PTC INDUSTRIES LIMITED
Advanced Manufacturing & Technology Centre
NH 25A, Sarai Shahjadi, Lucknow 227 101
Uttar Pradesh, India

Date: September 23, 2023

To,
National Stock Exchange of India Limited
Exchange Plaza, C-1, Block G Bandra Kurla Complex, Bandra (E),
Mumbai-400051

SYMBOL: PTCIL

To
BSE Limited
Department of Corporate Services - Listing
Phiroze Jeejeebhoy Towers, Dalal Street,
Mumbai – 400001

BSE Code: 539006

Subject: Investors Presentation

Dear Sir/ Madam,

Pursuant to Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, Please find attached herewith the Investor Presentation.

A copy of the same will also be available on the website of the Company www.ptcil.com.

You are requested to kindly take the same on your record.

Thanking You,

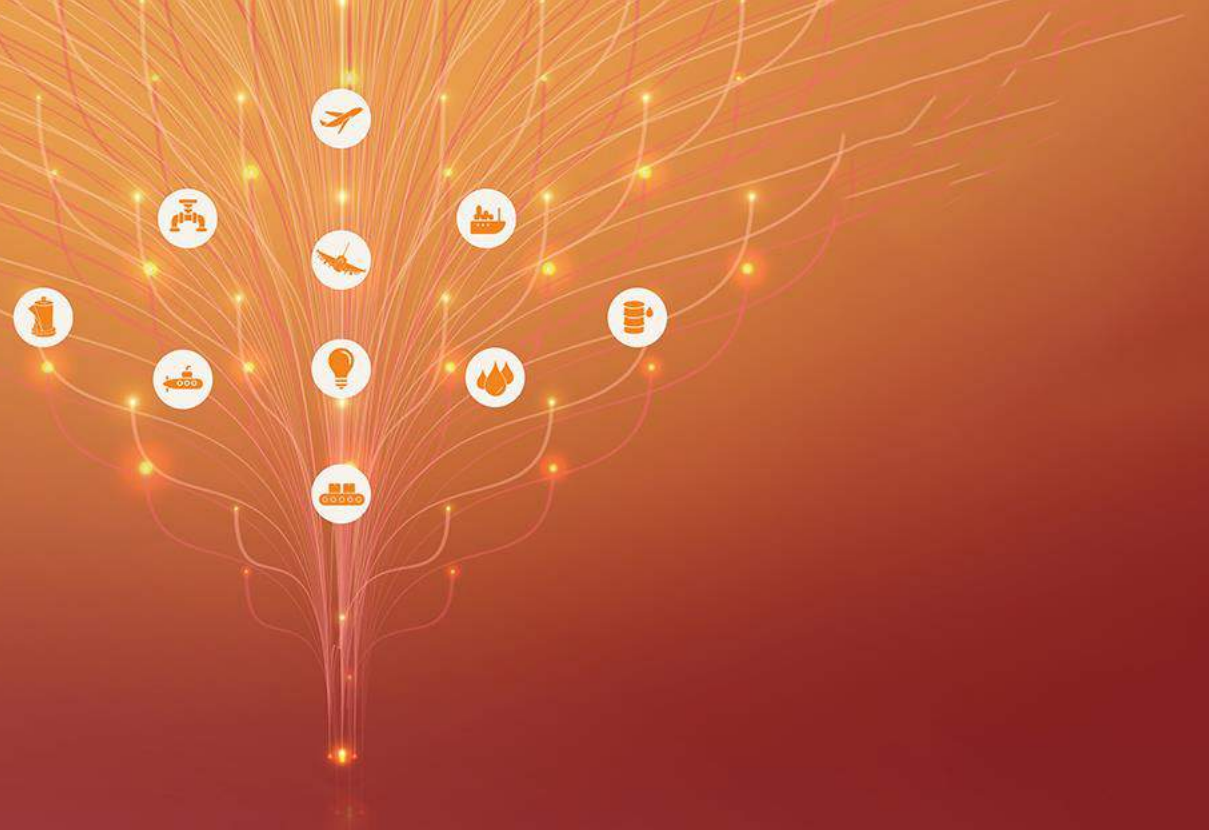
For **PTC Industries Limited**

Smita Agarwal
Digitally signed by Smita Agarwal
Date: 2023.09.23 15:37:00 +05'30'

(Smita Agarwal)
Director and CFO
DIN- 00276903

Encl.: as above

PTC INDUSTRIES



TOWARDS PARITY

Powering the engine

SACHIN AGARWAL

22ND SEPTEMEBER 2023

PTC
at a Glance

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

Our **Journey**

THE ORIGINS

1960s

New Capabilities

First investment Costing Foundry in India

Satish Chandra Agrawal
Begun with a dream of creating a new capability in the country

1970s

Indigening technology
Import replacements for
Import replacements for

First step towards self-relience

1965

Established Plasma arc melting capability
For manufacture of metal components in such metallurgies that the country had never produced

Vacuum melting technology

Our **Journey**

1980s
GOING GLOBAL

At par with the world
PTC became capable of replacing import of industrial components

Make in India
Make for the world
Venture into exports

1981
Set up of in house research labs

1986
Winning Accolades
Recognition by Departmen of science & Technology

1988
Bringing technology
Technical col abenions or enhancing capability further

2006
Award winning technologies-Rapidcast

Award the National Award for R&D by Government of India

2007
Introducting automotion

First ever Robotic-Shell Coating system developed and installed

Our **Journey**

THE LEAP

2010s

Harnessing intrinsic capability

Over 6,000 single piece Near-Net-Shape castings

2011

DSIR approved project – for RapidCast Technology

2014

One of 16 Hidden Gems

Identified as fast growing company with constant innovation

Time India Special Innovator of the Year

- CII Industrial Innovation Awards
- Rolls Royce Cost Leadership Award
- Uttar Pradesh Gomti Gaurav Award

Our **Journey**

2015

Titanium Casting Capability
FIRST time ever in India

Exotic & Hignor Alloy Powder

Add five Menufacturing
Exotic & Hignor Alloy Powder

2017

Building a new capability from ground up

Best in class technologies

Robotics and automation

Advanced manufacturing

Global best practices

Latest methodologies and processes

State of the art/infrastructure

Design and simulation techniques

Cleans & Green

Sustainable manufacturing technologies

Reuse & Recycle

Clean energy from solar solar

Rainwater Harvesting

Passive Cooling

Our **Journey**

2021

Profound and long lasting benefits for the nation

दृष्टानां दृष्टप्रयोजनानां दृष्टाभावे प्रयोगो ऽभ्युदयाय ॥ १०.२.८ ॥

dṛṣṭānāṃ dṛṣṭaprayojanānāṃ dṛṣṭābhāve prayogah 'bhyudayāya || 10.2.8 ||

The path to prosperity is by the way of 'Prayogah',
experimentation and technological development - Vaisheshika Sutra

2019

TOWARDS PARITY

Experimentation of development through automation and robotics

MAKE IN INDIA

A path to excellence, enrichment, prosperity

It's the proficient team which are **the strong pillar of the company**

Sachin Agarwal
Chairman & MD

MBA in Operations – University of Tulsa, Oklahoma & M. Sc in Finance - Boston College, Massachusetts

Industry Experience of 25+ years

Responsible for new technologies & continuous R&D efforts

Mr. Priya Ranjan Agarwal
Director, Marketing

Mr. Alok Agarwal
Director, Quality & Technical

James Collins
Head Technology & Innovation

Ms. Smita Agarwal
Director & CFO

Stephane Bras
Head of Sales - Europe

Ashok Kumar Shukla
Executive Director

Our **Core Values**

Our values define who we are, how we operate, and where we're headed. Our values are defined by the word ASPIRE, which stands for :

Agility

responding and adapting to changes quickly; learning new skills and responding to new requirements; executing work faster

Sustainability

taking responsibility for longevity; creating lasting value for our stakeholders; safeguarding the environment

Selflessness

seeking what is best for PTC; having no ego when searching for the best ideas; helping colleagues; sharing information openly and proactively.

Passion

inspiring others with own thirst for excellence; caring intensely about PTC's success; being tenacious

Prudence

making wise decisions; getting beyond treating symptoms and identifying root causes; thinking strategically.

Integrity

being known for honesty, candour, and directness; being straightforward, being quick to admit mistakes

Impact

accomplishing important work ; demonstrating consistently strong and reliable performance; focusing on results

Innovation

re-conceptualizing issues to discover practical solutions to difficult problems; challenging prevailing assumptions and suggesting better approaches; creating new ideas; staying nimble; minimizing complexity and simplifying.

Respect

treating people with respect independent of their status or disagreement; listening well to understand better; remaining calm in stressful situations; understanding and being considerate of the needs of others.

Endurance

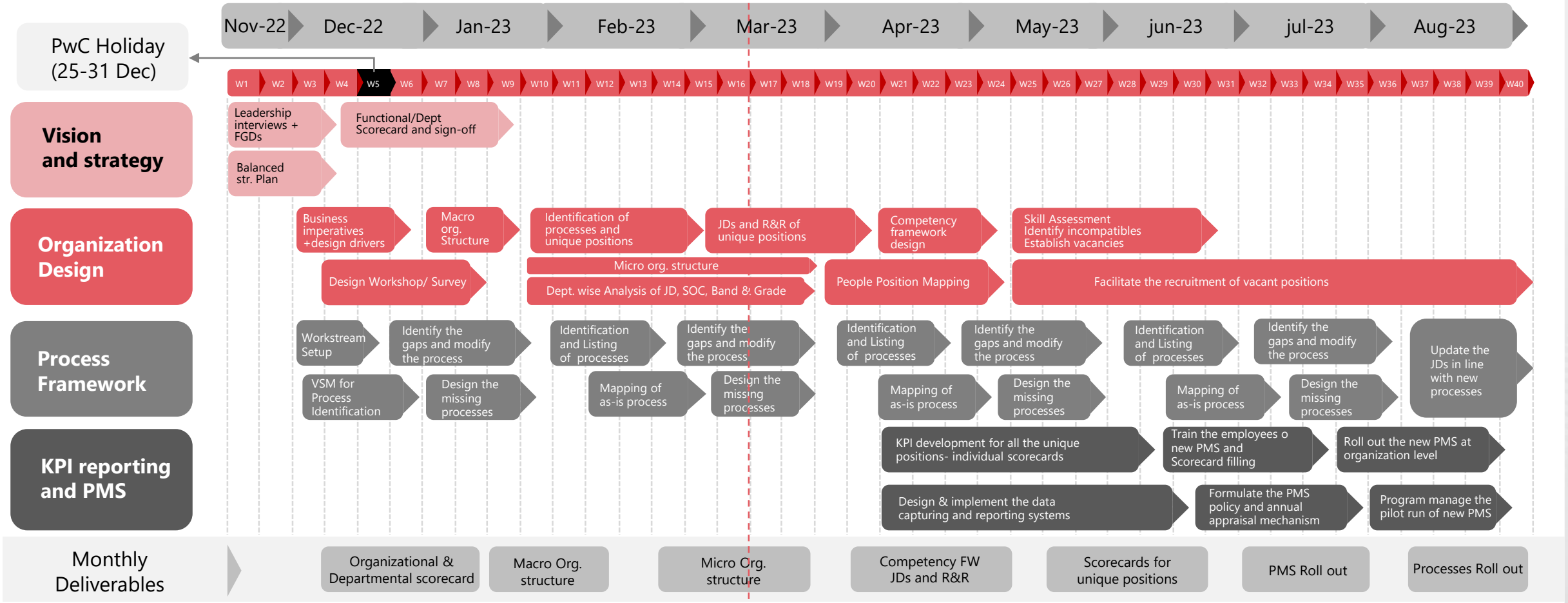
rejecting the temptation to give up when things get tough; staying focused on executing work.

Aspire embodies in itself the path to our success and the aspiration to get there.

