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

To,
BSE Limited
Department of Corporate Services (Listing)
First Floor, P J Towers, Dalal Street, Fort,
Mumbai - 400 001.

Scrip Code: 539006

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

Symbol: PTCIL

Dear Sir / Madam,

Sub: Transcript of Investors/Analysts meet held on June 09, 2023.

Pursuant to Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015, please find the enclosed Transcript of Investors/Analysts Meet organized on Friday, 09th June 2023 at Grand Hyatt Mumbai Hotel and Residences, Santacruz East, Mumbai.

The above is for your kind information and record

For **PTC Industries Limited**

Smita Agarwal
Digitally signed by Smita Agarwal
Date: 2023.06.16 17:05:29 +05'30'

Smita Agarwal
Director and CFO
DIN: 00276903

Date: June 16, 2023
Place: Lucknow

"PTC Industries Limited Investor & Analyst Meet"

June 09, 2023

MANAGEMENT: **MR. SACHIN AGARWAL – CHAIRMAN AND MANAGING DIRECTOR**

MRS. SMITA AGARWAL – DIRECTOR AND CHIEF FINANCIAL OFFICER

MR. ALOK AGARWAL – DIRECTOR, QUALITY AND TECHNICAL

MR. P.R. AGARWAL – DIRECTOR, MARKETING

MR. ASHOK KUMAR SHUKLA – EXECUTIVE DIRECTOR

Diwakar Pingle: Good afternoon, ladies, and gentlemen. Good to see a full house and one of those events where I didn't have to usher people in obviously means that there is a lot of interest in the story. So nice to see that. So again, welcoming all of you to the Investor Day event of PTC Industries Limited. We have the business leaders from PTC Industries who will set the context for where we operate and explain the nuances of the niche space that all of you must be eager to listen to and expand your horizons over what is coming next.

Some housekeeping rules, as far as possible try to keep your mobile phone on silent, better if it is switched off, particularly for the speakers. We don't want you answering questions from someone else on the other line. And please request not to kind of stop the speaker in the middle of the presentation. All the Q&A will be done at the end of the presentation. Also, please do not take videos or photographs as the presentation is on.

The presentation has already been uploaded on the exchanges, so you can go and download it there. Kindly request not to take pictures here. And finally, our discussion may include predictions, estimates, or other information that might be considered forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties and that could cause actual results to differ materially.

Your caution is not to place undue reliance on these forward-looking statements, which reflect our opinions only of the date of this presentation. Please keep in mind that we are not obligating ourselves to revise or publicly release the results of any revision to these forward-looking statements in light of new information about future events.

So, we have with us today the senior management of PTC industries represented by Mr. Sachin Agarwal, Chairman, and Managing Director, Mrs. Smita Agarwal, Director and CFO, Mr. Alok Agarwal, Director of Quality and Technical, Mr. P.R. Agarwal, Director of Marketing and Mr. Ashok Kumar Shukla, the Executive Director. Let me just introduce the speaker who will be coming up next on the stage. Under his leadership, PTC has grown at an extraordinary pace. He has worked extensively in the development of new technologies and metallurgies to produce components required for various supercritical applications like aerospace, oil and gas, energy, power, and marine applications.

Sachin's passion has been to bring about real change in the future of manufacturing for metal parts and create a unique capability within the company for the manufacture of components as an erstwhile never been sold from a country like India. His resolve led to several new initiatives in the company including the acquisition of the replicast technology, and the development of new path-breaking technologies like forge cast, rapid cast, and powder forge amongst others.

Sachin has done his Master's in Business Administration from the University of Tulsa, Oklahoma, and an MSc in Finance from the Boston College Masters. Without much ado, it is my honour and privilege to welcome Sachin Agarwal to address the gathering. Over to you, Sachin.

Sachin Agarwal: So, good afternoon everyone and again as Diwakar said, thanks a lot for coming in this number to listen to this first investor meet that we are doing. Today is special because with the stars aligning themselves, today was our company's listing on NSE as well. So, congratulations to all of you. This is a long presentation, so you'll have to bear with me because I haven't shared this much in detail about the company, its work, what we are planning to do in this length and detail earlier.

So, if someone feels a bit sleepy in the middle, please order some coffee. So, we will get started with this. So this you see is our Advanced Manufacturing Technology Center (AMTC) in Lucknow. It was built about seven years back trying to start into a new era into manufacturing by bringing in a variety of technologies under a single roof related to metal and metal components and manufacturing while keeping a very sustainable manufacturing principles as well as sustainable financial aspects of the business. Diwakar has already talked about it, so I am not going to read out the normal safe harbor.

