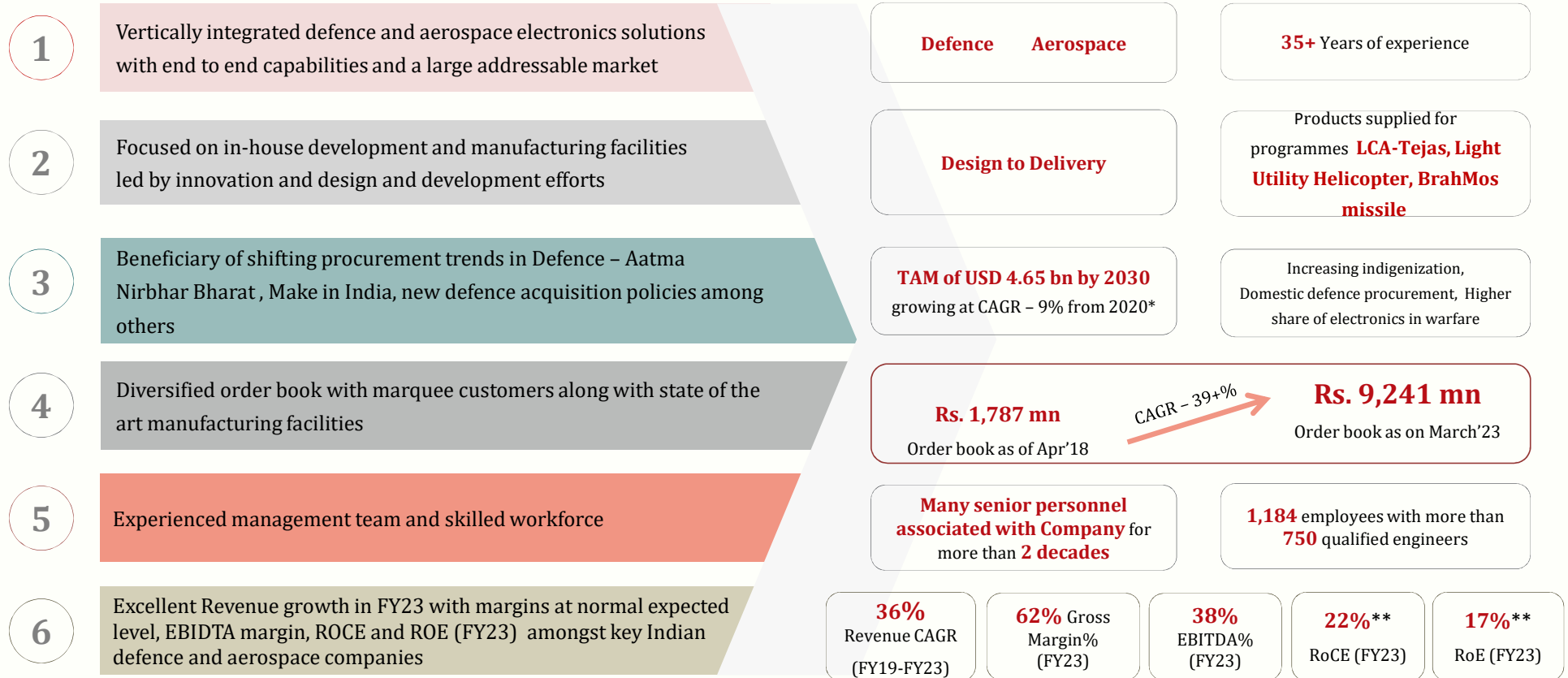
## Investment in Technology



- ✓ Successfully completed site acceptance test of 5 Precision Approach Radar.
- ✓ Nominated as Development and Production Partner for Dornier upgrade
- ✓ Actively pursuing new technology development with QIP Proceeds

# Data Patterns – One of the fastest growing companies in the Defence and Aerospace Electronics sector in India...

Among the few vertically integrated defence and aerospace electronics solutions providers catering to the indigenously developed defence products industry