Our focus on **Human Resource Development**

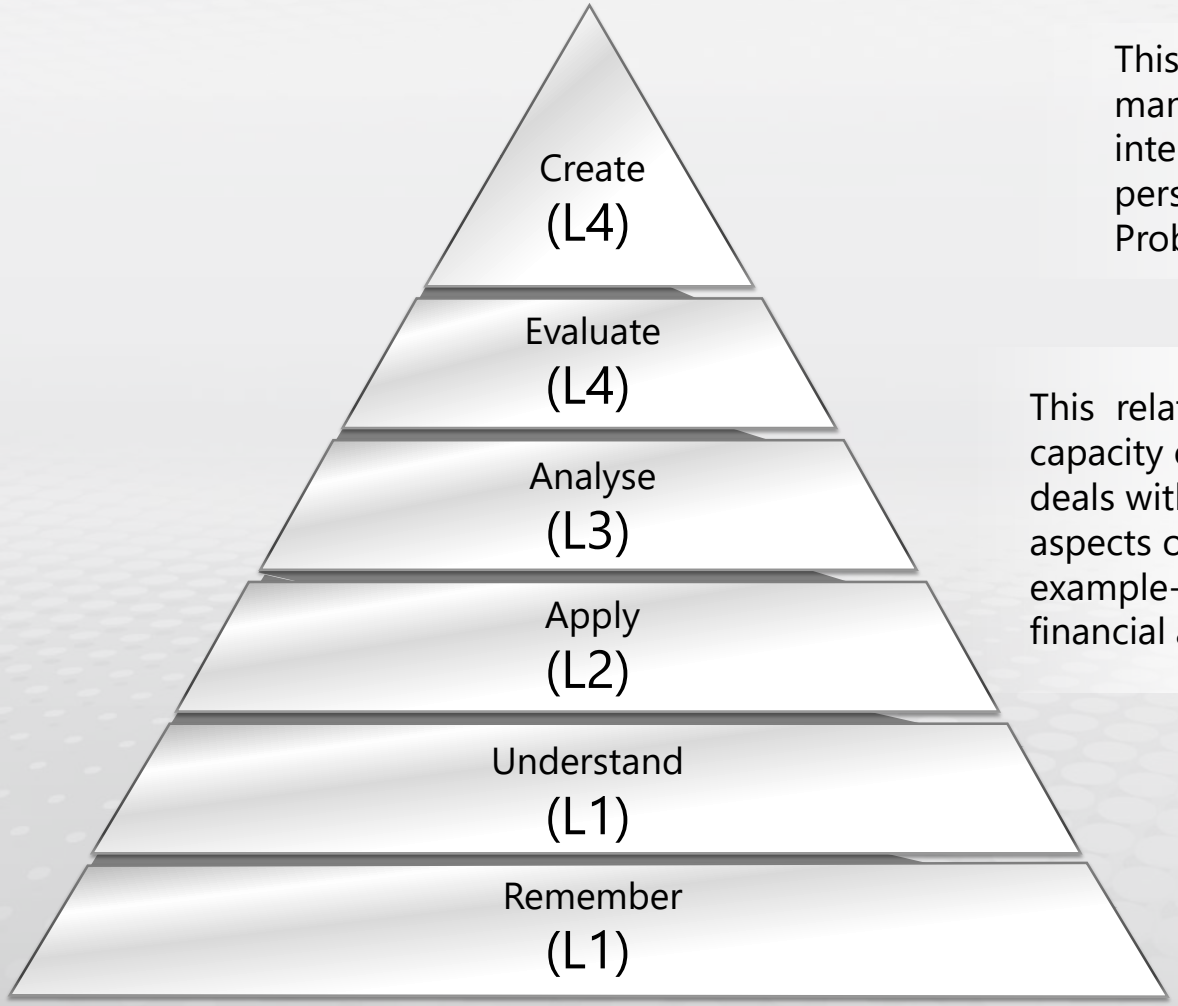
Comprehensive HR Trasformation Scope with detailed timeline and project plan.

High Level Project Timeline



Our focus on **Human Resource Development**

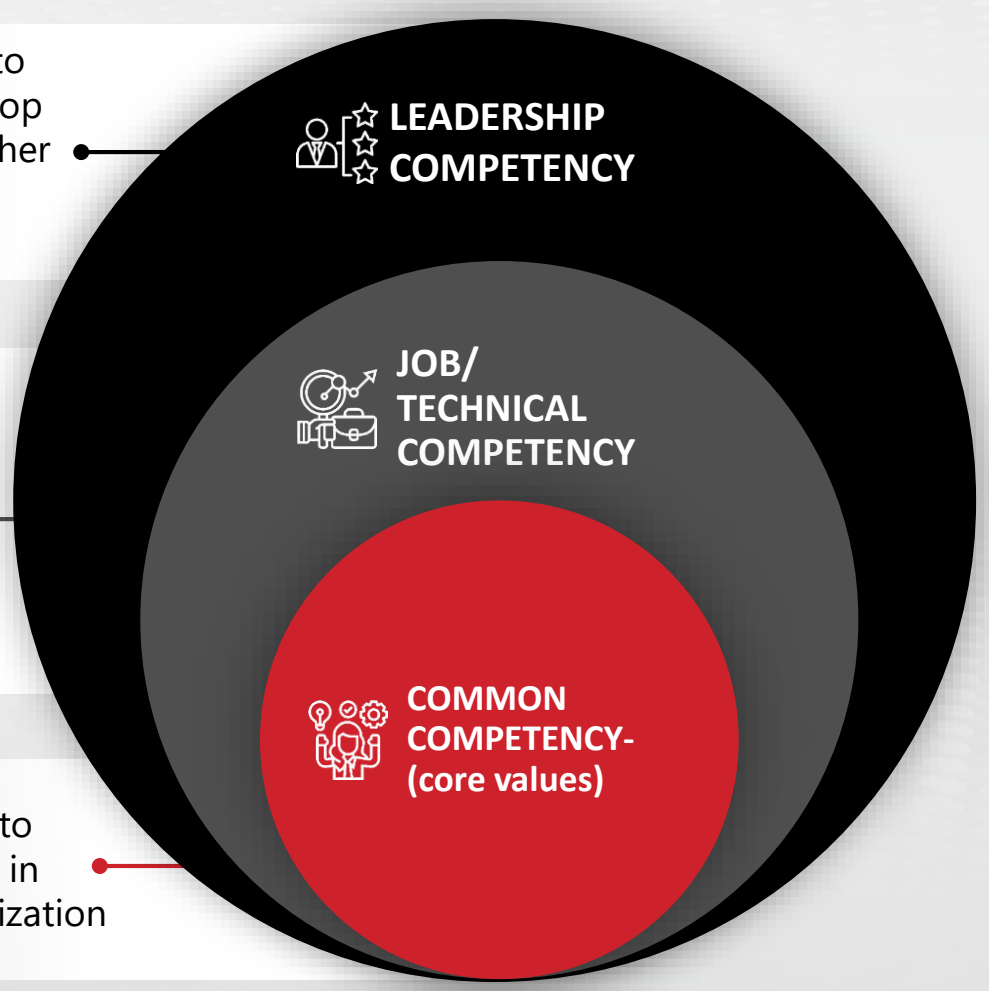
Training and Competency Development Framework.



This relates to ability to manage job and develop interaction with the other persons. For example- Problem solving.

This relates to functional capacity of work. It mainly deals with the technical aspects of the job. For example- market research, financial analysis etc.

Common to every one in the organization



Our efforts are getting recognised

Raksha Mantri's Award at #DefExpo2022

PO Handover by SAFRAN AIRCRAFT ENGINES at #AeroIndia 2023

MoU Signing with DASSAULT AVIATION at #AeroIndia 2023

AEROLLOY / PTC exhibited at the Paris Air Show 2023

54ème INTERNATIONAL PARIS AIR SHOW LE BOURGET JUNE 19-25, 2023 | 54e SALON INTERNATIONAL DE L'AÉRONAUTIQUE & DE L'ESPACE PARIS · LE BOURGET 19-25, JUIN 2023

BAE Systems, PTC sign MoU for making M777 Howitzer parts

The first sub-systems will be made by end of 2022

BAE SYSTEMS

(L-R) Ravi Nirgudkar, MS, MBA, MD at BAE Systems, India, Bangladesh, Sri Lanka; Sachin Agarwal, CMD, PTC Industries; Paul Wint, India industrialisation director, BAE Systems and Bharat Sharma, Commissioning IMT Lead at BAE Systems

BAE Systems & PTC Industries have signed an agreement to manufacture titanium castings for the Indian 155mm M777 Ultra-lightweight Howitzer (ULH) at PTC Industries' production facility in Lucknow.

The agreement aims to produce the complex lightweight titanium castings, developing the tightly controlled fabrication process and ensuring the same parts can be manufactured in any future production of the M777 Howitzers for India. The first sub-systems will be produced by the end of 2022, and there is a plan to progress manufacture of all three of the major structures (Saddle, Cradle, and Lower Carriage) that form the basis of the gun. Indian suppliers which participate in the M777 programme can earn a role in the overall BAE Systems global supply chain through their performance.

"The production process at PTC Industries is being developed and qualified to deliver the long-term support for the 145 M777s we are delivering to India," said Duncan Stevenson, the general manager of BAE Systems Weapon Systems UK, which manages the manufacture and assembly of the M777 light-weight Howitzers. "This agreement will allow BAE Systems and PTC Industries to jointly provide major structures to support the spares and repair programme required to keep the guns available for the Indian Army. It also ensures that the overall 'Make in India' content of the ULH is above 60%, which will allow the Government of India to procure any future platforms under a 'Make in India' acquisition requirement."

BAE Systems also has a 52-Calibre 155mm barrel for the ULH, which it is willing to manufacture in India, further expanding Indian artillery capability from this battle-proven system. This would make India the first customer to have a 155mm 52-calibre platform under 5,800kgs in weight.

UP to excel in aerospace, defence sectors: Rajnath

Opens First Pvt Manufacturing Unit In Corridor

TIMES NEWS NETWORK

Lucknow: Defence minister Rajnath Singh said on Saturday that more private companies will start investing in Lucknow and Uttar Pradesh, which will make a mark in defence and aerospace sector manufacturing.

After inaugurating the first private defence manufacturing facility in UP Defence Industrial Corridor, Singh said, "More companies will invest in Lucknow and UP, and the state will make a mark in defence and aerospace sector manufacturing. "He also lauded CM Yogi Adityanath for important reforms and incentivising investment.

"I believe more private companies will invest in UP and the government will provide all support. This investment will ensure that people will not have to leave their homes in search of employment." Singh exhorted the industry to focus on research and development and make full use of government's policies to stay ahead in the race of developing state-of-the-art technology.

"I urge industry to make the local community a partner in their success by adopting ITI, schools, hospitals and starting apprenticeship programmes," he said.

"Adoption of technology is a must for being successful in today's competitive environment. PTC industry's integrated metal manufacturing facility will reduce the nation's dependence on imports and help in building Atmanirbhar Bharat," he added.

The facility run by Aerlloy Technologies, a subsidiary of PTC Industries, will manufacture parts for aircraft and helicopter engines, drones, submarines, ultra-light artillery guns, space launch vehicles and strategy systems. Singh emphasised the need for continuous modernisation of armed forces in the rapidly changing global security environment.

"The Indian defence industry has the potential to develop quality and cost-effective equipment which will bolster national security and can be exported," he said.

Reaffirming the resolve of 'Make in India and Make for the World', Singh listed the government's measures for self-reliance.

Defence minister Rajnath Singh inaugurating a defence manufacturing facility in Lucknow on Saturday

Recent **Milestones**

Land at UP Defence Corridor	Built Capabilities	Allotment of 50 Acres of land next to Brahmos facility, by UPEIDA, in Lucknow node of the UP Defence Industrial Corridor
Fabrication and Assembly Line		Fabrication and Assembly Line for BAE Systems
Acquisition of the Vacuum Arc Remelter		This Facility is critical for manufacturing Titanium Ingots from Sponge (ore) with a total capacity of 1,500 tonnes p.a.
Acquisition of the EBCHR* Furnace		Recycling & Remelting Furnace for manufacturing of Titanium Alloy Ingots from recycled Titanium 5,000 TPA
Acquisition of the PAM		Acquisition of PAM
Agreement with BAE Systems	Marquee Orders & MoUs	To produce titanium castings for 155mm Ultra-Lightweight Howitzer in India
Technological Tie-up and MoU		Midhani: Manufacturing of Titanium alloy pipes & tubes, plates & sheets, Fabrication of crucial parts, etc Bharat Dynamics: Design, Develop & Manufacture Aero Engines for Missiles, UAVs, Loitering Munitions, etc Safran AE: Manufacturing & supply of Titanium & Super Alloy castings & components for LEAP Engines, etc DRDO Contract: Design, Develop & Manufacture Aero Engines for Missiles, UAVs, Loitering Munitions, etc
MoU with HAL		Indigenisation of aviation-grade Raw Materials, Components, Sub-systems, and Systems of Aero-Engines of Russian-origin aircraft
Order from Safran Engines		Received an order from Safran Aircraft Engines (“SAE”), for the development and supply of Titanium cast components for Aircraft Engines
MoU with Dassault Aviation		MOU with Dassault Aviation, a major player in the global aerospace industry

2022 — Jul — Aug — Sep — Oct — Nov — Dec — 2023 — Jan — Feb — Mar — Apr — May — Jun — Jul — Aug — Sep — Oct — Nov

Current **Macro Themes**

1

Global Supply Chain Disruption
(China Plus one)

2

Russia Ukraine War
Implications

3

Aatmanirbhar Bharat
(Make in India)

Global **Supply Chain Disruption** (China Plus One)

Global supply chain continues to shift away from China, but it remains the top sourcing location

American and European companies are gradually reducing their reliance on China, and its popularity as a sourcing market among Western buyers took a hit during the pandemic

In 2019, 96 per cent of US-based companies and 100 per cent of Europe-based companies listed China as one of their top-three sourcing countries, but those proportions respectively dropped to 77 and 80 per cent in the first quarter of this year, according to Qima, a provider of supply-chain-compliance solutions that conducted the survey.