I will start first with the various macro environment or themes that are playing into what we are doing, and how that influences what we're doing. So first, I'm going to start with that. The first one is this global supply chain disruption that has happened in the last three, or four years, especially since COVID, and how that has impacted the overall environment and how that has impacted us.

Secondly, the other macro event that's happening is the war that's happening in Russia-Ukraine war and its implications and third which everybody is aware about is this massive drive by the government to create self-reliance and Atmanirbharta in the country, especially in the area of aerospace and defence. I'll touch briefly on one slide with each of these. So, of course, everybody knows that the manufacturing supply chains have been till date for the last at least three decades have been very much reliant on China.

Post-COVID, because of supply chains breaking down and the country being in a lockdown for a very long duration, many companies have started looking at other alternatives to source its manufacturing requirement. And certainly, India is sitting in a very good spot there. The performance could be a lot better than it is right now, but still, it's not over. It has long-term implications and a massive window of opportunity is still available for that. Russia has been a big exporter of defence equipment and as you can see by this graph, India has been the biggest customer for Russia over the past many years.

Though what you see here in this graph in 2021, from INR 12,000 crores, it dropped down to INR 11,000 crores by a INR 1,000 crores of import from Russia. And the second biggest importer being China. So India's been the biggest customer for Russia for defence equipment, not just at platform levels, but also very much so in materials and component levels. And that's very important to understand that even though when you see that over the last two, three, four years, there's not been any major equipment that's been bought from Russia, but still there's a huge import that's still happening that's in the form of space components and materials.

And again, the second graph shows you how that splits up. Probably it's not that very clear, so I'll read it out. The first one is related to aero engines, aircraft engine related. So out of the total

exports that they do, around 30%, almost one third of their exports is related to aero engines. The other one is again aircrafts or aircraft spares. So almost two-third of what Russia exports and even to India is related to aero engines and aircraft-related equipment, platforms, products, systems, components, spares, materials.

And then there is strategic systems, armoured vehicles and air defence systems. Now the other aspect of Russia-Ukraine war implication which is specifically interesting for all of us is the fact that Russia accounts for a very large product portion of the titanium wrought material and titanium components, forgings. Wrought material when I say ingots, billets, plates, rods. So it has almost 70%-80% of what it produces in the form of raw materials for titanium is exported out of Russia to the West.

Which you would see from these various news articles as well, there is a huge dependence in the aerospace defence and civil on the titanium wrought materials being exported by Russia to the West. So the first article is a Wall Street Journal article which reads out for the people in the back, what it says, the West must wean itself off Russian titanium. Second one says, Airbus says to decouple from Russian titanium in months.

Third one says, Boeing suspends Russian titanium as Airbus keeps buying. Boeing, in their annual report, mentions that most important raw materials required for RS-based products are aluminum, titanium and composites. We suspended maintenance and support for Russian customers and then in spirit of doing the right thing, we had suspended titanium import. Airbus, in its annual report, says part of the titanium used is sourced from Russia, both directly and indirectly through company suppliers.

While geographical risks are integrated into companies' titanium sourcing policies, impact Russia's invasion of Ukraine on companies' ability to source materials and components, and any future expansion of sanctions is being reviewed. So, what's important to note is that in the current sanction on Russia, by the West has excluded titanium from the sanctions. Because almost 40%-50% of all the foreign OEM, large foreign OEM aerospace industries are dependent on Russian titanium.

The third macro theme being Aatmanirbhar Bharat, this everybody is aware of, I am not going to, so one can see by these graphs that the defence production is increasing in India. Even though the defence imports are increasing, so are the projected defence exports are increasing. In the bottom corner, that graph shows how in the last three years, the foreign vendors' imports have reduced, or expenditure has reduced, whereas the Indian vendors' value for defence buying has increased. Focus on the two defence corridors being there, one being in Tamil Nadu, the other being in Uttar Pradesh, defence industrial corridors.

So everybody is aware of, how the government is extremely focused on creating the self-reliance within the country, especially in the defence area. There's another thing which is also linked to this, is that defence expenditure in India is increasing, which everybody knows. But simultaneously also the defence expenditure worldwide is also increasing. India's defence expenditure in the last Union budget was announced to be around $74 billion. By 2030, it is

expected to go up to $183 billion by an outside study, which means more or less 12% CAGR over seven to eight years.