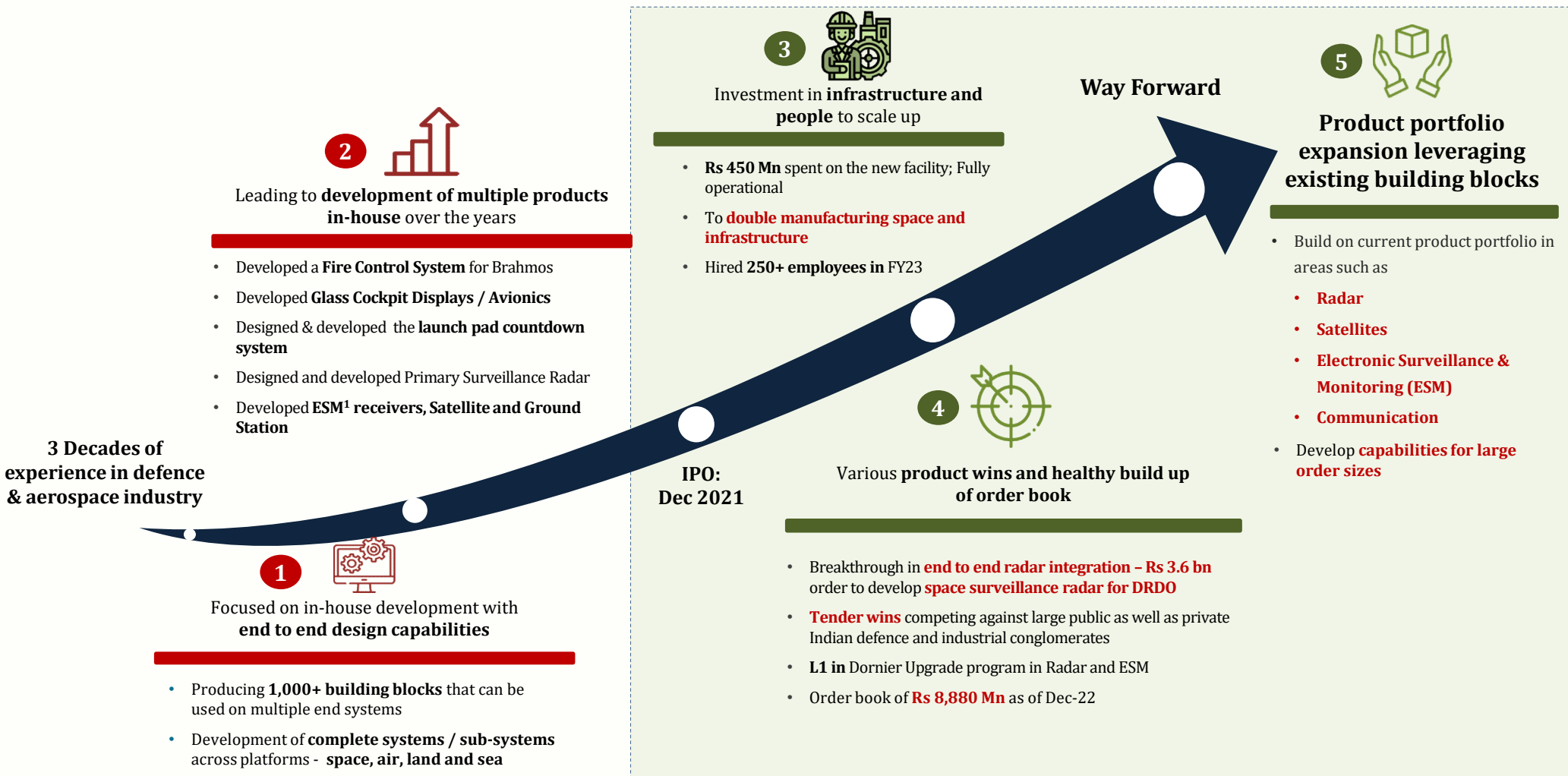


**One of the fastest growing companies in the Defence and Aerospace Electronics sector in India**

\*addition of market size of specific industries from the DRHP

\*\* Without considering QIP funds raised in March, 2023

# Evolving as a product company with a strong lineage



# Competencies built over the past 30+ years

DATA PATTERNS

## Reusable building blocks

**Produces 1,000+ building blocks that can be used on multiple end systems in defence and aerospace**



Building blocks have laid the foundation of own products



Setup the complete system from building blocks, designed in-house with IP



Spreading out the development costs over multiple programmes



COTS Components are fast becoming the building blocks of defence equipment

## End-to-end capabilities

**Among the few Indian company having design capabilities across the entire spectrum of strategic aerospace and defence electronics solutions<sup>1</sup>**



In-house  
Design to  
Delivery

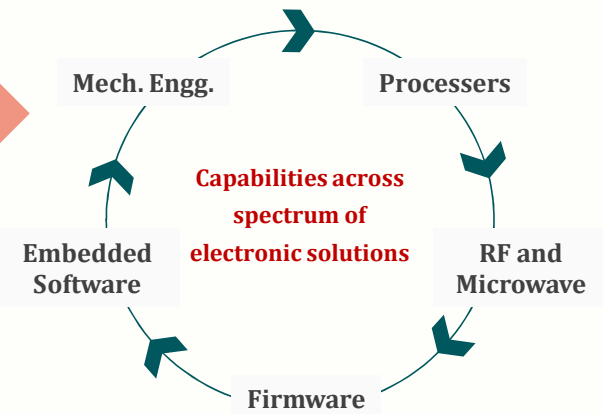


Complete  
systems / sub-  
systems



Across platforms  
– space, air, land  
and sea

**Capabilities  
built over 3  
decades**

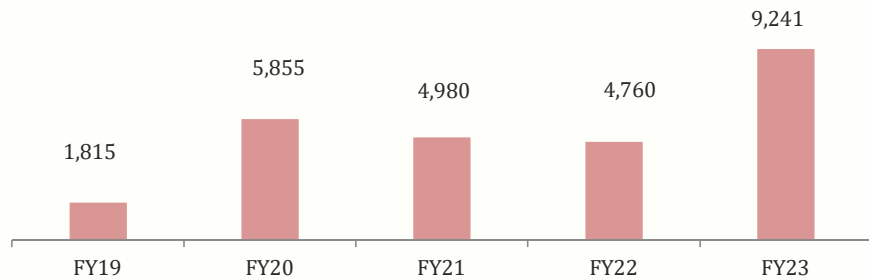


1.. Basis F&S report on "Defence and Space Market" dated 29 November 2021 as included in the RHP