Changes in global commerce

Trade tensions rose around the world, particularly between USA & China

COVID-19's Effects

Huge Reliance on China: Post-Covid Recognition of the Need for Reorientation and Diversification

The long-term Chinese closure has disrupted supply chains & purchasing from China

Most businesses recognized their reliance on China & diversified their supply chains to countries such as India

INDIA has a huge opportunity

The government's push to boost manufacturing

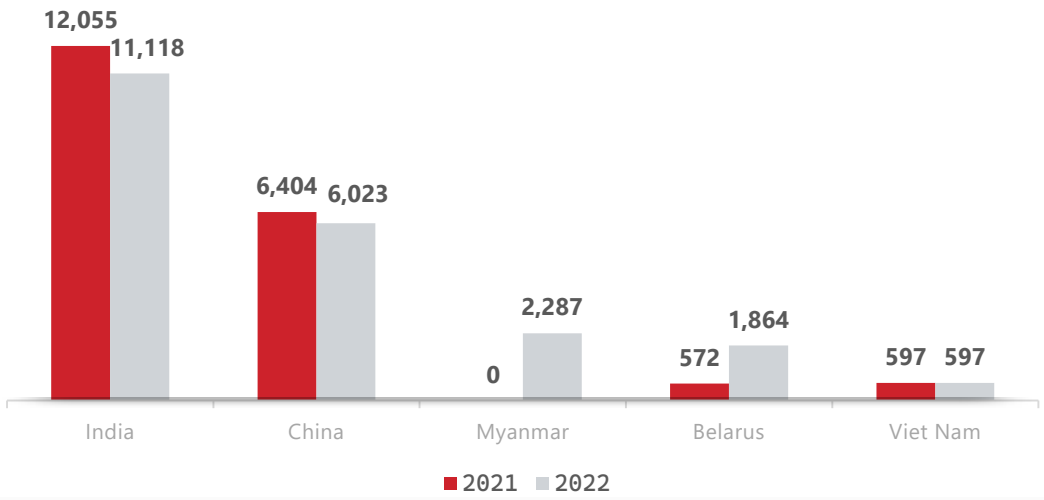
Many countries, especially India, have a huge opportunity to benefit from re-alignment for export

Source: World Exports.com | *According to United Nations Statistics Division a Exchange rate: 82.85 (USD -NR)

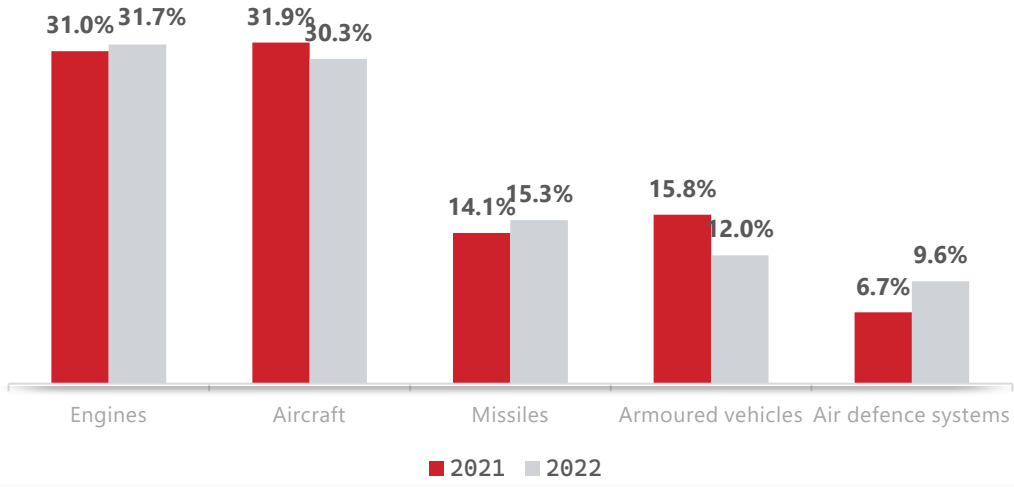
Russia-Ukraine War Implications

Russian Defence Exports

(Figures are SIPRI Trend Indicator Values (TIVs) expressed in INR Crores)



% of Total Defence Exports by Russia



Source: World Economic Forum | World Exports.com

Exchange rate: 82.85 (USD -NR)

Russia-Ukraine **War Implications**

Russia – Ukraine War added to the concerns of Supply Chain

Russia is a dominant player is for titanium

Titanium metal is particularly important in aerostructures and engines

In 2019, Russia exported over 80% of Titanium produced by it to the West

Ukraine and Russia conflict has put a lot of pressure on titanium supply chains (Also warned by giants like Boeing Inc)

Source: World Economic Forum | World Exports.com
Exchange rate: 82.85 (USD -NR)

Titanium – An Untapped Opportunity

MARKETSHEARD ON THE STREET

The West Must Wean Itself Off Russian Titanium

Aerospace companies like Airbus need alternative sources of titanium sponge to diversify their supply chains and bolster national security

Russia produced roughly a fifth of global titanium sponge supplies before the pandemic.
PHOTO: DONAT SOROKIN/TASS/ZUMA PRESS

By Jon Sindreu Follow

Aug. 5, 2022 7:35 am ET

Europe's natural gas crisis shows the problem with industrial strategies that rely on Vladimir Putin. Some Western governments and companies still haven't

Airbus says to decouple from Russian titanium 'in months'

MUNICH, Dec 1 (Reuters) - Airbus (AIR.PA) will halt its reliance on Russia for titanium supplies within months, a senior executive said on Thursday.

Russia is the largest producer of titanium, a strategic metal prized for its strength relative to its weight. It is used mainly in aircraft engines and landing gear for large planes.

CLICK HERE

Aerospace & Defense

3 minute read · March 8, 2022 4:12 AM GMT+5:30 · Last Updated a year ago

Boeing suspends Russian titanium as Airbus keeps buying

By Aishwarya Nair and Tim Hepher

CLICK HERE

BOEING (Annual Report Comments)

Most important raw materials required for our aerospace products are aluminium (sheet, plate, forgings and extrusions), titanium (sheet, plate, forgings and extrusions) and composites (including carbon and boron)

We suspended maintenance and support for Russian customers, & then in spirit of doing the right thing, we had suspended titanium import

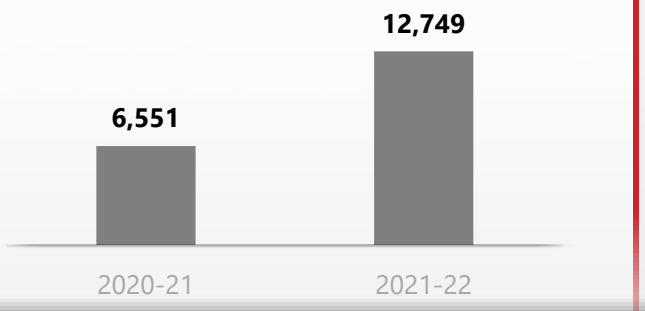
AIRBUS (Annual Report Comments)

Part of the titanium used is sourced from Russia, both directly and indirectly through Company's suppliers

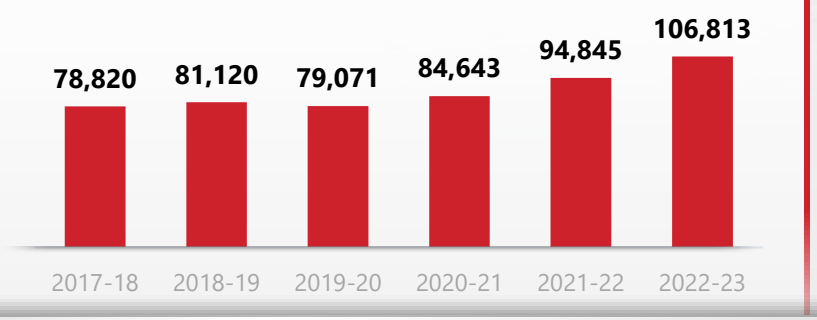
While geopolitical risks are integrated into Company's titanium sourcing policies, impact of Russia's invasion of Ukraine on Company's ability to source materials and components and any future expansion of sanctions is being reviewed

Aatmanirbhar Bharat (Make in India)

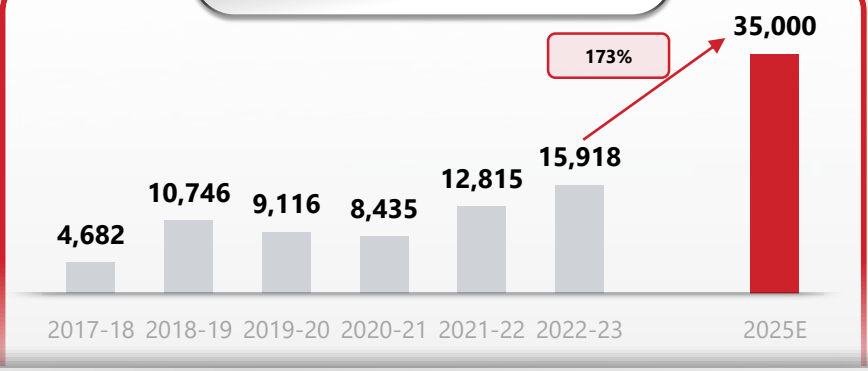
Indian Defence Imports by DPSUs (Rs. Cr)



Defence Production Value (Rs. Cr)

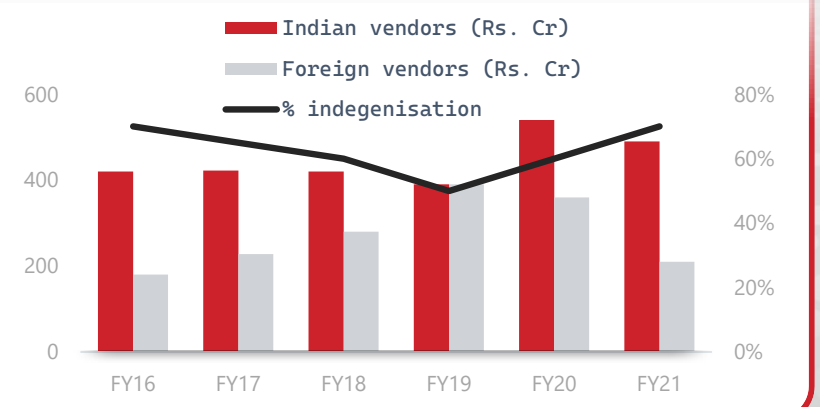


Defence Export Value (Rs. Cr)



The Government of India is focused on "Make in India" in Defence Sector to Reduce Imports and Boost Exports | Opportunity of Indian Private Players

- The Government to ban the import of more than ~400 Platforms/ Weapon/Systems/ Equipment by 2032
- Indigenisation Rising in India
- The Government is setting up Defence Corridors to push domestic manufacturing



UP Corridor | **Tamil Nadu Corridor**

INVESTMENT IN UP CORRIDOR TILL DATE

Rs. 3,732 crores

Investment by PTC Industries

Rs. 500 crores

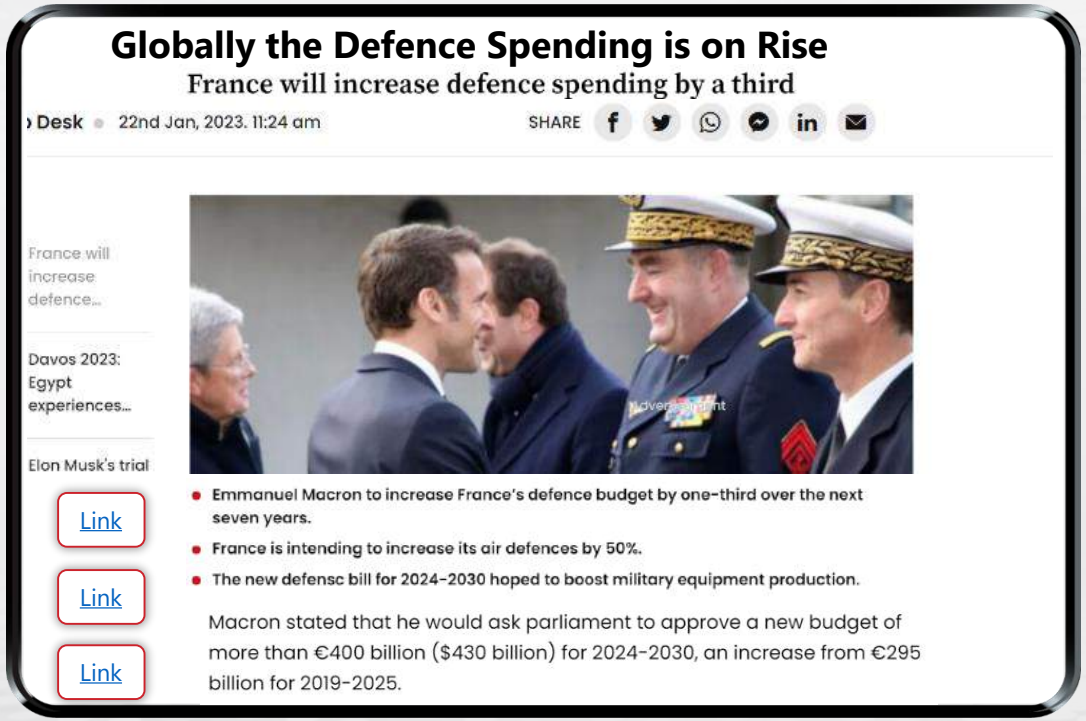
KEY HIGHLIGHTS OF THE POLICY FOR INDIGENIZATION OF COMPONENTS AND SPARES USED IN DEFENCE PLATFORMS (8th MAR 2019)