And by 2045, it is expected to go up to $654 billion, which is almost a 10% CAGR over the next 23 years, 20 to 23 years. Now that's the total defence budget, but the capital portion, the capital expenditure portion of the defence budget in the last budget was about 30%, so around $22 billion. If you take the same allocation to capital budget or capital expenditure from the defence expenditure, that translates in 2030 to $55 billion and in 2045 close to $200 billion and at the same time global spending in defence is increasing, especially after the war.

So given all these implications there is an important inference that there is a lot of possibility for growth as long as we have the technology for it. The reason why India has not been able to participate in this defence ecosystem worldwide is as defence supply chain worldwide has been primarily due to a lack of technologies in key areas. And this is where we come in. Our company primarily for over the last 60 years, the company started in 1963, has been in the area of metal and metal components.

And this is what is our playground. This is what our forte is. And that is why around seven, or eight years back, we adopted a very existential principle, our dharma as a company, which is to achieve Parity. Achieve parity in sense of capability, technology, skill, workmanship, talent, knowledge, quality, productivity, efficiency, sustainability, in every way so that we are at par with the best in the world in the area of metal and metal components. And this is our guiding principle, this is what decides which businesses do we get in and more importantly which businesses we don't get in. If for example, metal, steel is also a metal product.

But that's not what we, so we will not start a steel plant competing with the likes of Tata or others because that does not move the needle for the country in the form of parity. We do not improve as a country and we do not fill any gap in technology. So the only thing that we are allowed by our parity dharma principle is to get into those areas in which there is a gap in the country or we are not at par with anyone in the rest of the world in terms of technology, manufacturing technology related to metal or metal components or systems.

So that's our filter, that's our principle, that's our guiding force which tells us everything in terms of what business to be in. What that also does is that it creates a very financially sustainable business. Because if we are going to get into a business that is so unique that no others are getting into it or have been able to get into it for the last 70-75 years in the country, that means it is a difficult business to get in. It is a difficult technology to get or absorb.

And because of that reason, it creates a business that has, comfortable margins over a longer run, over a longer period, rather than getting into a business, something which has initially good margins and then having competitors moving in, additional competitors moving in, having price pressures and then squeezing our margins. So that's a very important principle for us as a company. Now, in the previous slide, I said about technology.

So it has to be the reason why we have not been part of the supply chain, global supply chain, as supply chain at a country related to defence and aerospace has been the lack of available

technologies. But what do we mean when we say technology? What is, how do we define technology? So rather than getting into that integrity, first let's understand what we mean as technology. So this is what I call a technology pyramid.

At the top is equipment and platforms: Airplanes, Ships, Submarines, Tanks, platforms, and equipment. But for those platforms and equipment, you require -- so the platforms and equipment require design and engineering-related technologies or knowledge. Then a Tier below that, so an aircraft might require engines, aircraft engines, or landing gear, these are the systems or products.

These require assembly, integration, and testing-related technologies. Now what is important to note in these two levels is that these technologies are obviously extremely platform and equipment dependent and related. If you make an engine for Sukhoi, that workshop or that factory will only produce engines for Sukhoi. It cannot do anything else. Or you can't start making engines for a ship or some other platform. The same thing happens with the systems as well as for the product related companies or factories. So these are extremely platform dependent.

And the problem in India again, as it has been in the past, is that if there is an RFI that has come out related to equipment, be it a ship or a submarine or a fighter aircraft, it will take seven, eight years before that RFI translates into business if it ever does. And when it does, out of all bidders, 7-8 bidders for it, only one will get the job. So that makes it a very risky business and especially not feasible for a relatively smaller company like ours. The two Tiers below that or the third Tier is related to components or subsystems that go into the manufacturing of the systems or the platforms.

And these require certain core manufacturing technologies. Similarly, the last Tier is related to materials, processing of those materials, those critical materials from which those components, spares, and systems would be made, and for that, you require certain critical materials processing-related technologies. So, the interesting part about these two Tiers in technology as these are platform independent. So, whether if you have a titanium casting technology like we do, it's not only applicable for aircraft engines or airspace, it will apply the same technology will be used for land systems, for naval systems, for every missile space, civilian applications.

So the same technology is used across the platform. So you are, and the same thing happens for materials related technology as well. So that's why it's a platform independent technology, which does not make, which improves the risk profile. And let's, so even if you're bidding for 10 things across the platform, one thing will happen for sure, or multiple things will happen. So that's the main. So if you look for the air defence system, similarly, I'll breeze through this because this is detailing the same thing.