# With a Consistent Track Record of Profitable Growth

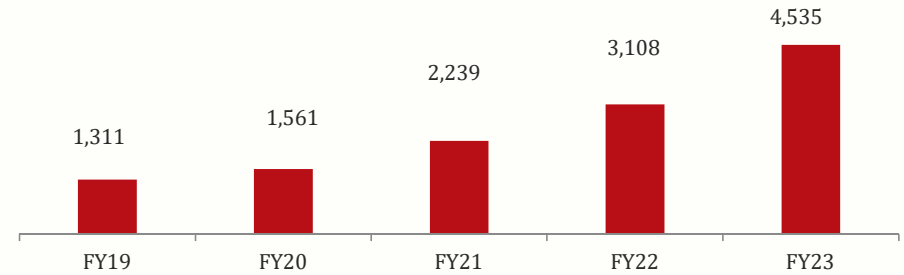
39%+~ % growth CAGR FY19-FY23

Order Book



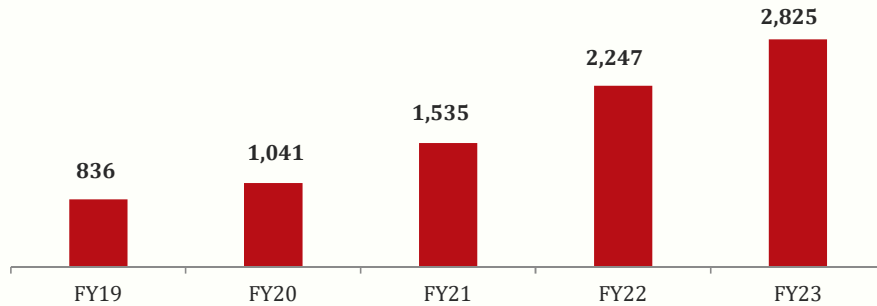
~ 36% Revenue CAGR from FY19-FY23

Revenue from operations



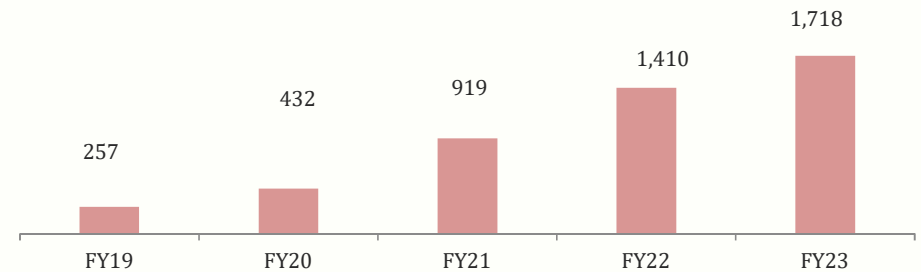
High Profitability

Gross Profit



~ 61% EBITDA CAGR from FY19-FY22

EBITDA

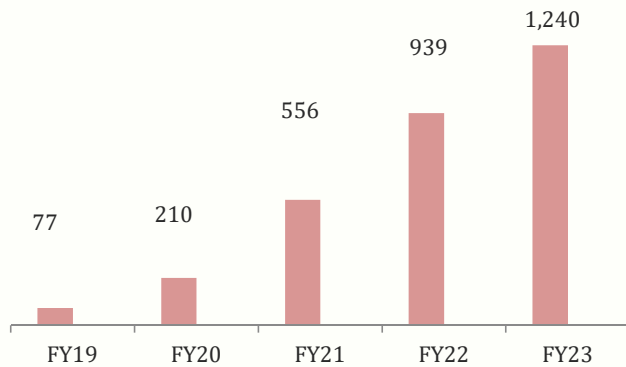


# Growing Profitability

DATA PATTERNS

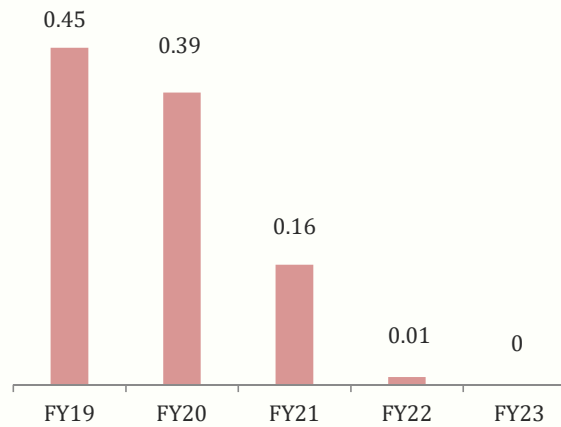
## Improving PAT

Rs mn



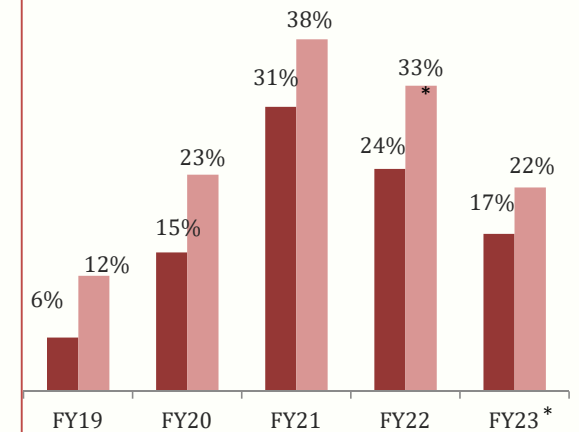
## Lower debt levels/ leverage

### Debt-Equity ratio



## Improving ROE and ROCE

■ ROE ■ ROCE



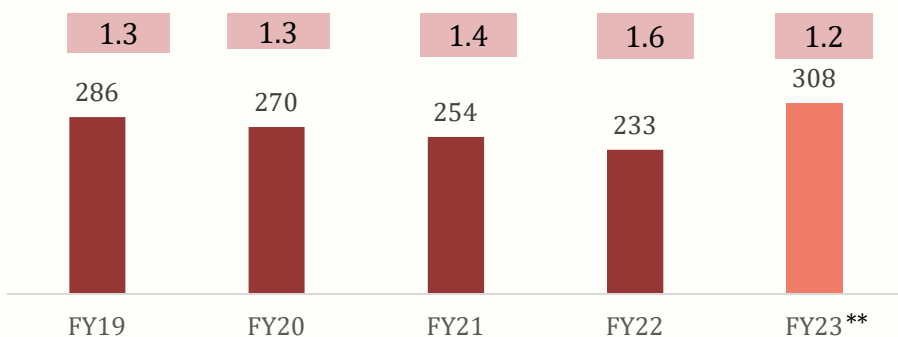
\*Without considering QIP funds raised in March, 2023