Value of components (including alloys & special materials) imported by Defence PSUs & Ordnance Factories: **~Rs. 13,810 crores (2017-18)**

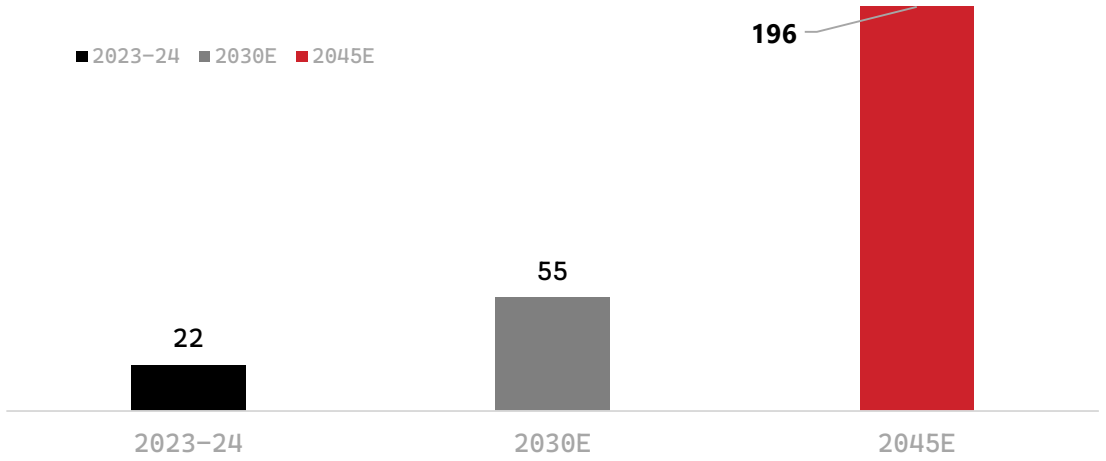
According to an estimate nearly **1 Lakh components** used for various Defence & Aerospace related platforms are being imported

Source: Defence Ministry
Home | Department of Defence Production | MOD | Government Of India | India (ddpmod.gov.in)

Increase in **Defence Capital Expenditure**



India's defence Capital Expenditure ($ Billion)



Based on 30% of Defence Budget

*Out of total Defence Spending ~30% is the capital expenditure

Indian Defence spending in 2045E
$654 Billion

Indian Defence spending in 2030E
$183 Billion

Indian Defence Spending in 2023-24
$74 Billion

Indian defence companies will get orders worth Rs 8 lakh crore over next 7 yrs, says Army chief

Discerning that the Russia-Ukraine war has shown the need to cut dependence on foreign suppliers, Army chief Gen Manoj Pande Thursday said indigenous weapon system is the way forward and that orders worth **Rs 8 lakh** crore will be placed with Indian companies in the next **7-8 years**.

World military expenditure and weapons trade | Knowledge for policy (europa.eu)
Source: European Commission
Lowey Institute for 2030 figures and UK study for 2045 figures

Technology **driven opportunities**

1

Global Supply Chain Disruption

Opens a huge opportunity for PTC in Industrial as well as Aerospace and Defence Sector

2

Russia Ukraine War Implications

Have opened gates for supply of Titanium

Recently acquired Technologies

Vacuum Arc Remelter

Electron Beam Cold Hearth Remelting furnace

Pioneer to bring this technology to India

3

Defence Spending and Indigenisation in India is on rise

PTC's vision of PARITY gives opportunity. Investing in the UP Defence Industrial Corridor to develop cutting-edge technology

Building cutting edge Technology

Widening Offerings

Proven track record

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

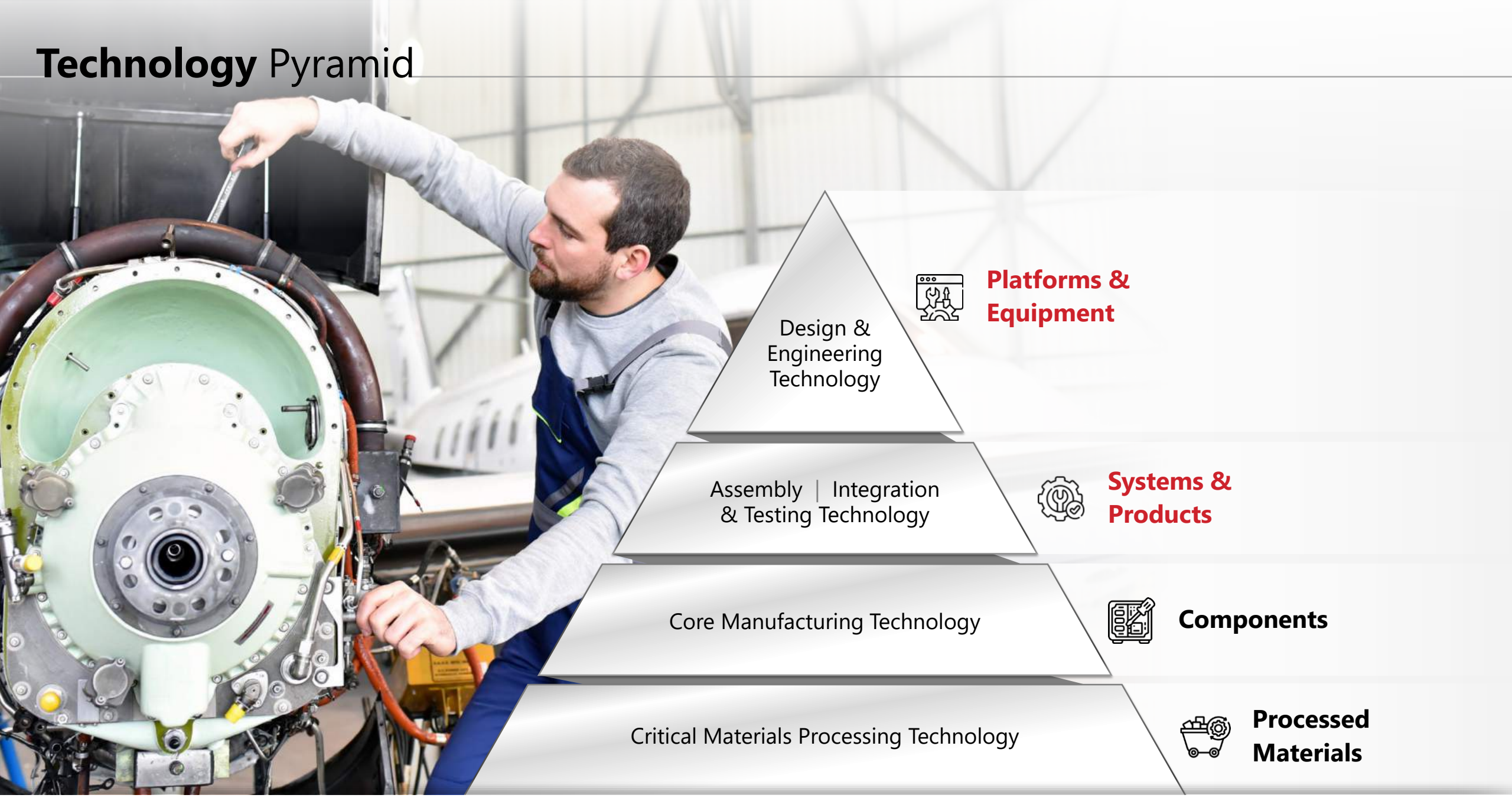
Our *Dharma* – achieving **Parity**

Therefore, It Is Our Dharma To Work
Towards Building Equality In Respect of

Capability, Technology,
Skill,Workmanship,Talent,
Knowledge,Quality,
Productivity, Efficiency, & Sustainability

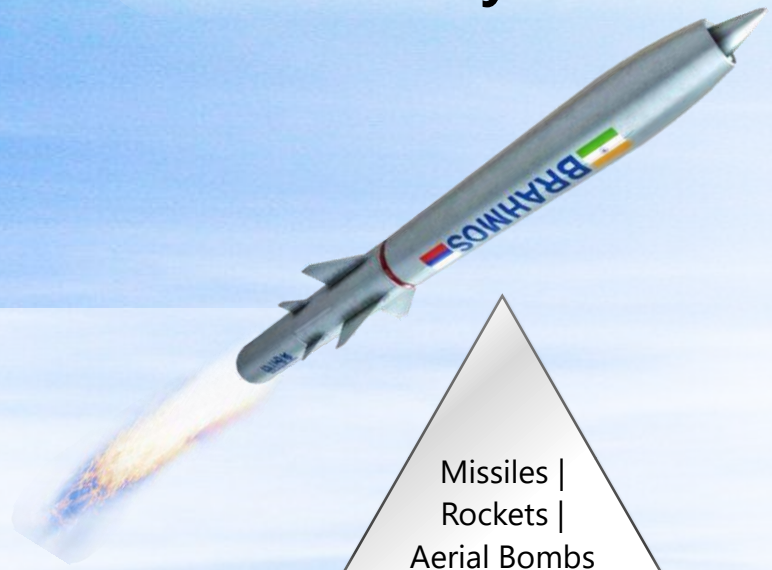
in the country to allow us to become a nation that is at par with the world.

Technology Pyramid



Air Defence Systems

Strategic Defence Systems



Platforms

Aircrafts | Helicopters | UAV & Drones

Missiles | Rockets | Aerial Bombs

Sub-systems

Airframe, Propulsion | Landing Gear | Weapon Systems Dynamic Parts

Warhead | Propulsion | Frame | Bomb Shells

Components

Aero engine parts for low temperature & hot section | Small Turbo Fan Engine parts for UAV | Starters for Turbo Engine

Cannisters | Rocket Motors | Jet Vanes | High Pressure Bottles | Titanium Wings | Penetrators

Processed Materials

Titanium Alloys | Aluminium Alloys | Cobalt Alloys | Super Nickel Alloys | Controlled Microstructure Alloys

Titanium Alloys | High Strength Steel Alloys | Tungsten

Land Defence Systems

Naval Defence Systems

Platforms

- Land: Battle Tanks | Artillery Guns
- Naval: Corvettes | Frigates | Warships & Submarines

Sub-systems

- Land: Running gear | Armour
- Naval: Hull, Propulsion | Armament

Components

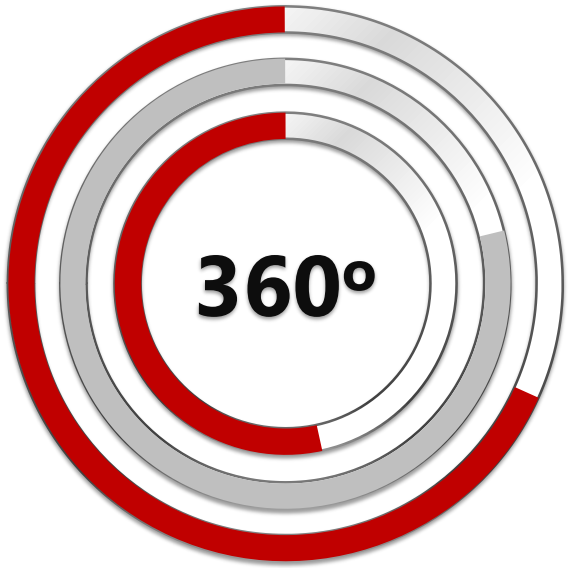
- Land: Structural parts for ULH | Light Weighting of Tanks & Armoured Vehicles | Armour Plates & Muzzles
- Naval: Valves, Pumps | Water Jet Engine | Propellers | On-line Fittings |

Processed Materials

- Land: High strength steel | Titanium Alloys
- Naval: Titanium Alloys | Duplex & Super Duplex Stainless Steel | Nickel Aluminium Bronze

Platform Independent Core Manufacturing Technologies

Established Capabilities to Cater to entire Spectrum of A&D Sector



Civil Aviation

- Torque tubes
- airframe structural
- engine mounts
- turbine frames
- engine liners
- swirlers and injectors

Air Defence

- Airframe Structures
- Intermediate casings
- Bearing Housings
- Re-fuelling nozzles
- Turbine oil-tanks
- Engine Gearboxes

Land Defence

- Suspension arms
- Muzzle Brakes
- Lightweight artillery structures
- Armour Protection

Naval Defence

- Pump components
- valves
- on-line fittings
- radar structures
- propellers and propulsion components

Space

- Propellant tanks
- Propulsion nozzles
- bulkheads
- liquid fuel pump casings and impellers
- lightweight structurals

Aero Engines

- Turbine frames
- blades, buckets and vanes
- bearing housings
- inlet and outlet structures