So for aircraft, platform level aircraft, subsystems, propulsion systems, landing gear, for components you have air engine parts, turbo fans, materials, titanium alloys, cobalt alloys, super nickel alloys, micro, control microstructure alloys. Now if you go this much a little bit in detail, there is a full report that is available. So here on the left side you will see what the platform is,

subsystem being in the frame, what component, so their body, wings, tail, nose, and what materials are being used.

And the red ones, titanium alloys and super nickel alloys are used here. So this is just showing as an example for the technology perimeter inside air defence. Similarly for propulsion, the components are fans, compressors, combustors, turbines, low pressure and high pressure and then again, the material that is used for it. Similarly for landing gear. Now this just puts that thing into a more graphical point of view. As to air defence and this is what we will use for the other defence naval and others.

So it shows as a system or as a platform or equipment in which area what type of components and what material of the components are used. The red ones marked here shows all those materials related to titanium, zirconium, nickel alloys, super nickel alloys, cobalt alloys that have implications on us. While we talk about this, at the same time I'll also keep on highlighting certain interesting opportunities that are opening in India or maybe sometimes globally. So there are different opportunities related to us that will have implications for us.

Everybody might have heard about AMCA, Advanced Medium Combat Aircraft that is being built or being thought of being built in India. For which a massive allocation of budget has already been done for the development of aircraft as well as for the engines. And then for various others, for even the existing platforms for Mark 1, about 50% of indigenization has been achieved. For Dhruv Helicopter, more than 56%. LCA 54%. LUH another 52% indigenization has been achieved.

But important thing to note is that currently the Indian Air Force is thinking about acquiring 20 new squadrons over the next few years. And each squadron is about 18 aircrafts. So that's a lot of aircrafts, fighter aircrafts to be acquired over the next few years. So there's a massive budget. HLS recently got an order for $8 million-$15 million. So, all these things you probably are aware of, which has been in the news. Similarly, this pyramid talks about the strategic defence systems, mainly related to the missile systems.

And similarly, you have the platform level and we are at the component and material level, slowly pushing into the subsystem level. Again, titanium alloys, straight-strengthened steel alloys, tungsten, these are the materials that we are manufacturing and components that we are manufacturing or developing. So again, you see the same breakup for a missile system which I showed you for the air defence. What does go in at various places in a strategic systems, what materials and what type of components.

The opportunities that are there in the missile defence systems or the strategic defence systems. There's a massive spend allocated for strategic defence systems over the next 10 years. And many programs, and some of these you can read here, but many programs of various defence strategic defence systems, are being going on, many of which our company has been part for the development part. Not many have gotten into production yet. Many will go into production over the next, between next 2 to 10-15 years. And it's important for us to be part of those while the development phase is going on for these systems.

We are already a supplier to the Brahmos, or supplying of titanium parts to Brahmos, and that's already into manufacturing production. Air defence systems, similarly, same parameters, and here again high-strength steel, titanium alloy parts, structural parts for ultra-lightweight howitzers. Same breakup for all these. There's a lot of advantages of using titanium even in artillery guns and in land systems even.

One of the biggest examples being the M-777 howitzers. The ultra-lightweight howitzers that was supplied to the Indian Army in the last 4-5 years by BE systems. And what's important to note of a few things that the, now this M-777 ultra-light howitzers, or the ultra-lightweight howitzers as a category has been put on the negative list, so it cannot be fully imported now.

Last time India bought 145 of these ultra-lightweight howitzers for a size of around I think $7 $8, $15 million dollars and this was in 2016 when the order was released. But there's an advantage with this gun because compared to other towed guns which weigh between 14 to 18 tons, this gun only weighs around 4.5 tons, gun meaning an artillery howitzer.

And therefore, it is very portable, mobile. It can be picked up by a helicopter and dropped at any location. So it doesn't need any terrain, roads, or infrastructure in that manner. So it's extremely lethal in that sense and strategic in that nature, especially for Indian northern borders.

And we have more slides coming on where we'll talk to you more about that later. Again similar aspects related to naval defence systems where we are manufacturing valves, pumps, water jet engine parts, propellers, online fittings in titanium alloys, super duplex alloys, duplex, and aluminium bronze. These are the materials that we are producing and the components. And you can see that over here, both for ships as well as submarines.