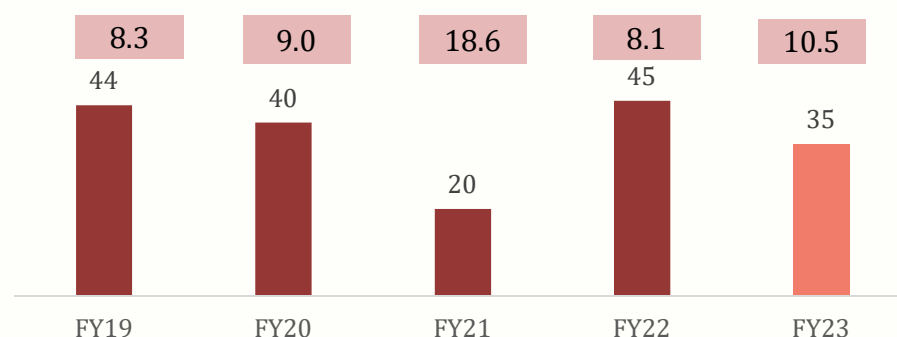
# Well Managed Working Capital

DATA PATTERNS

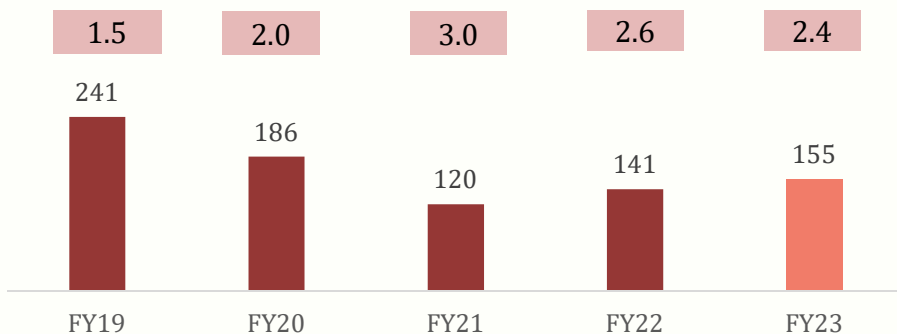
## Debtor Days and T/O Ratio



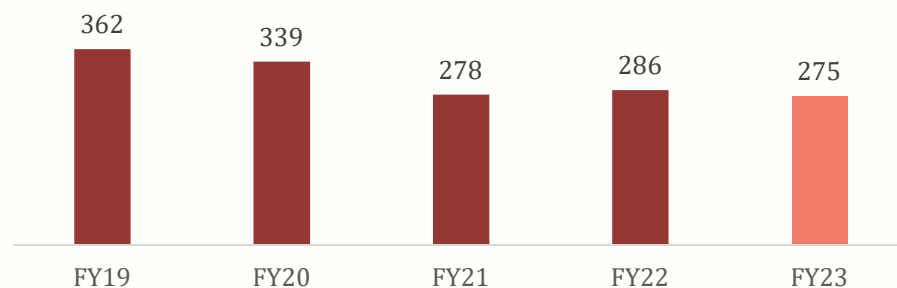
## Creditor Days and T/O Ratio



## Inventory Days and T/O Ratio



## Cash Conversion Cycle\*



\*Cash conversion days is after adjusting advance received from customers

\*\*Company has realized Rs. 1,126 Mn in Q1FY24 out of March receivables

# Through Well-Invested and State of the Art Manufacturing Facilities

~ 5.75 Acres

Of land in Chennai, SIPCOT area

~ 200,000 sq. ft

Aggregate of built up area of manufacturing facility

~2.81 acres

Land for proposed expansion



## Environmental Certification

- JSS55555

- MIL-STD-461

- MIL-STD-810 including for Highly Accelerated Life Test / Highly accelerated stress screening.

## Key features of manufacturing facility

- ✓ 100,000 class clean room
- ✓ Electronic assembly facility
- ✓ BGA repair work station with display
- ✓ Manual soldering certified to Space grade standards
- ✓ EMS assembly capacity of 600 boards per day
- ✓ Capability to handle complex boards with 22 layer, 6k components and 21k solder points
- ✓ Dedicated 70 work stations for testing modules and small systems
- ✓ Harness preparation of 2k points per day
- ✓ 20 Dedicated Mechanical assembly stations to assemble small and large systems

and various others...

## Our systems and processes are subject to periodic audit by customer such as

- ✓ Indian Government Space Organization
- ✓ Hindustan Aeronautics Limited (HAL)
- ✓ Other Government departments

## Manufacturing facility at Chennai, India



### Expansion

### Existing Facility Enhancement

- Large Systems Integration Hangar
- Complete Radar Integration
- Electronic Warfare Vehicle Integration
- Additional Test Facility
- Augmented Environmental Test Infrastructure

- Augmented Design & Development Facility
- Additional Space For Design and Development Resources
- Clean Room for Satellite Integration
- Additional EMS Line
- Multi Ton material handling



EMS Line
























Multizone Reflow Oven



X ray inspection system

# Diverse Product Offering

Category	Select Product offerings	Category	Select Product offerings
<b>Commercial off the shelf (COTS)</b> 	<p>COTS modules designed in context of reusable building blocks for building Military Electronics systems with a quick turnaround time</p> <div>    </div> <p>VPX Multi core SBC      VPX Zynq MPSoC based Quad Core      High Density DIU</p>	<b>BrahMos Programme</b> 	<ul style="list-style-type: none"> <li>Fire control systems</li> <li>Mobile autonomous launcher</li> <li>Airborne launcher and</li> <li>Other electronic systems</li> </ul> <div>   </div> <p>Air Version Launcher for Brahmos Sukhoi-30      Missile Checkout System</p>
<b>Avionics</b> 	<p>Avionics displays used on :</p> <ul style="list-style-type: none"> <li>Light Combat Aircraft ("LCA"),</li> <li>Intermediate Jet Trainers</li> <li>Light Utility Helicopters ("LUH")</li> </ul> <p>Light Utility Helicopter Cockpit display</p> <div>  </div>	<b>Electronic Warfare</b> 	<ul style="list-style-type: none"> <li>Surveillance and intelligence gathering ("SIGINT")</li> <li>Further divided into COMINT and ELINT</li> </ul> <div>   </div> <p>Digital Direction Finder      Radar Warning Receiver</p> <p>Airborne Radar Warning Receiver</p> <div>  </div>
<b>Communications, ATEs and Satellites</b> 	<ul style="list-style-type: none"> <li>Underwater electronics / Communications / Other Systems</li> <li>Automated Test Equipment (ATE)</li> <li>Small and Nano Satellites</li> </ul> <div>   </div> <p>Oceanography Product      Automated Test equipment for INS Shikra</p>	<b>Radars</b> 	<p>Surveillance radars      Weather radars      Coastal Surveillance Radar</p> <div>     </div>

# Over Last Three Decades

2021



Launch pad  
countdown  
system



Fixed Wing Cockpit Displays



TERLS Tracking Radar



C-Band Tracking Radar



Wind Profile  
Radar



Micro Satellite Designed wide open **RWR and ELINT** for airborne platforms

- Initiated expansion of manufacturing facility with **doubling of available floor area**
- Building of capacity to handle **large and heavy equipment and integration** of large radars and mobile EW systems, satellite integration facility



Expanding capacity

Designed and developed complete Radar Capability

- Data Patterns has a long history of association with India Space Organization. Data Patterns built a Nano Satellite which was deployed in 2017.
- Developed **EW receivers, Satellite and Ground Station**



Wideband Fast  
Scan receiver



Real Time  
Monitoring Receiver



V/UHF  
Monitoring  
Receiver



V/UHF Search  
Receiver



Precision  
Approach Radar



Coastal  
Surveillance Radar  
(Dept. of Space)



RF & Microwave  
Products

Developed **Glass Cockpit Displays / Avionics**

- Upgradation of **Tracking Radars**
- Developed **RF and Microwave capabilities** allow entry to building complete systems

- Developed a **Fire Control System** for Brahmos
- Designed & developed the **launch pad countdown system**



Fire control  
system for the  
BrahMos

# A De-Risked Business Model

DATA PATTERNS

## 1 Developmental Contracts

DRDO

Defence PSU

Projects leads to Production / Repeat requirements  
Programs leads to Annuity requirements