Strategic System

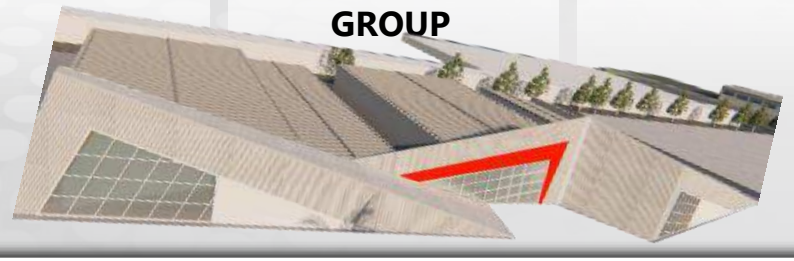
- Propellant tanks
- Propulsion nozzles
- bulkheads
- Pressure bottles
- lightweight structural

PTC & Aerolloy **Technology Verticals**

Industrial Castings	Machining & Assembly	Titanium Castings	Super Alloy Castings	Controlled Microstructure	Titanium Alloy Mill	Super Alloy Mill
Replicast, Rapidcast, Investment Casting	CNC 5-Axis Machines; Assembly shop	Investment Casting; VAR; HIP	Investment Casting; VIM; HIP	Investment Casting; SX, DS, EQ	VAR, EBCHR, PACHR; Forging	Masteralloy VIM, VAR; Forging

INDUSTRIAL
CASTINGS & MACHINING

AEROSPACE
CASTINGS
GROUP



AEROSPACE
MATERIALS
GROUP

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

Developing **Cutting-Edge Technologies**

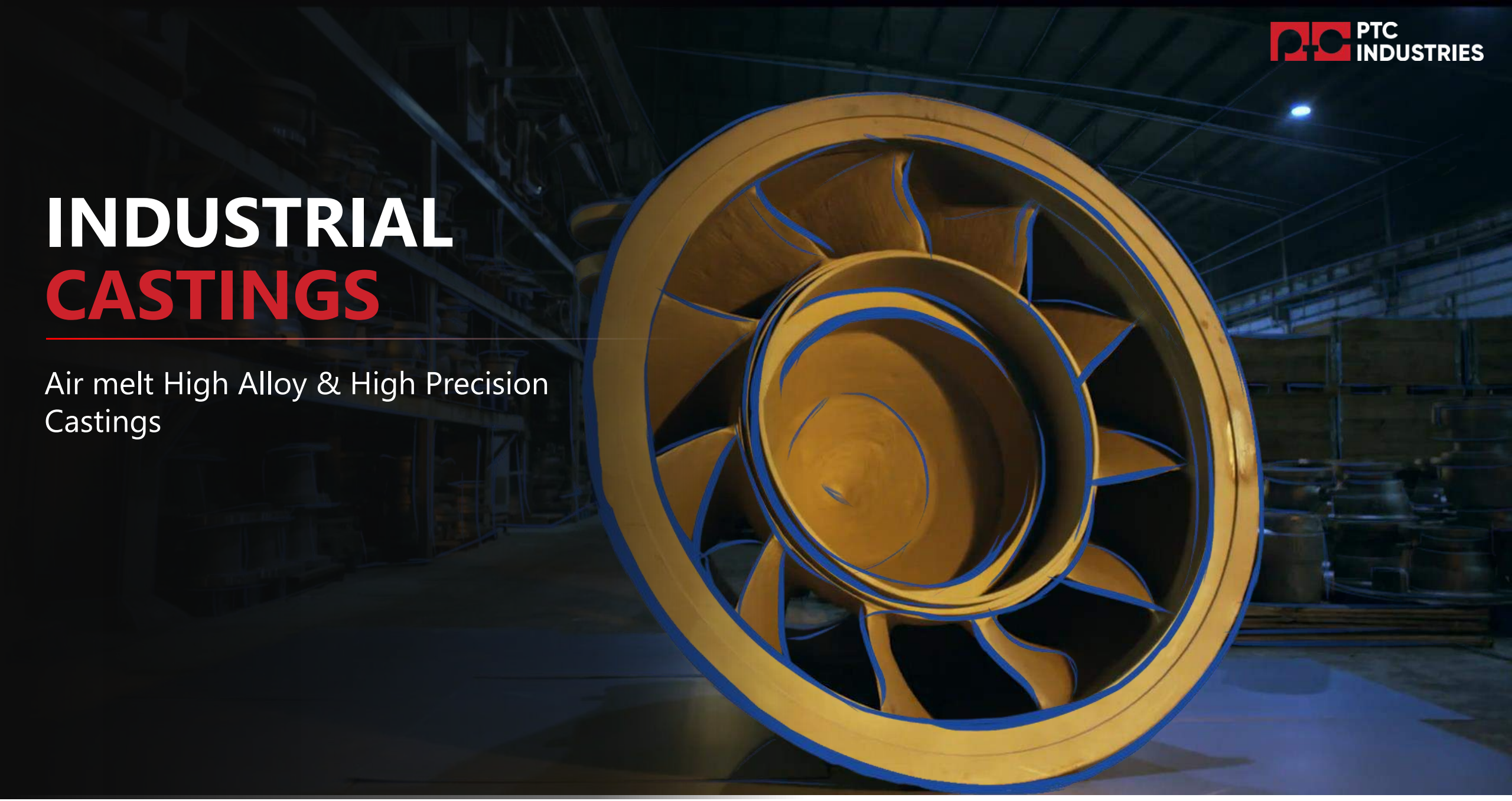
REPLICAST | RAPIDCAST | INVESTMENT CASTING | TICAST | FORGECAST | POWDERFORGE | PRINTCAST | TITANIUM POWDER

PTC INDUSTRIES | AEROLLOY TECHNOLOGIES

PTC INDUSTRIES

INDUSTRIAL CASTINGS

Air melt High Alloy & High Precision Castings



AEROLLOY TECHNOLOGIES

Technology – **Rapidcast, Replicast, PrintCast**

RAPIDCAST

Quality – Value – Speed
up to **5,000 kgs** single piece

7-Axis CNC machining robots
to machine patterns

REPLICAST

Near net shape casting solutions
using ceramic shells with weight
range up to **2,500 kg**

PRINTCAST

Capability to manufacture 3D
printed patterns for utilisation in
manufacturing of castings

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

PTC INDUSTRIES

MACHINING & ASSEMBLY GROUP

CNC & 5-Axis Machining & Assembly

AEROLLOY TECHNOLOGIES

CNC Machining

QUALITY INFRASTRUCTURE

A robust infrastructure that supports high quality and sustainability

Certifications

AS/EN 9100 Approved since 2021

ATL is an Approved Supplier to Israel Aerospace Industries (IAI)

Honeywell

ATL Is an Approved Supplier to Honeywell after completion of NSI Audit and Compliance

BAE SYSTEMS

ATL is an Approved Supplier to BAE Systems

SAFRAN

Safran Aircraft Engines Approval

Certifications

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

PTC INDUSTRIES LIMITED (TESTING LABORATORY)

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

NH-25A, SARAI SAHJADI, LUCKNOW, UTTAR PRADESH, INDIA

in the field of

TESTING

Certificate Number: TC-9119 Valid Until: 22/11/2022

Issue Date: 23/11/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : PTC INDUSTRIES LIMITED (TESTING LABORATORY)

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

PTC GROUP HAVE AN ON-SITE NABL / ISO17025 ACCREDITED TESTING LABORATORY

NADCAP STATUS

Casting Weld Correction	**Chemical Processing**	**Thermal Treatment (HIP)**
Approval awarded June 2023	Under approval - 2023	Under approval – 2023
NDT (FPI, X-ray)	**Thermal Treatment (VacHT&Braze)**	**ISO14001 & ISO45001 (OHSMS)**
Under approval – 2023	Plant Realisation - 2024	Under Implementation – Nov 2023

Discipline Status

Current & Future **Renewable Energy Sources**

GREENHOUSE GAS PROTOCOL

PTC Industries and Aerolloy is committed to comply to Carbon footprint reduction and GHG protocols, in accordance with International standards, meeting the Paris Agreement targets

CURRENT

COP21 CMP11 PARIS 2015 UN CLIMATE CHANGE CONFERENCE

- 750kW Roof Top Solar (AMTC)
- 750kW Wind Turbine (Mehsana)

FUTURE

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- 10-12MW Solar Plant (Aerolloy Metals)
- >50% Energy consumption from renewable sources

Sustainable Metals **Recycling**

Shows that **GreenTitanium®** will avoid **26.4 tonnes** CO_2 per tonne of Titanium produced by recycling compared to traditional methods. The volume of emissions avoided is expected to increase in the future as operations reach their nominal production rate. Using this benchmark at full capacity, Titanium ingots produced by PTC's newly acquired EBCHR further would reduce **132,000 tonnes** of CO_2 emissions.

Roadmap for **Carbon Footprint Reduction**

A:Environments leader (1,5° C /SBTi Validated Supplier & customers involved

A : Scope 3 action plan

B : Scope 3 Measured

B : Action plan in progess on scope 1& 2

C : Action plan defined on scopes 1 & 2 with objectives, schedule, organization, resources& budget

C : Targets on scope 1 &2 defined & communication done

D: Measures on scope 1 & 2 done with validated protocole (as GHG protocol),&verifiedby third party

D: Engaged in decarbonization approach with regular measures

E: No structured approach but wants to implements

E: No structured approach

Land at UP Defence Corridor

2025

Supply-chain involved / Low carbon freight …

2024

Green energy source implemented & /or energy reduction solution deployed …

2023

Carbon reduction strategy defined and targets in line with the Paris agreement

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

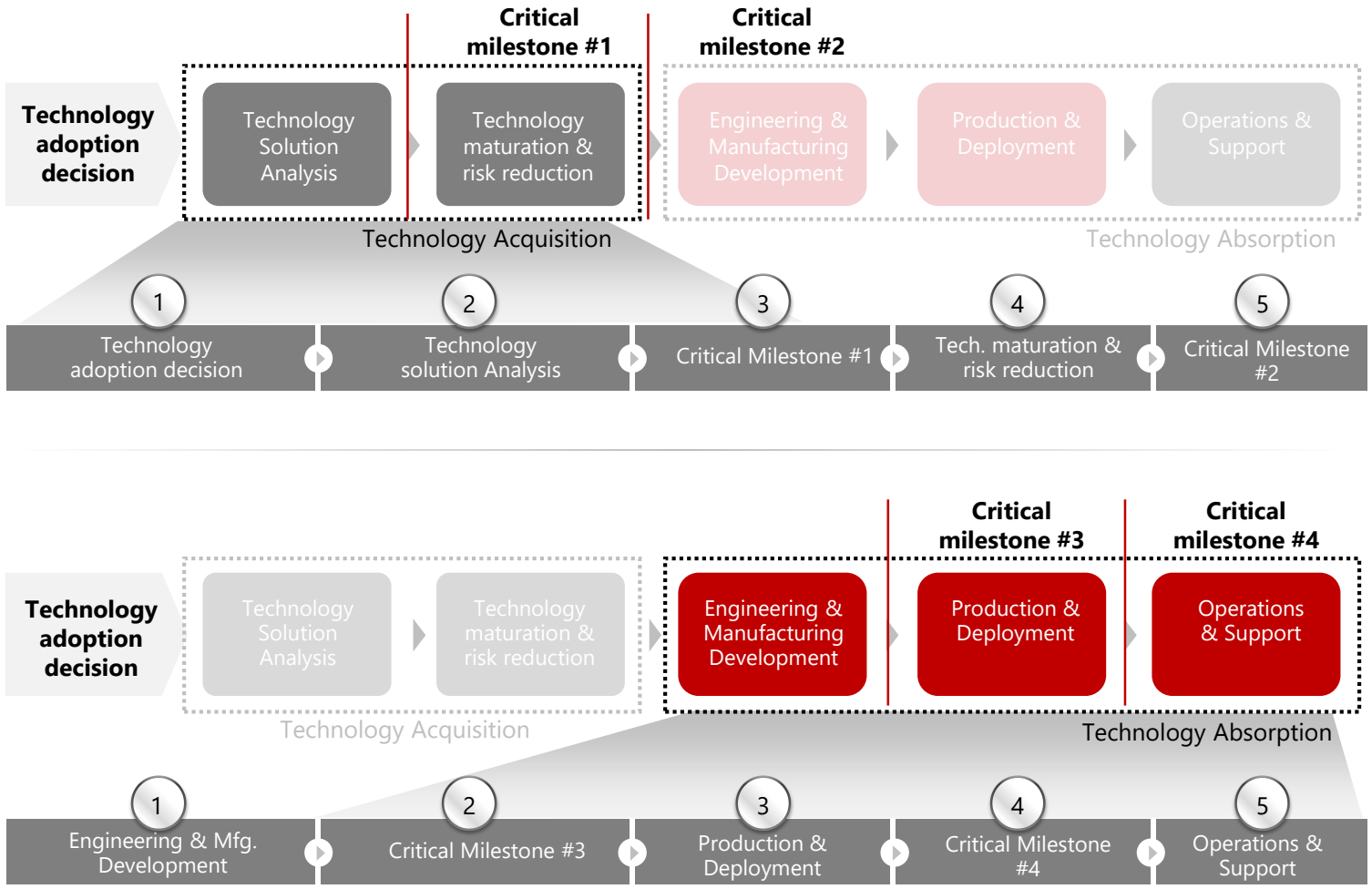
PTC INDUSTRIES

TECHNOLOGY OVERVIEW

AEROLLOY TECHNOLOGIES

Technology Development Process

Readiness Phase	MRL	Product Development Cycle	Stage owner	Definition for PTC
Pre development decision	MRL 1		R&D team under CTO	Documentation of basic idea and identified potential applications and identification of basic mfg. implications
	MRL 2			Technology concept and / or application formulated, and mfg. concept developed
	MRL 3			Manufacturing proof of concept developed
Solution Analysis	MRL 4	Concept Initiation Gate 1 Critical for PTC		Capability to produce the technology in a laboratory environment
Technology Maturation & Risk Reduction	MRL 5	Concept & Technology Development		Capability to produce prototype components in a production relevant environment
	MRL 6	Gate 2 Critical for PTC		Capability to produce a prototype systems or subsystem in a production relevant environment.
Engineering & Mfg. Development	MRL 7	Product Development Gate 3	Technology Development team under CTO	Capability to produce systems, sub systems or components in a production representative environment.
	MRL 8	Product Development Gate 4 Critical for PTC	To be decided	Pilot line capability demonstrated. Ready to begin low-rate production
Low-rate initial production	MRL 9	Initial Production Gate 5	CFT invoicing Technical team (under CTO), BE and Ops.	Low-rate production demonstrated. Capability in place to begin Full Rate Production.
Full-rate production	MRL 10	Rate Production	Operations Team only	Full rate production demonstrated and lean production practices in place.