And again, especially with the Indo-Pacific area becoming very, very important for globally and the forward getting formed, there's a huge amount of spend that is going to happen in the naval area for the naval defence in India.

One important, again, is the area which we kind of leave out when we talk about defence and aerospace. We leave out the civil aerospace business. But again, civil aerospace, as everybody understands, is an extremely large business worldwide. Some of the components that you see which we are developing.

It is expected that in the next 20 years, over 40,000 aircrafts will be needed, 42,000, 43,000 aircrafts will be needed, which equals to a value of $6.3 trillion. And it shows that in India, Tata recently placed an order for 480 airplanes in one order. Indigo is being talked about placing another order of 400, 500 planes. And that's just in one year. Over a spread-out delivery, but that's just from one country in one year. So there is a massive increase in the civil aerospace business that is being thought of currently.

Another aspect of this is that, as everybody knows, probably might have heard in the news, is that China has developed its own civil aircraft. Russia has done the same. So till this time, there was a supply chain being in China for companies like Airbus and Boeing, and Safran, and GE, and Rolls Royce made sense, because that was a big market. But now that is going to shrink, because the projections are, if and when, not when, when China starts buying its own made

aircrafts, then the market for the biggest market for the current biggest OEMs, Western OEMs, is going to be India.

And for them, setting up supply chains in India will be as important. So that's a very big area that's coming. And again, as I mentioned earlier, the lack of technology in the country is what has been the reason for India not being a reasonable or significant portion of the supply chain till now.

Another market segment being aero engines and gas turbines, and again, extremely critical technology, but this bottom chart, probably not everybody can see from the back, but if someone can see, you can see that all the red part in that is nickel superalloy, and all the blue part in that is titanium. So that's a standard material composition of an aero engine. So a huge usage of these type of materials and components in aero engines.

Similarly for industrial gas turbines, that's another very big area that's evolving. And again, similar usage of super nickel alloys for turbine blades and other materials as well. Huge opportunity in the Indian aero engine business that's opening over the next, again, 10-15 years.

All these talks that we are talking about, India developing its various small-size and medium-size aero engines from turbofan engines to dry, which was exhibited in the Aero India show last time, where one of our oil tank assemblies in medium titanium was attached to it. Many parts, again, titanium superalloys, difficult materials, difficult component manufacturing technologies, core manufacturing technologies being used to make the components for this.

And then another one that we've added is related to medical. Of course, that's not aerospace and defence, but again, as I mentioned, getting these core manufacturing technologies allows you to be a cross-platform company. And so it has, again, applications in knee replacement, in other medical related activities. That's a very sizable part of the business. India as a market is very huge in it, especially with the couple of years back, two, three years back when India, Indian government-imposed price ceiling on medical equipment.

Till now, almost every knee joint was being imported, but now because medical equipment comes under this price ceiling, they'll have to be made in India, otherwise costs won't hold from importing from Europe. Again, a big billions of dollars of business. So just to put that in a summary, this is a 360 degree business going cross-platform, across all platforms that are there, right from all defence platforms to civil aviation to medical, cutting across all. So developing technologies for these applications, critical applications is what is forced upon us by the parity dharma that we imbibed a few years ago.

Now coming a little bit more about us now, moving from the deal schemes to what we do, we are a technology driven company, a manufacturing technology driven company. And our business is divided into these technology verticals. First one being industrial castings, which is again for critical and supercritical applications, not general, commercial, low value castings. And machining capabilities and assembly.

Third, that comes into our industrial castings and machining group. Second group being our aerospace castings group, under which we have titanium castings, super alloy castings, and

micro-structure castings. When we say micro-structure castings, what we mean is single crystal blades, directionally solidified blades, and equiaxed blades, these types of castings are again, very few companies and countries have this in the world.

And then the third group is our aerospace materials group, under which we have titanium alloy manufacturing mills and super alloy mills. Now we will try to go into that a little bit deeper, but before we do, as I mentioned, we are a technology-driven company and the question comes is where do you get all those technologies from? Most of these technologies are either developed in-house, or learned from various places, but are not bought as a single piece.

We buy technologies in bits because no technology is one single technology. It's an integration of multiple processes. So we try to find what's the, for part of those processes, which process is best with, get that bit, and then piece that technology together. And for that reason, we have our own technology development process and we have what we call a manufacturing readiness level, starting from MRL1 or Manufacturing Readiness Level 1, all the way to Manufacturing Readiness Level 10.