## 5 Exports / Offsets

Available  
Products /  
Systems

Radars, Electronic Warfare, Fire  
control systems, Avionics,  
Missile Seekers,  
Communications, Small satellites

## 4 Civilian Requirements

Satellites and  
Wind profile  
radars

- Ability to build nano satellites
- Wind profile radar similar to the radar developed by our company is now required by government meteorological department in the civilian space

## 2 MoD Tenders

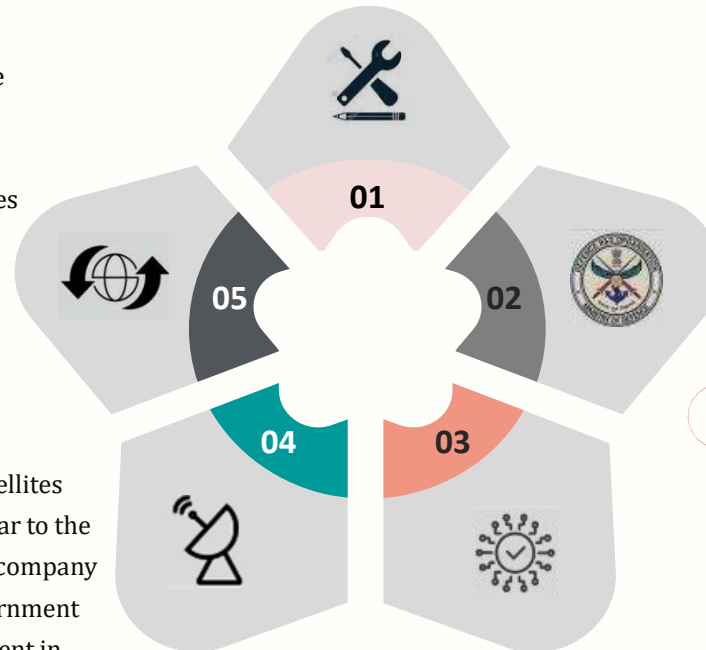
Available Products /  
Systems  
Partnership with  
OEM

Requirements is  
for large  
numbers and  
longer timeframe

## 3 Indian Defence Eco-system

Platform /  
Weapon System  
Development

- Develop Sensors, Electronics, Avionics
  - In-house
  - In partnership with OEM



# Progress around Defence modernization programmes



## Dharashakti programme

- Received single vendor orders from DLRL for development and supply of all of the COMINT / ELINT search receivers, Direction Finder & Monitoring / Search receivers.
- In a position to be an OEM for the entire receiver systems



## Radar Warning Receivers / ESM

- Part of the Radar Warning Receivers / ESM for the Airborne Early Warning System ("AEW &C") to DLRL which has been fitted on the Embraer early warning radar developed by Centre for Air Borne System ("CABS")



## MI 17 Upgrades, Dornier Upgrades, Aerostat upgrades,

- Expertise gained in the Dharashakti project would also position to cater for airborne COMINT and ELINT equipment for various upgrades of any new rotary wing programmes



## Next Gen completely wide open for LCA Mk IA and Sukhoi 30 platforms

- Likely to deliver Next Gen completely wide open for LCA Mk IA and Sukhoi 30 platforms subject to flight testing.
- After flight testing, these can be fitted on the LCA MK IA on order as well as the Sukhoi 30 upgrades, attack helicopters, etc.



## Airborne surveillance radar

- Has delivered an airborne surveillance radar (all of the hardware) to LRDE (Testing completed) and will be likely inducted in Navy's Dornier upgrade and new helicopter programmes



## Arudhra Radar

- Expected to supply multiple units of AGRU/ Arudhra radar
- Likely to generate revenues in the next few years based on the requirement projection of IAF



## Ashwini LLTR

- Partner in development of these radars as a single vendor incl. TR modules, AGRU, signal processor, etc
- Expected to realise revenue in the next few years.



## Light weight ESM requirements

- ESM capability will help in supplying products for Light weight ESM products which have a heavy requirement in mountainous borders as they are not adequately covered



# Well-Positioned to benefit from Make in India Opportunity

Focused on designing & developing indigenized products making it a beneficiary of India's "AtmaNirbhar" defence structural reforms



**Focused on designing and building own products** across the manufacturing value chain to developing products and sub-systems



Well positioned to rapidly commercialise or **scale-up a number of existing products or building blocks to end systems** or complete solutions



Concentrate on building complete systems from the building blocks and sub-systems already developed, provides a **higher value addition while distributing development costs**

## Examples:



**Wind profile radar built for Cochin University of Science and Technology** is the world's first 205MHz radar – complete in house development



Using the experience of working with DRDO and development of wind profile radar, the company successfully bid and won a contract of Rs 380Cr from **Ministry of Defence for nine precision approach radars** for Navy and Airforce which are currently at delivery stage



**Developed and deployed our first Nano Satellite in 2017**



Subsequently received contracts to build 2 more Nano Satellites



**Developed and supplied Military COTS type processor for DRDO**



Subsequently redeployed for other projects by various DRDO laboratories including in naval applications in ships & helicopters

## Defence Modernization Program



Arudhra Radar



Light weight ESM requirements



Ashwini LLTR



Airborne surveillance radar



Dharashakti programme



Radar Warning Receivers



# Driven by Innovation Focused Business Model

Focused on in-house development led by innovation and design and development efforts



**Building complete systems from the building blocks** and sub-systems already developed



**Partner with customers through the life cycle of a product**, from conception till deployment and thereafter



**450+ engineers**, most of whom have served in design and development departments

Track record of utilizing pre-developed building blocks and sub-systems in the development of complete systems

Present programmes with building blocks Designed & Developed by Data Patterns...