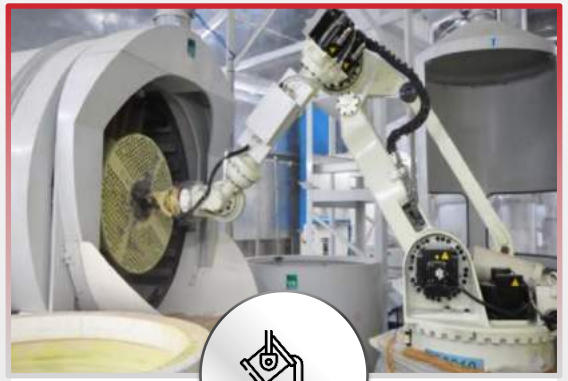
PTC INDUSTRIES

AEROSPACE
CASTINGS GROUP

Titanium and Super Alloy Castings

AEROLLOY TECHNOLOGIES

Technology – Ti Cast, Controlled Microstructure, ForgeCast



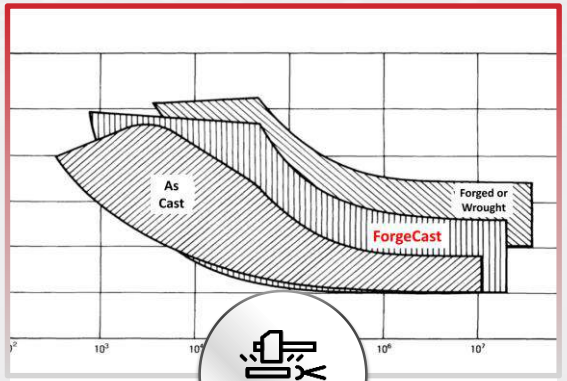
TICAST

Vacuum melt casting of Reactive alloys

Investment casting, PrintCast, Replicast

Controlled Micro-Structure

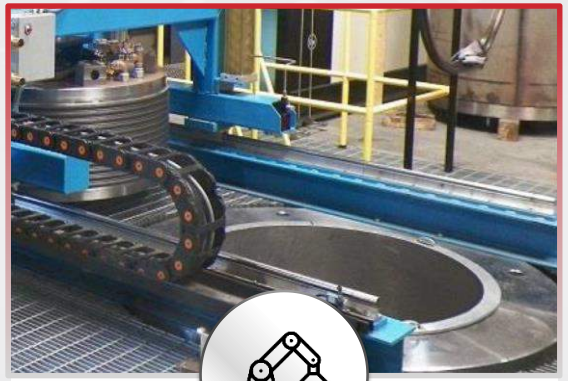
Technology helps to control both the cast microstructure and defect formation



FORGECAST

Where castings and forgings converge

Near net shape castings with forging properties



Hot Isostatic Press (HIP)

Used to eliminate pores in metal components

A must technology for critical components like Aerospace

TiCast - Titanium and Super Alloy Castings

Controlled Microstructure Castings (EQ, DS, SX)

ForgeCast - Hot Isostatic Pressing (HIP)

New Aerospace **Castings Facility**

Aerospace Castings Group – Future Capability & Additions

Large Titanium Casting VAR:
Make: ALD;
400 kgs Liquid Metal

Large Super Alloy Casting VIM:
Make: Consarc
1000 kgs Liquid Metal
Max Dim: 1800mm

Robotic Shelling System:
Make: VA Tech; 1 Robot System;
Max Shell Dim: 600mm (dia)X 800mm (height)

Dewaxing AutoClave:
1200 mm (dia) X 1500mm (depth)

Flashfire Furnace:
1000X1000X1200 mm (Pacific Kiln)

Other major Equipment available

Vacuum Heat Treatment Furnace:
1500 kgs Total Loading Weight

Hot Isostatic Press: Max Temp:
1350 deg C; Max Pressure 137 Mpa; 300 mm (dia) X 900 mm (length)

Dimension Inspection:
1) CMM: Zeiss : 1000X1000X800 mm;
2) GOM – 3D Scanning

Radiography (X Ray):
Digital; Max thickness: 60 mm

Wax Injection Press:
1) 6 Tonne, 1000 cc, 350X350X350 mm;
2) 35 Tonne, 6500 cc, 750X750X750 mm

AEROSPACE
MATERIALS GROUP

UPDIC Campus – **Aerospace Materials Mill**

Titanium and Super Alloy Mill
Ingots, Billets, Rods, Bars, Slabs, Plates

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

New Aerospace Materials Mill

Acquired - Electron Beam Cold Hearth Remelting (EBCHR) furnace and Vacuum Arc Remelter (VAR) through its wholly owned subsidiary "Aerolloy Technologies Limited (ATL)"

Manufacturing Titainum (Ti) Ingots

One of the few global players to have capabilities to manufacture Titanium Ingots

Manufacture Ti Ingots from Recycled / Scrap Titanium

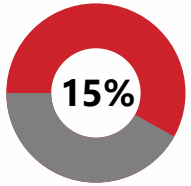
Titanium alloy ingots manufactured by recycling & remelting of scrap have equal acceptability compared to ingots manufactured using Titanium sponge (from ore)

Capacity

The EBCHR furnace will have an installed capacity of 5,000 tonnes p.a. and VAR Furnace will have capacity of 1,500 tonnes p.a. for manufacturing Titanium ingots.

Recent Supply Chain Disruption

Global supply chain, gives strategic advantage of having a facility to manufacture titanium alloy ingots with up to 80% of readily available & cost-effective Titanium scrap is a highly profitable proposition for PTC



PTC will possess a market share of over 15% of the world recycled Titanium Material production

World's largest single site Titanium recycling facility in India

Phase 1: Investment ~Rs. 150 crores

At full capacity: Potential Revenue multiple of 10-15x with robust margins

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

Titanium & Super Alloy Metal Manufacturing

PTC INDUSTRIES AEROLLOY TECHNOLOGIES

Technology – **Titanium & Super Alloy material manufacturing**

Vacuum Arc Remelter (VAR)

A secondary melting process for the production of metal ingots with elevated chemical and mechanical homogeneity for highly demanding applications

Electron Beam Cold Hearth Remelting (EBCHR)

This process is of great importance for the processing and recycling of scrap and waste of reactive metals, especially Titanium

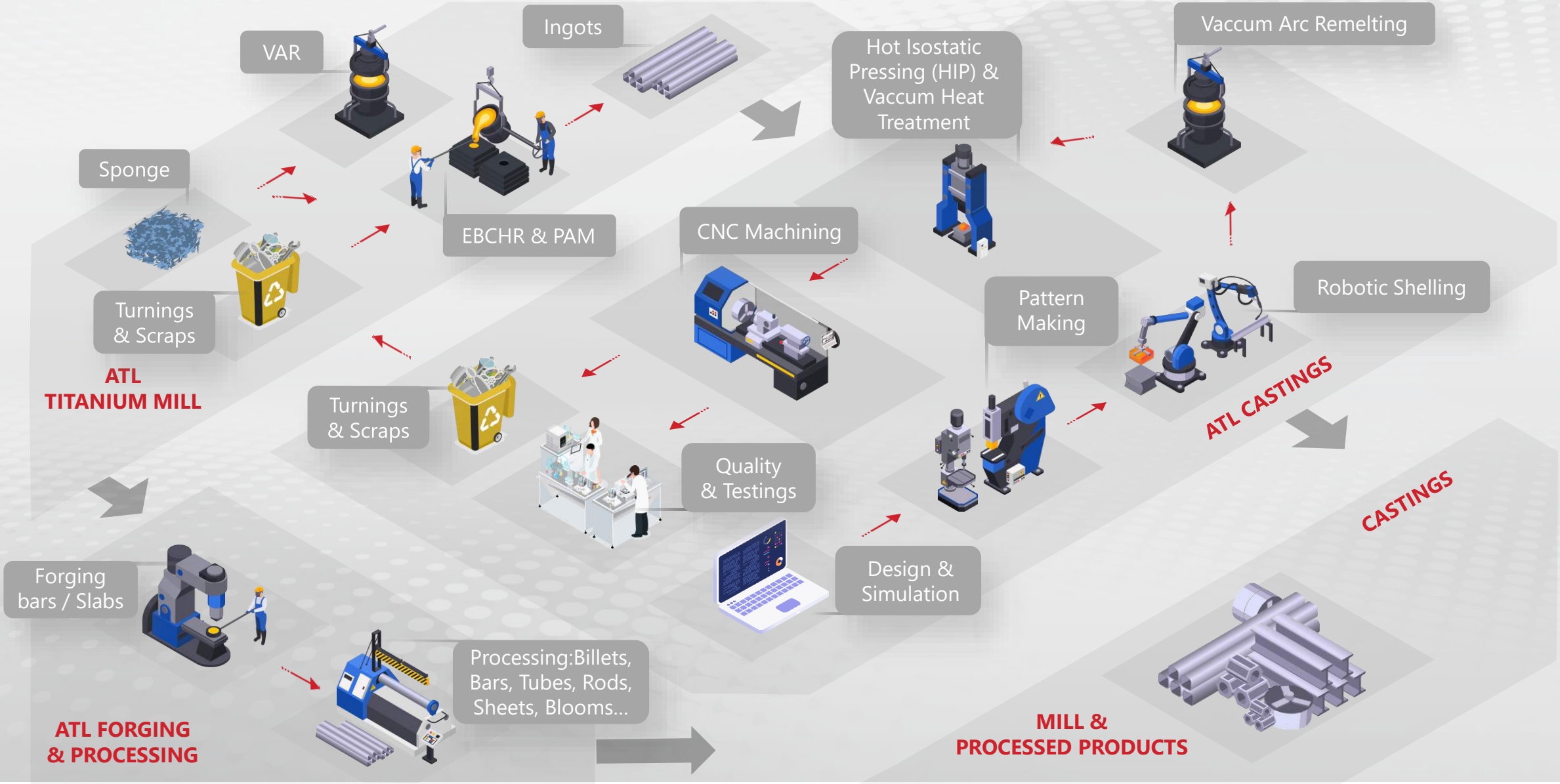
Plasma Arc Cold Hearth Melting (PAM)

Used for melting and remelting of Alloys (e.g. Titanium Alloys) which contain larger amounts of alloying elements with high vapor pressure that would evaporate under deep vacuum conditions

Vacuum Induction Melting (VIM)

A primary melting process for the production of Super Alloy metal ingots with elevated chemical and mechanical homogeneity for highly demanding applications

Sustainability



Products

Titanium and Super Alloy Wrought Products

Ingots, Billets, Rods, Bars, Slabs, Plates

The **Mehsana Plant**

Fully integrated plant for manufacture of high precision castings for a wide range of applications.

Established in the year 2000 as a state-of-the-art facility for manufacture of high precision investment castings, on 72,000 sqmt in Mehsana, near Ahmedabad, Gujarat.

High Precision **Cast Components**

Precision Investment
Castings
&
High Precision CNC
Machined Investment
Castings

85% Exports

Stainless steel, Duplex, Super Duplex, Inconel, Hastelloy, Stellite and other high alloy material grades

&

From a few grams to
over 50kgs weight range

Industry **Segments**

ENERGY

MEDICAL

MARINE ENGINEERING

INDUSTRIAL

OIL & GAS

CHEMICAL PROCESSING

A wide spectrum of industries are serviced with a vast range of products for a wide range of applications making it a supplier of choice for both domestic and international markets.