And this just gives you a summary of how we go about it in developing the technologies and translating them into a manufacturing setup for production. But before we do, Jim is the head of our technology and innovation. He couldn't join us today because we are exhibiting next week at the Paris Air Show, so he's going there for some work and get things started. But I've got him to record a message for you. So maybe that's another two, three minutes. Let's hear him out.

[Video Presentation]

So you heard a lot of names related to technology which I will explain a little bit later on in my presentation. So again, there is a lot of development related to manufacturing technologies that are going on. And we use a lot of advanced manufacturing practices in-house. CAD, simulation, techniques, and 3D printing capabilities. All those industry 4.0-related things are being employed for manufacturing.

So as I showed you in the previous couple of slides back, those technology verticals, we start one of the first ones was related to industrial castings. So we'll talk a little bit about those industrial casting capabilities within the company. Where we manufacture primarily air-melt, high-alloy, and high-precision castings for large, small to large parts. And within this, we have our replicast, rapidcast, and investment casting-related technologies which we, the replicast were first initially acquired from outside, and then the rapid cast was developed within the country by ourselves to making the world's largest investment casting.

So again, massive use of automation in all the manufacturing processes, use of robotics to improve the manufacturing process and to also make a highly consistent and repeatable manufacturing process which is what's required for such demanding, in products for such demanding applications. This being the world's largest robot, stands six meters tall and is among the only three or four that exist in the world.

So a lot of that engineering work for making such type of equipment, machines, which are not standard machines which can be used, and engineering of those is all done in-house. Some of

the components across various, within the industrial vertical we have multiple industrial applications, right from oil and gas, LNG, food processing, pulp and paper, power generation, all these, and they have different products within our portfolio.

I'm not going to read that. Petrochemicals, marine. Then comes to our aerospace castings group where we are primarily manufacturing titanium and super alloy castings. Here in this vertical, we are using die-cast or titanium casting and reactive material casting technologies, controlled microstructure technologies, forged cast, and hot isostatic pressing technologies.

Again, all these have been pieced together by either developed in-house or acquiring parts of those processes from different other places and then piecing them together using our technology development process which I showed you going from MRL1 all the way to MRL10.

Again, state-of-the-art infrastructure that has been created. The most important to note here is that over the last six, seven, and eight years, the company has been focused primarily on capability development. So the majority of the investments that happened in the last seven, eight years, which runs into around Rs. 350 crores, excluding what we spent on R&D, that's the capex that we did on plant and machinery, that was all family spent on capability development, creating the infrastructure and the ecosystem in-house because none of these capabilities that you see here are available in the country. So everything had to be created.

We couldn't outsource anything. So everything had to be done in-house. So getting these titanium and super-hard casting from different places and piecing them together with Jim heading that part of the business, driving that, has been where the primary focus has been to create a capability, demonstrate to different Indian customers, get qualifications, certifications, product approvals, trials. All those activities, which take a lot of money and time, are what was done here. But again, that was titanium casting. This is your controlled microstructure casting technology.

Again, you see this, what goes on in the jet engine, these wings, blades, these are supposed to be working at extremely high temperatures, over 2,500 degrees Celsius. That's why a normal metallurgy won't work and that's why you need the way of manufacturing, the way of making the casting is to make it resistant to these temperatures and such critical applications, demanding applications is by modifying the microstructure or controlling the microstructure of the casting while it is being made. That's again a very unique technology. Very, very few companies and countries have this technology.

The same goes for titanium as well, which I showed you earlier. Hot isostatic pressing is a very integral part of all these casting technologies. Again, this capability didn't exist in the country. And without having this infrastructure capability within the country, you cannot make any castings or supply any castings to the aerospace, for any aerospace application, whether civil or defence.

So it's an important piece of infrastructure. And again, the only, this is one amongst the five largest sorts of isostatic presses that exist in the world. It's probably the only commercial size of

isostatic press that exists east of Germany and west of Japan, barring China and Russia. Again, which I showed you those defence and other verticals earlier in the market-related slides.

So what all the different products have been developed over here, right from land systems to air defence to naval to strategic systems, civil aviation, aero engines, medical, all these use those technologies which I mentioned earlier, related to titanium casting, super alloy casting, controlled microstructures, hot isostatic pressing and forge casting.

Now, this is what we have already done related to castings, which I mentioned to you earlier was, the previous seven, or eight years were related to capability development. Now, once we have proven all this, we have earned the faith of the customers and the trust of the customers, not just in India, but abroad with companies like Sarsawa and Dassault, BAE Systems, Israeli Aerospace, and Honeywell.