... along with "Future Ready" products already designed and developed by the company

- Military grade processor modules,
- Cockpit displays,
- Actuator controllers for missiles and torpedoes,
- Flight control computers,
- Digital receivers and
- Up/Down converters for
- Airborne phased array radar
- Frequency hopping radio relays
- Next generation EW products
- Integrated EW solution for national security



## Key Products manufactured and delivered by Data Patterns

S.No	Product(s)	Details
1	Monopulse RF Seeker	Delivered prototypes to DRDO
2	X-Band Doppler Weather Radar	Prototype installed in Chennai for meteorology department
3	205MHz Wind Profile Radar for CUSAT	Installed at Cochin for a government owned university
4	Radar for Naval Utility Helicopter	Prototype delivered to LRDE
5	A Next-Generation Software Defined Radio for fighter aircrafts	Prototype developed for DEAL
6	A Next-Generation Radar Warning Receiver for fighter aircrafts	Prototype developed for DLRL
7	A Next-Generation COMINT	Prototype developed for DLRL
8	Precision Approach Radar	Delivered to AF
9	Nano Satellite	Being delivered to industry
10	Power PC Card	190 nos delivered to HAL
11	WBLRU	Delivered to DRDO

# Servicing Marquee Clients

DATA PATTERNS

## Marquee customers in the Indian defence & aerospace ecosystem

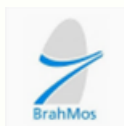
### Government Departments

Ministry of  
Defence



Indian  
government  
space  
organisation

### Indian DPSU



### Others



## History of business continuity & reliable product service for marquee customers



### History of reliable product service for several customers

Supplying products to Indian govt. space org. for 20+ years; which continue to be under AMC  
Products supplied to BrahMos operational from 2006



### Invest in product development ensuring continuity of business

Developed cockpit displays for LUH, which has potential to generate additional annuity revenues from the new units



### Products form critical components

Launch systems for ground based BrahMos missile launcher, "take me home" displays for the Tejas



### Supply of products to prestigious defence projects in India

Like LCA, the HAL Dhruv, LUH and the BrahMos missile programme

# Led by a Highly Reputed and an Experienced Management Team

DATA PATTERNS



**Mr. Srinivasagopalan Rangarajan**  
*Promoter, Chairman & Managing Director*

- Over 3 decades of experience in business development, corporate affairs, finance and marketing
- B.Tech in Chemical Engineering from University of Madras, M.S from IIT, Madras



**Ms. Rekha Murthy Rangarajan**  
*Promoter, Whole Time Director*

- Over 2 decades of experience in administration, facility maintenance, HRD, process engineering and special projects
- B.A from Bangalore University, M.A in applied Psychology from Madras University



**Mr. Vijay Ananth K**  
*Whole Time Director, COO and Chief Information Security Officer*

- Over 2 decades of experience in software engineering and product management
- BCS from Manomanian Sundaranar University and Masters degree in computer applications from the University of Madras
- *Associated with Data Patterns – 20+ years*



**Mr. Venkata Subramanian Venkatachalam**  
*Chief Financial Officer*

- Over 2 decades of experience in finance sector
- B.Com from Madurai Kamaraj University, Member of ICAI
- *Associated with Data Patterns – 20+ years*



**Mr. Desinguraja Parthasarathy**  
*Chief Technology Officer*

- 32 years experience in product development
- B.E from University of Madras
- *Associated with Data Patterns – 30+ years*



**Mr. Thomas Mathuram Susikaran**  
*SVP – Business Development*

- 21 years of experience in Business Development and marketing
- B.E from Madurai Kamaraj University and a Masters' degree of tech in electrical engineering, IIT – Madras
- *Associated with Data Patterns – 20+ years*



**Mr. Prakash R**  
*Company Secretary and Compliance Officer*

- >10 years of secretarial and legal expertise in listed entities
- Post Graduate Law Professional and Member of ICSI
- *Joined Data Patterns in 2023*

# Well Rounded and Diverse Board



**Mr. Prasad Raghava Menon**

*Non-executive, Independent Director*

- Served as Managing Director of Tata Chemicals Ltd and Ex-Tata Power Company Ltd.
- Bachelor's degree from IIT, Kharagpur



**Mr. Sowmyan Ramakrishnan**

*Non-executive, Independent Director*

- Ex-Executive Director and CFO of Tata Power.
- Bachelor's degree in technology (mechanical engineering) from IIT-M and a PG Diploma in Business Administration from IIM-A and M.A from Department of Oriental Studies and Research



**Mr. Vadlamani Venkata Rama Sastry**

*Non-executive, Independent Director*

- Retired Chairman and M.D of Bharat Electronics Limited and ex-Executive Director of Centre for Development of Telematics
- B.Sc and B.E in electronics and communication from Andhra University



**Ms. Anuradha Sharma**

*Non-executive, Independent Director*

- Founder of H.R. Practice Private Limited.
- Directorship in Gokaldas Exports Limited and Peopable Advisory Services Private Limited
- Graduate from Xavier School of Management



**Mr. Mathew Cyriac**

*Nominee Director*

- 23 years of experience in investment banking and private equity.
- Previously associated with Blackstone Advisors, Bank of America, DLJ Merchant Banking Partners and Credit Suisse
- Bachelor's degree in technology (mechanical engineering) from Anna University and Post graduate diploma in management from IIM-B (gold medalist)

# Appendix



on

# Historical Statement of Profit and Loss

Particulars (Rs. Mn)	FY21	FY22	FY 23
Revenue from Contract with Customers	2,239.5	3,108.5	4,534.5
Other Income	26	39.6	92.2
<b>Total Revenue</b>	<b>2,265.5</b>	<b>3,148.1</b>	<b>4,626.7</b>
Expenses:			
a) Cost of materials consumed	629.78	915.9	1,941.4
b) Changes in inventories of FG, WIP and SIT	74.25	-55.2	-232.3
c) Employee benefits expenses	484.21	623.5	794.9
d) Finance cost	145.02	109.9	77.4
e) Depreciation / Amortization	55.52	66.3	84.5
f) Other expenses	131.38	213.9	312.4
<b>Total Expenses</b>	<b>1,520.2</b>	<b>1,874.3</b>	<b>2,978.3</b>
<b>Profit before tax</b>	<b>745.34</b>	<b>1,273.8</b>	<b>1,648.4</b>
Tax expense	189.63	334.1	408.4
<b>Profit(Loss)for the period</b>	<b>555.71</b>	<b>939.7</b>	<b>1,240.0</b>
Other Comprehensive Income	-9.56	-11.5	-10.2
<b>Total Comprehensive Income for the year</b>	<b>546.15</b>	<b>928.2</b>	<b>1,229.8</b>
PAT Margin %	24.53%	30.23%	27.35%
<b>EBITDA</b>	<b>919.4</b>	<b>1,409.9</b>	<b>1,718.1</b>
EBITDA margin%	41.10%	45.33%	37.89%
Return on Net Worth	30.70%	24.01%	14.24%
Total Debt	332.21	67.7	7
Debt to Equity	0.16	0.01	0.00