Medical Implants

Knee Femoral Component

Polyethylene Articulating Surface

Stemmed Tibial Plate

Knee Replacement Market Size

Total Knee Replacement Market Size was valued over USD 9 Billion in 2019 and is expected to grow at over 4.5% CAGR up to 2026. Total Knee Replacement is a surgical procedure to resurface a damaged knee due to arthritis. Growing trend among doctors for using robotics technologies to treat knee arthroplasty is booming.

TOTAL KNEE REPLACEMENT MARKET

2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2028

>$9.0BN — **CAGR (2020-26): 4.0%** — **>$12.0BN**

CAGR (2020-26)

- **6.0%** — Revision Knee Replacement System
- **9.0%** — Technology Assisted Surgery Segment
- **4,7%** — Ceramic on Plastic Segment
- **6.1%** — ASC Segment

Regional Insights

- APAC Market Value (2019): **>$1.7 BN**
- UK Market CAGR (2020-26): **4.3%**
- Germany Market Value (2019): **>$430 MN**
- NA Market Value (2026): **>$5.8 BN**

Total Knee Replacement Market Share - Industry Size Report 2018-...
www.gminsights.com/industry-analysis/total-knee-replacement-market

Source: European Commission

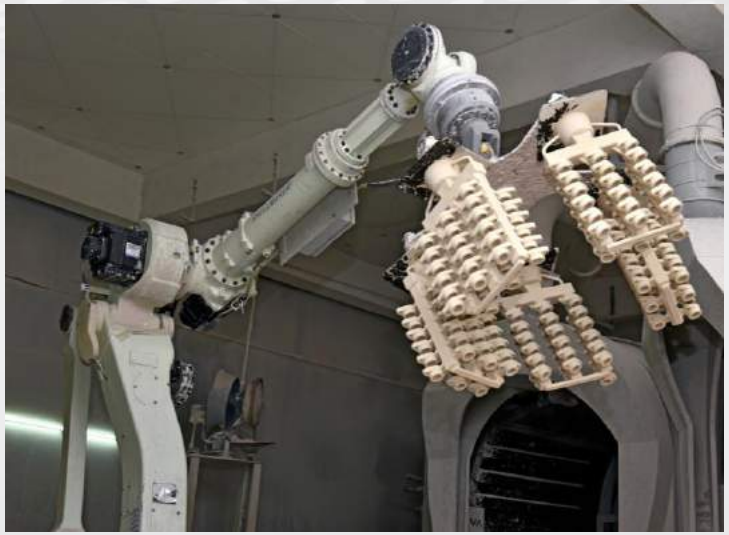
Advanced **Infrastructure**

01 ROBOTIC SHELLING

Robotic Shelling for high consistency in quality and integrity of parts

02 NEAR NET SHAPE PARTS

Complete automation of process for manufacture of high-integrity near net shape parts in a variety of metals



03 LARGE CNC MACHINE SHOP

Fully equipped state-of-the-art CNC Machine Shop with high precision machining capability

04 IN-HOUSE TESTING & LABS

In-house capability for Destructive and Non-Destructive Testing and Quality Approvals

Expansion in **Capacity & Capability**

The capability and capacity of the Plant has been significantly upgraded.

COMPLETED

Melting Furnace - 350 kW
2 Crucibles - 600 kgs each

Shot Blasting Machine

Horizontal Machining Centre - Mazak

Wax Injection Press

Electrical Heat Treatment Furnace

1 CNC Turning Centre

Financials

Q4FY23 & FY23 Highlights

Particulars INR Cr	Q4FY23	Q4FY22	YoY	Q3FY23	QoQ	FY23	FY22	YoY
Total Income	**62.7**	52.7	19.0%	60.9	2.9%	**226.7**	185.2	22.4%
EBITDA	**18.9**	13.8	36.8%	16.1	17.4%	**66.1**	48.4	36.6%
EBITDA Margin%	**30.2%**	26.3%		26.5%		**29.2%**	26.1%	
Profit Before Tax	**11.4**	6.1	88.7%	7.9	45.7%	**33.7**	18.6	81.1%
Profit After Tax	**9.2**	4.6	99.1%	6.1	51.0%	**25.8**	12.8	101.5%
PAT Margin%	**14.7%**	8.8%		10.0%		**11.4%**	6.9%	

Key **Financial Highlights (FY23)**

Total Income

Consolidated	CAGR Growth %
₹ 227 Cr	**9.9%**
Increased by 22% FY22	CAGR (FY19-FY23)

EBITDA

Consolidated	CAGR Growth %
₹ 66 Cr	**23.6%**
Increased by 37% FY22	CAGR (FY19-FY23)

EBITDA Margin (%)

Consolidated	
18.2 %	**29.2%**
In FY19	In FY23

Profit After Tax

Consolidated	CAGR Growth %
₹ 26 Cr	**24.0%**
Increased by 102% FY22	CAGR (FY19-FY23)

Property, Plant & Equipment

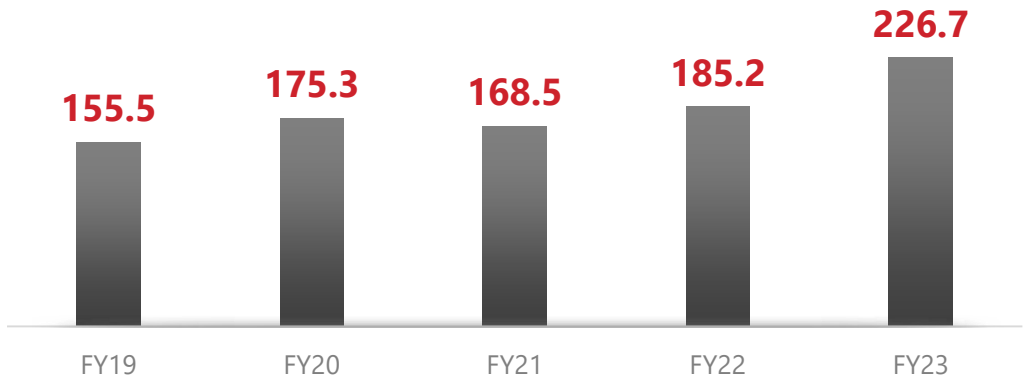
Consolidated	CAGR Growth %
₹ 226 Cr	**15.0%**
As on March 2023	CAGR (FY19-FY23)

Networth

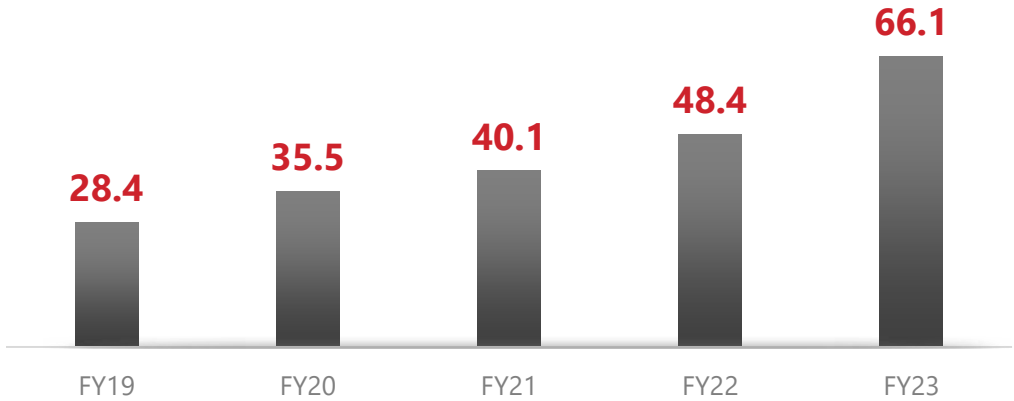
Consolidated	CAGR Growth %
₹ 307 Cr	**21.6%**
As on March 2023	CAGR (FY19-FY23)