Now, what we are doing now is investing in capacity. Now the scale-up is happening. And this is a new campus that is, and for that, everybody over here, hopefully, you would have read our press release earlier this year, or the previous year, in fact, where we had acquired 50 acres of land in the UP defence corridor, right next to the, in the north of the UP defence corridor, right next to the Brahmos land. So, Brahmos got 200 acres, and we've got 50 acres. And this is quite convenient for us also because this facility is only around five, six kilometers away from our existing facility in Lucknow.

And this is the new building that is being constructed for the expansion and scaling up of our aerospace castings group, which includes titanium and super alloy casting, and microstructure castings in this new 50-acre land, which will be spread over. So the built-up area for this is approximately 15,000 square meters. And this, again, will be housing state-of-the-art facilities.

Again, you see this, this is the 50-acre land, and this is where this castings building is going up, aerospace castings building is going up. And this will be getting, besides many other things, just some salient equipment, important equipment is getting these titanium casting furnaces, really large ones, so we are not just increasing the scale in terms of production and capacity, but also increasing the scope by having a bigger, wider net, or the size of parts in titanium, in titanium casting that we can make.

So that will be probably among the top three, four, five casting furnaces for titanium that exists by being able to have a metric capacity of over 400 kps, with an annual capacity of over 300 tons of titanium castings. Another very large vacuum induction moulding furnace, this again, for superalloy casting, so that VAR is related to titanium casting, we call it Vacuum Arc Remelting, and VIM is Vacuum Induction Moulding, which is used for superalloy casting.

And again, this allows us for melting up to 1000 kgs, a real length of parts, again a capacity of 300 tons per year, with dimensions up to almost close to two meters. And why it's important to know these dimensions as well is, as I mentioned, the rapid cast casting that we developed earlier, a few years back, for which we got the national award for R&D from the government of India, about 10 years back, 10-12 years back, is the same technology that we are employing here to make really large investment castings.

But now, rather than for use for industrial applications, which we have been doing for the last 10-15 years, now we're using that same part of technology, combining it with the titanium and super alloy casting technology, to make really large titanium and super alloy castings for aerospace applications. So, a new large vacuum heat treatment furnace, and a plethora of many other new equipment that is going into this facility for the scale-up. It will be one of the most unique ones that will exist in the world.

So, the industrial castings group, aerospace castings group, comes to the third one, which is our aerospace materials group. And here, we, again, the parity dharma that we employ, told us not to get into making materials for steel, or these types of aluminium, but get into, for those materials, which currently are not being made in India, or if they are being made, not being made to the right quality, or to the right size, or for the scale.

So, here we are going to make titanium superalloy material, and when we say material, I mean rock material, like ingots, billets, rods, bars, slabs, and plates. And this, again, is the plant that you saw earlier, which is being built for that. And, again, in that same 50-acre land, this is where it will go. This is the casting plant and this is the material plant.

So what's interesting in this is also which I again will talk about later and I think we already talked about in the previous slides what kind of opportunity is getting opened up because of all the global aspects and there's a massive interest, eager interest in sourcing titanium from India and finding an alternative to supply from China and Russia, especially for a majority of the foreign audience. And more importantly also India as well. India also has a huge demand for it.

Once aircraft manufacturing and all these different expenditures in India increase, the requirement for titanium is going to increase only. And currently, India imports approximately between 800 to 1200 tons of titanium every year but that's without having any major platforms being built either for air, naval, or land or strategic systems coming into production or being built. And once those come into production, the titanium demand in India is supposed to skyrocket.

So again, this titanium material manufacturing or metal manufacturing basically can be made by three technologies, and each technology, three different technologies and each technology has its advantage, pros and cons and all of them have certain advantages which India requires and what strategically we should have. And that is why what we have done is that we've gone and acquired all these three technologies and equipments for all those three technologies which are going into our titanium plant.

These technologies are vacuum-up remelting, electron beam cold hard sheet melting, plasma cold melting, and for super alloys vacuum induction melting. So basically, this covers the entire gamut of making titanium and super alloy materials. And here you can see that this is for our vacuum induction melting equipment that we are buying.

Again, an annual capacity of around 600 tons to make rock materials for VIM. But here how we have placed ourselves differently is because we didn't want to produce. There are other VIMs

which are being used for making low-value products, but they are of very high capacities, 10-ton, 20-ton capacities, and melting sizes.