# Historical Balance Sheet

Particulars (Rs. Mn)	Mar-20	Mar-21	Mar-22	Mar-23
<b>ASSETS</b>				
Non-current assets				
(a) Property, Plant and Equipment	278.2	292.1	441.6	912.5
(b) Capital Work in Progress			173.0	13.5
(c) Intangible Assets	1.6	5.6	13.5	20.0
(d) Right of Use Assets	53.7	34.4	19.7	187.9
(e) Other Financial Assets	464.8	340.7	1,220.4	838.7
<b>Total non-current assets</b>	<b>798.2</b>	<b>672.8</b>	<b>1,868.2</b>	<b>1,997.7</b>
Current assets				
(a) Inventories	794.1	737.5	1,197.7	1,929.5
(b) Financial Assets				
(i) Investment				556.8
(ii) Trade receivables	1,156.3	1,559.4	1,983.1	3,824.8
(iii) Cash and cash equivalents	15.1	88.1	1,770.8	2,147.8
(iv) Other Bank Balances				3,297.5
(iv) Other Financial Assets	37.2	51.0	88.6	211.5
(c) Other current assets	152.6	177.3	158.3	379.7
<b>Total current assets</b>	<b>2,155.4</b>	<b>2,613.2</b>	<b>5,198.5</b>	<b>12,351.7</b>
<b>TOTAL ASSETS</b>	<b>2,953.6</b>	<b>3,283.7</b>	<b>7,066.7</b>	<b>14,349.4</b>

Particulars (Rs. Mn)	Mar-20	Mar-21	Mar-22	Mar-23
<b>EQUITY AND LIABILITIES</b>				
<b>Equity</b>				
(a) Share capital	17.0	17.0	103.8	112.0
(b) Other Equity	1,518.0	2,060.7	5,641.3	11,558.8
<b>Total equity and liabilities</b>	<b>1,535.0</b>	<b>2,077.7</b>	<b>5,745.1</b>	<b>11,670.8</b>
<b>Liabilities</b>				
Non-current liabilities				
(a) Financial Liabilities				
(i) Borrowings	5.5	97.7	7.3	2.6
(ii) Lease Liabilities	38.5	24.4	11.1	4.3
(b) Provisions	56.4	85.2	111.6	102.5
(c) Deferred Tax Liability (Net)	7.6	8.1	-	
(d) Other Non Current liabilities	143.2	273.7	157.0	1,306.8
<b>Total non-current liabilities</b>	<b>251.2</b>	<b>489.0</b>	<b>287.0</b>	<b>1,416.2</b>
Current liabilities				
(a) Financial Liabilities				
(i) Borrowings	600.1	234.5	60.4	4.6
(ii) Trade payables	172.6	120.0	381.5	430.6
(iii) Other Financial Liabilities	79.2	40.1	220.7	118.0
(iv) Lease Liabilities	20.8	15.2	13.2	13.4
(b) Other current liabilities	224.7	246.4	226.8	664.4
(c) Provisions	14.9	9.6	7.2	31.4
(d) Current tax Liabilities	55.2	51.3	124.8	
<b>Total current liabilities</b>	<b>1,167.5</b>	<b>717.0</b>	<b>1,034.6</b>	<b>1,262.4</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>2,953.6</b>	<b>3,283.7</b>	<b>7,066.7</b>	<b>14,349.4</b>



# Historical Cash Flow

DATA PATTERNS

Particulars (Rs. Mn)	FY20	FY21	FY22	FY23
Net Profit before tax	284.7	745.2	1,273.8	1,648.4
<b>Adjustments for :</b>				
Add : Depreciation	54.6	55.7	66.3	84.5
Add : Interest And Finance Charges	133.4	145.0	109.9	77.4
Add : Liquidated Damages (LD) Written Off	-	-	12.8	44.6
Add : Unrealised Forex Gain/Loss	-	-	3.9	11.3
Less: Profit on sale of assets	-1.8	-1.2	-	-
Less: Profit/Loss on sale of Mutual Funds	-	-	-	-8.0
Less: Interest Income	-25.6	-22.2	-39.8	-84.2
<b>Operating Profit Before Working Capital Changes</b>	<b>445.3</b>	<b>922.5</b>	<b>1,426.9</b>	<b>1,774.0</b>
Adjustments For Working Capital Movements :	-282.4	-183.7	-621.4	-1,412.2
<b>Cash Generated From Operations</b>	<b>162.9</b>	<b>738.8</b>	<b>805.5</b>	<b>361.8</b>
Direct Taxes (Paid) /adjusted	-28.4	-189.8	-283.6	-534.2
<b>Net Cash flow From Operating Activities (A)</b>	<b>134.5</b>	<b>549.0</b>	<b>521.9</b>	<b>-172.4</b>
<b>Cash Flow From Investing Activities (B)</b>	<b>14.0</b>	<b>-27.5</b>	<b>-1,197.7</b>	<b>-3,831.6</b>
<b>Cash Flow From Financing Activities (C)</b>	<b>-136.5</b>	<b>-448.6</b>	<b>2,358.6</b>	<b>4,381.0</b>
<b>Net Increase in Cash &amp; Cash Equivalents (A+B+C)</b>	<b>12.0</b>	<b>72.9</b>	<b>1,682.8</b>	<b>377.0</b>
Cash & Cash Equivalent At The Beginning Of The Year	3.1	15.1	88.0	1,770.8
<b>Cash &amp; Cash Equivalent At The End Of The Year</b>	<b>15.1</b>	<b>88.0</b>	<b>1,770.8</b>	<b>2,147.8</b>

# Core groups or departments for design and development of products

**Total Employee Strength**



Department	# of Employees
Design & Engineering (D&E)	609
Manufacturing	395
Support	116
Marketing & Customer support	64
<b>Total In Q1FY24</b>	<b>1184</b>

**750+ qualified Engineers out of 1184**  
Our senior members in hardware, design and development have been with us for more than **15 years**