Key **Financial Highlights**

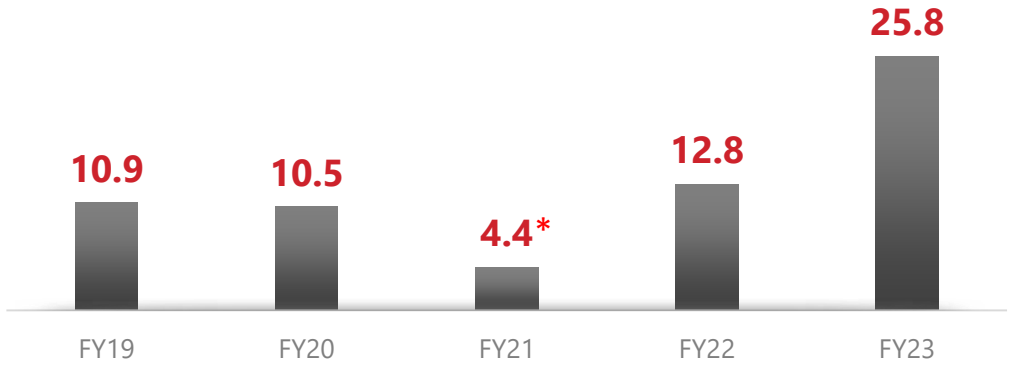
Total Income



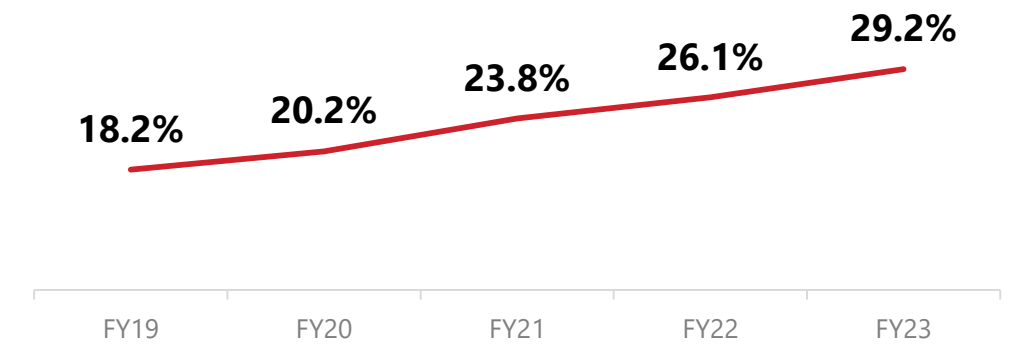
EBITDA



PAT



EBITDA Margin %

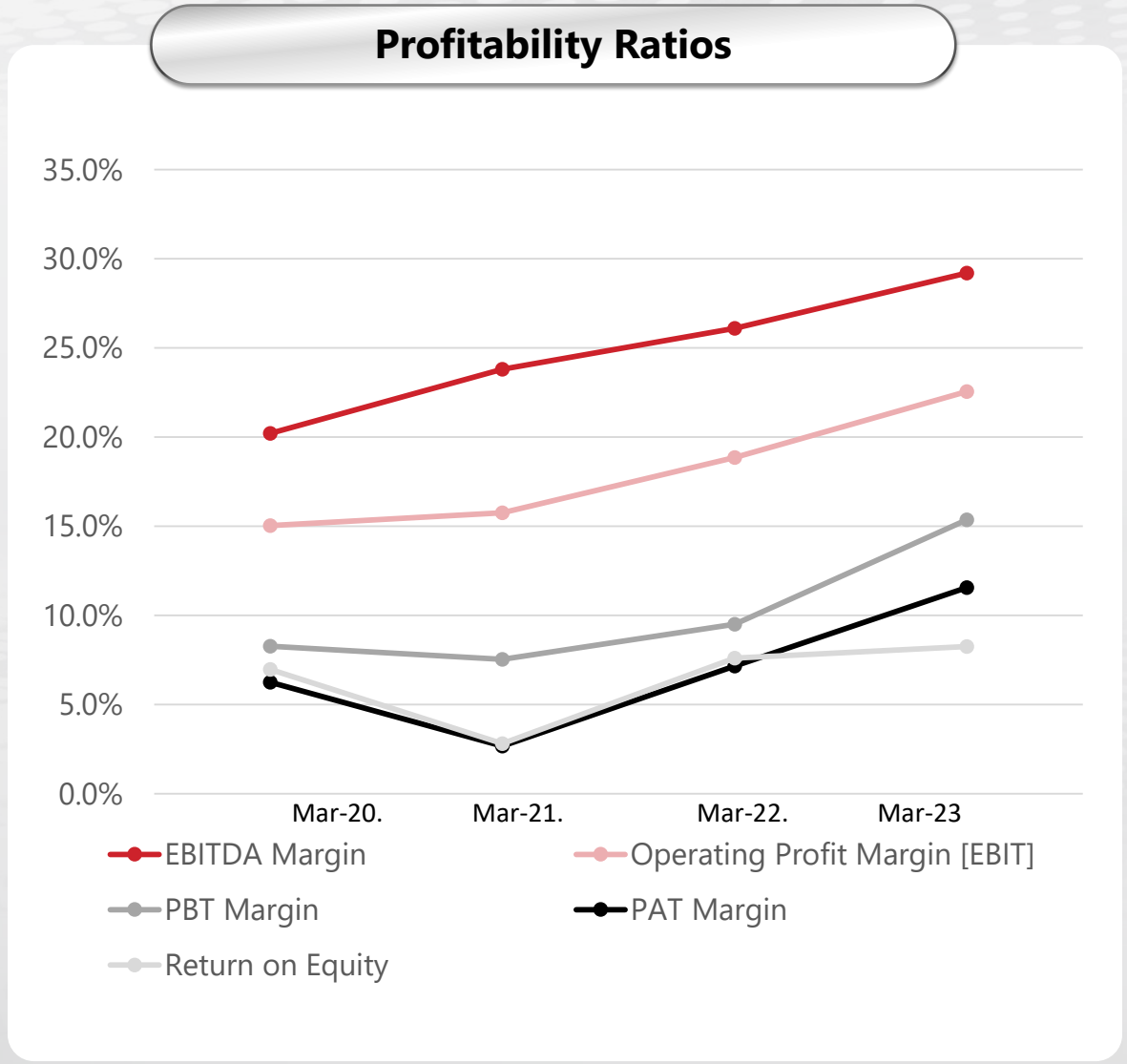


* Impact of switch to new tax regime

In Rs. Cr

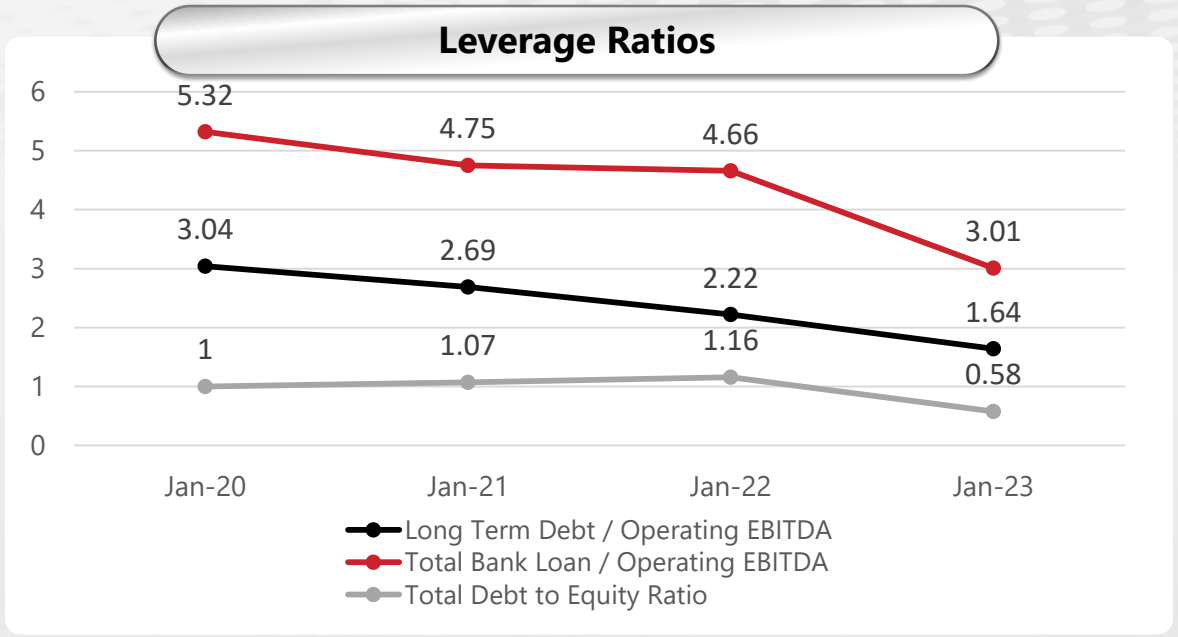
ACCOUNTING **RATIOS**

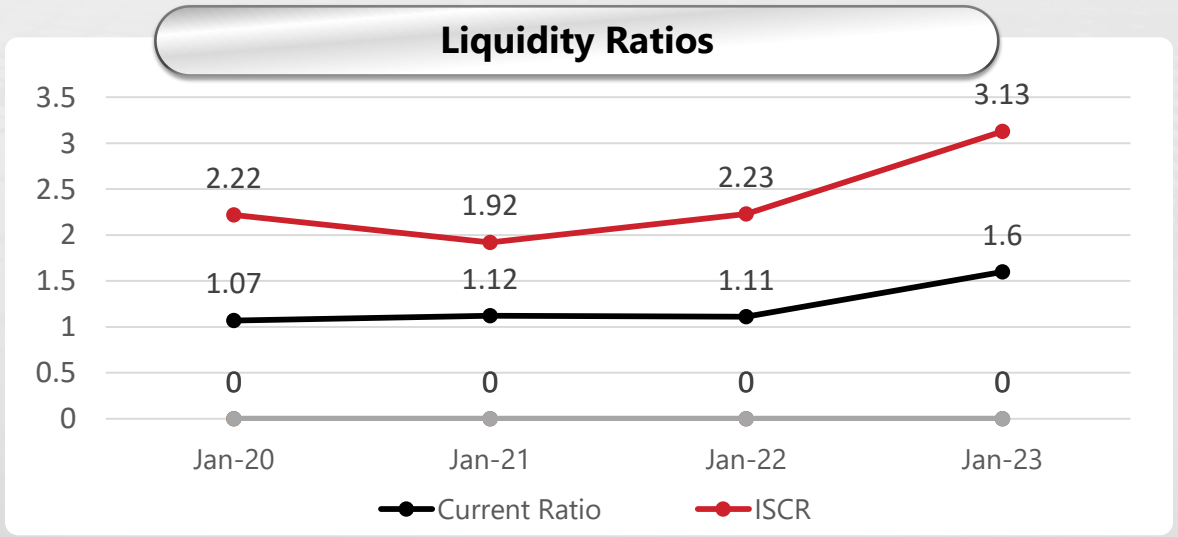
Particulars	As at March 31, 2020	As at March 31, 2021	As at March 31, 2022	As at March 31, 2023
Profitability Ratios				
EBITDA Margin	20.2%	23.8%	26.1%	29.2%
Operating Profit Margin [EBIT]	15.04%	15.75%	18.86%	22.55%
PBT Margin	8.27%	7.53%	9.51%	15.35%
PAT Margin	6.25%	2.67%*	7.16%	11.56%
Return on Equity	6.97%	2.80%*	7.60%	8.26%



ACCOUNTING **RATIOS**

Particulars)	As at March 31, 2020	As at March 31, 2021	As at March 31, 2022	As at March 31, 2023
Leverage Ratios				
Long Term Debt / Operating EBITDA	3.04	2.69	2.22	1.64
Total Bank Loan / Operating EBITDA	5.32	4.75	4.66	3.01
Total Debt to Equity Ratio	1.00	1.07	1.16	0.58
Liquidity Ratios				
Current Ratio	1.07	1.12	1.11	1.60
Interest Service Coverage Ratio (ISCR)	2.22	1.92	2.23	3.13





REALISATION OVER THE YEARS

Particulars	PTC Industries Limited						
	Unit	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**
Total Revenue*	**Rs Crs**	**104.2**	**155.5**	**175.3**	**168.6**	**185.8**	**226.7**
EBITDA	Rs Crs	18.3	28.4	35.5	40.1	44.1	58.6
EBITDA/kg	Rs/kg	**149**	**168**	**204**	**268**	**281**	**380**
Revenue per kg	Rs/kg	**849**	**922**	**1005**	**1126**	**1183**	**1480**

* Includes revenue from sale of products, pattern development, tooling, waste and scraps, export incentives, income from power generation, gain on foreign exchange fluctuation (net) and other income

The uptrend in realizations is likely to continue as it focuses on higher sales of high value-added product segments

Company has in-house pricing mechanism which helps to determine price of the finished products

Regular and repeat parts (supplied for many years) - made with dies using RepliCast or Investment casting technologies

For prototyping or small quantities - made with virtual tooling using RapidCast/PrintCast

Successful Fund Raise to **Fund the Expansion**

Mode of Fund Raise	Instrument
Rights Issue	The company offered **78,58,594** Fully Paid-Up Equity Shares for cash at a price of **Rs 10/-** each, totalling **Rs. 7.9 crores**, and the transaction has been successfully completed
Preferential Issue	Issue and allotment of **2,89,600** Equity Shares and **6,30,170** Fully Convertible Warrants convertible into an equal number of Equity Shares, on a Preferential basis, both at an issue price of **Rs. 2,349/-** per share/warrant, aggregating to a total of approximately **Rs. 214 crores** Issue and allotment of **1,80,000** Equity Shares on a Preferential basis, at an issue price of **Rs. 2,500/-** per share, aggregating to a total of approximately **Rs. 45 crores**

Aggregate Fund Raise

Rights + Preferential Issue

~₹267 Crores

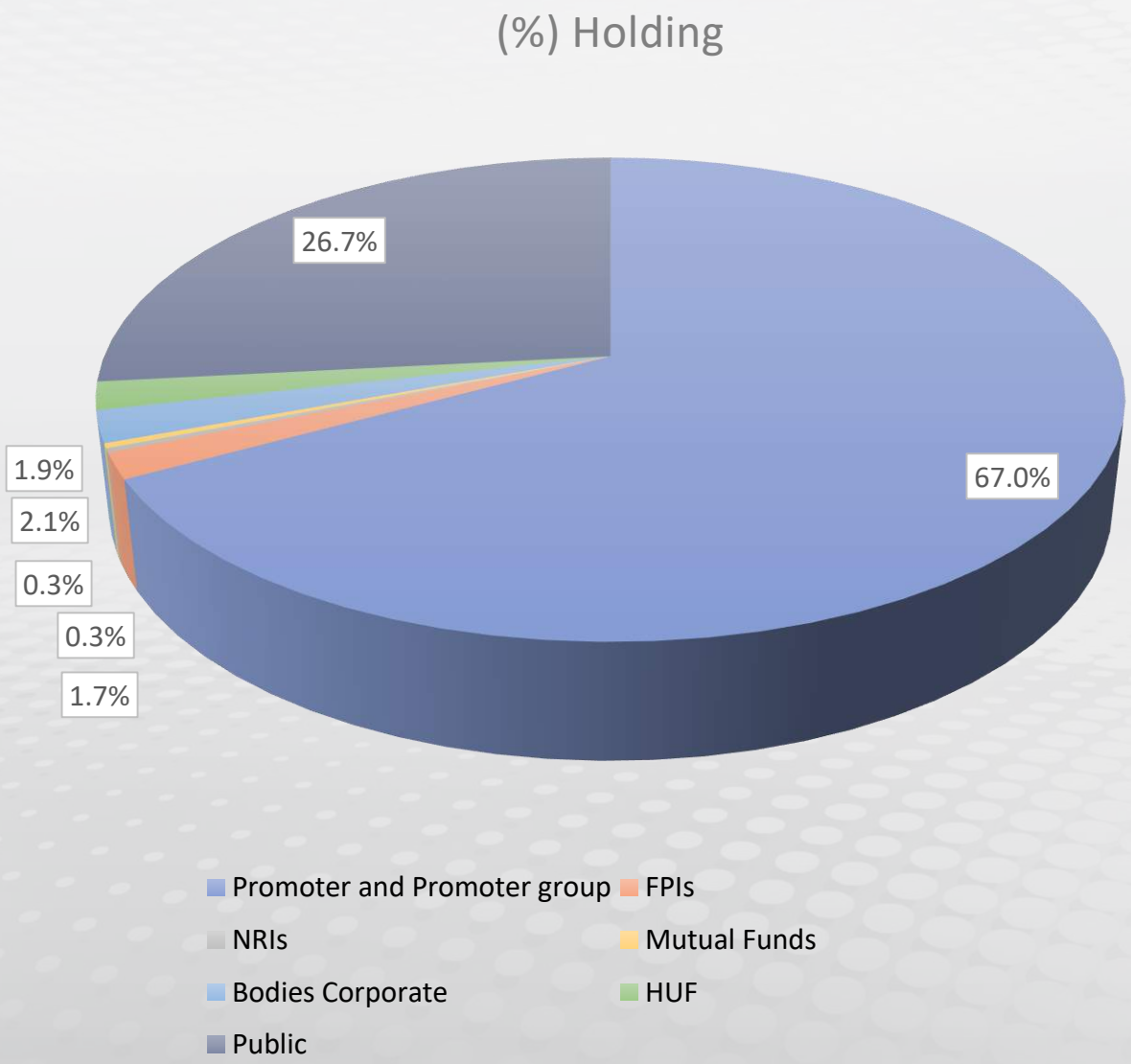
The raised funds are being primarily utilised towards CAPEX funding

NEW PROJECT STATUS

METAL MANUFACTURING AS ON 30TH JUNE 2023

Application of Fund	In Rs. Cr	Sources of Fund	In Rs. Cr
Land & Building with advances	22.68	Promoters' Sources	41.35
Plant & Machinery with advances	42.14	Long Term Borrowings	31.73
Other Fixed Assets	8.81	Others	0.55
Total	**73.63**	**Total**	**73.63**

Shareholding Pattern



Shareholding Pattern (%)	As at Sep 15, 2023
Promoter & Promoter Group	67.03%
FPIs	1.73%
NRIs	0.26%
Mutual Funds	0.32%
Bodies Corporate	2.12%
HUFs	1.86%
Public	26.68%

THANK YOU