Group/Department	Responsibility / Scope
<b>Hardware Development Department</b>	Design and development of all types of high-end and complex electronics modules and building blocks. Includes Single board computers, Field Interface modules, Communication Modules, Custom I/O Modules, Mezzanine modules, Signal conditioning modules etc.
<b>Software Development Department</b>	Design and development all types of embedded, real-time and application software. Includes devices drivers, Operating system porting, real-time data transfer, GUI application for various Operating systems and hardware.
<b>Mechanical Engineering Department</b>	Design and development of all types of mechanical packaging, big structure systems and jigs and fixtures. Includes standard ATR chassis, heat spreaders, structural and thermal analysis etc.
<b>CAD / CAM Group</b>	PCB schematics, Artwork, signal analysis, power analysis, electrical wiring, all modules/systems performance, and maintenance statistics like MTBF etc. Includes up to 26 Layer PCB design, hybrid electrical interface design etc
<b>Algorithm Development Group</b>	Design and development of various domain algorithms for RADAR, Electronic Warfare, Communication waveform etc. Uses all types of algorithm development including mathematical modelling, statistical modelling, feedback modelling etc.
<b>Radio Frequency Modules Group</b>	Design and development of all types of RF modules and sub-systems. Includes simple RF receiver/exciter, filters, upconverters/downconverters, synthesizers etc.

Group/Department	Responsibility / Scope
<b>DOMAIN Systems Groups</b>	Design and Development of product verticals as a system. Including RADAR, EW, Communication, ATEs, Fire-control systems, Satellite, Avionics etc.
<b>Production Department</b>	All the products are functionally and environmentally tested by this department. Includes testing of modules and sub-systems, wiring, mechanical assembly, and integration etc.
<b>Electronics Manufacturing Services (EMS)</b>	Fabrication of all electronics modules. Including automated pick-n-place, manual soldering, conformal coating etc.
<b>Harnessing Group</b>	Fabrication of all types of cable harness including internal wiring, external interface wiring, testing of cables for continuity, impedance etc.
<b>Mechanical Integration Group</b>	Assembly and integration of all types of mechanical parts. Including various types like LRU assembly, board assembly, system assembly, system integration etc.
<b>Project Management Group</b>	Responsible for Delivering all the orders both internal and external. Vertical integration of groups and product development responsibilities. Includes all types of projects from simple module delivery to full system delivery. Utilizes, project plan, metrics, GANNT charts, budgeting and control, optimal execution methods etc

# Defence modernization programmes

DATA PATTERNS



## Arudhra Radar

- Expected to supply ~55 units of AGRU/ Arudhra radar
- Likely to generate revenues in the next 3-4 years based on the requirement projection of IAF



## Ashwini LLTR

- Partner in development of these radars as a single vendor incl. TR modules, AGRU, signal processor, etc
- Expected to realise revenue between \$10-30 million in the next few years.



## Dharashakti programme

- Has received single vendor orders from DLRL for development and supply of all of the COMINT search receivers, Direction Finder & Monitoring receivers.
- In a position to be an OEM for the entire receiver systems with likely revenues of \$ 50 million on complete execution



## MI 17 Upgrades, Dornier Upgrades, Aerostat upgrades,

- Expertise gained in the Dharashakti project would also position to cater for airborne COMINT and ELINT equipment for various upgrades of any new rotary wing programmes



## Light weight EW requirements

- EW capability will help in supplying products for Light weight EW products which have a heavy requirement in mountainous borders as they are not adequately covered, and the same has been prioritised due to the increased geo-political tension



## Airborne surveillance radar

- Has delivered an airborne surveillance radar (all of the hardware) to LRDE which is expected to be flight tested in the next few months and will be likely inducted in Navy's Dornier upgrade and new helicopter programmes



## Radar Warning Receivers

- Also a part of the Radar Warning Receivers for the Airborne Early Warning System ("AEW &C") to DLRL which has been fitted on the Embraer early warning radar developed by Centre for Air Borne System ("CABS")



## Next Gen completely wide open for LCA Mk IA and Sukhoi 30 platforms

- Likely to deliver Next Gen completely wide open for LCA Mk IA and Sukhoi 30 platforms subject to flight testing.
- After flight testing, these can be fitted on the 83 LCA MK IA on order as well as the Sukhoi 30 upgrades (approximately 270 numbers), attack helicopters, etc.

# Indian defence and aerospace industry is rapidly evolving into a self-sustaining one

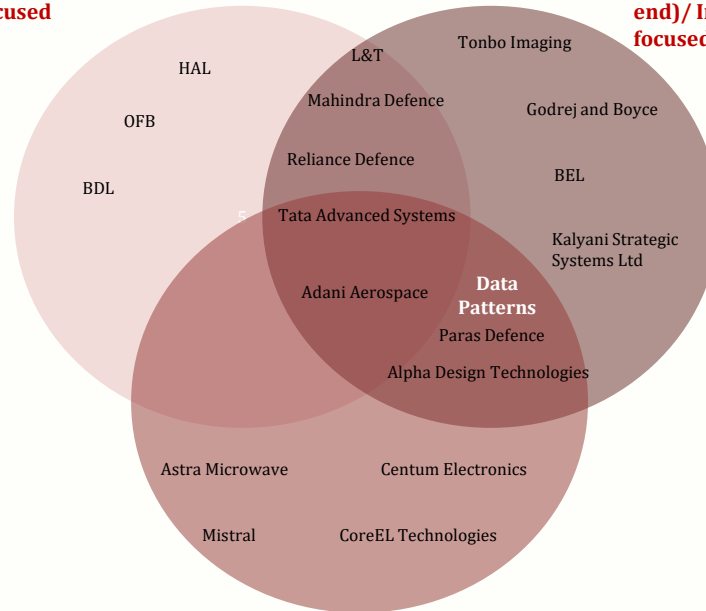
## Competition at two levels for Data Patterns

During **development stage** in DRDO requirements **from small and medium size companies** building custom solutions and/or integrating solutions around imported COTS products

From **large corporates** offering complete systems, often under a **partnership with International OEMs**, for products and programmes directly procured by the Indian government space organization

## Indian defence suppliers – Anticipated Future Positioning

**Platform/ Solution Focused**



**Subcomponents focused**

## We are poised to take up emerging opportunities

Our products are **developed to compete with international and domestic equivalents**. Further, we offer **end to end solutions** to the customer

Ability to offer **wide range of products**. We also have **strong and balanced capabilities across 12 defence and aerospace segments**

# Thank You

For further information, please get in touch with:

Sheetal Khanduja  
[sheetal@GoIndiaadvisors.com](mailto:sheetal@GoIndiaadvisors.com)  
M:+91 9769364166



**Made in India  
with Pride**