We have gone for only a 1000 kg furnace because that allows us to make very special materials, very intricate materials. That's where the gap is. It's not in those high-volume production materials that are used in not-so-critical applications but the gap in the country is related to those supercritical materials that are used for making a range of parts, that are used for making parts for gas turbines, that are used for making turbochargers for the auto industry, that are used for even electric vehicles as well. So that's our one big investment.

Then the VAR, this is related to titanium. The previous one was related to superalloys. When I say super alloys, it's primary nickel and cobalt-related super alloys, base superalloys. And this vacuum-up remelting again is an equipment that is used by converting titanium version material or made from ore into titanium ingots and then subsequently billets and other rock materials by remelting it. So it uses fresh new material.

Again there is a gap in the country for this, for which we have gone with this technology because certain applications require double melts and one of the melts has to be with VAR. But it still creates a problem because majority of the titanium sponge production which is made from ore is in Eastern European countries or ex-CIS, ex-Soviet Union CIS countries, Ukraine, Kazakhstan, Uzbekistan, Russia, China or also in Japan, and Saudi Arabia.

But there is a certain capacity. This is why the Russia-Ukraine war has become a squeeze on the supply of titanium sponge and that again will be a risk in the future. So just using another reason being that in the aerospace business, generally the buy to fly ratio, that is if we buy, the buy to fly ratio in aerospace is generally around 10 to 1 or at best 10 to 2.

So that means if you buy 10 kgs of titanium material or use 10 kgs of titanium material or superalloy material, you will only fly, what will go on the plane will only be 2 kgs or 1 kg. So the balance of 8 or 9 kgs gets scrapped or wasted. So that is a huge amount of waste that is getting generated. And titanium has a problem that normally like the steel that any scrap or anything that you don't have, the same thing you see in the steel industry, nobody makes, and very few people make steel with blast furnaces now.

They are making it by converting scrap steel back into usable steel. But that's not that easy in titanium. You can't take scrap titanium and convert them to aerospace-grade titanium again very easily. And that is why even though this has a capacity of around 1500 tons per year, the bigger capacity that we have bought is the electron beam cold hard re-melting furnace or refining furnace.

And that's a capacity in excess of 5000 tons per year. So what we can do with this and what this technology and equipment allow us to do is to be able to re-melt waste and scrap titanium back into aerospace-grade titanium material in the glass slabs and everything. And that's very important. And also more important for civil aviation. Because all the civil aviation industries are having the Paris Accord, the directives whereby 2030 and by 2040 they have to achieve certain carbon reduction.

And to one study, what we call this is now green titanium, like green hydrogen. And by producing titanium using this cold hard re-melting capability, you could save for every ton of titanium made from fresh material versus made from this recycled material, you could save 26 tons of carbon emissions per ton of titanium material produced.

So, over a capacity of 5,000 tons, which we have, that's basically a reduction of over 130,000 tons at full capacity, 130,000 tons reduction in carbon emissions annually. I'll just go back here a little bit because I missed this one. And the third technology that we have used is this plasma hard -- coal hard refining furnace. And that is, again you see, it has only a very small capacity of 200 tons compared to 5,000 tons and 1,500 tons because this is only to make very niche-specific alloys in titanium, which this technology allows us, as well as to help us recycle our own casting materials back into our own reusable so to bring our costs down further.

So this whole thing that we have created with the four equipment and casting manufacturing and machining capability and metal recycling creates an extremely great sustainable closed cycle loop within the company, which where we are able to manufacture the parts, whatever waste comes out, goes into the titanium mill or the vacuum induction mill, super-mild mill, gets forged, whatever waste goes out, again gets converted over there and then converted into casting and products and mill products. A very important aspect of the business. Again, added certain more equipment related to the forging of these raw materials into bars and rods, some of the raw products.

And so making the castings, net-shape castings, raw materials and then we also have a very impressive machining capability where we have a lot of five-axis machines, not just for the industrial part but for aerospace part, to be able to provide ready-to-fit solutions for the customers. Amongst the largest five-axis machines that exist in the country, we have a great piece of infrastructure that already exists there.

So again part of this group of our machining and sub-assemblies group, assembly group, is also where we have tied up with the systems to not just manufacture what you see in the yellow part are all those castings that we have started. So this is the M777 slice in the middle half. So you have to imagine another half of this. So the yellow parts are the castings that we have already developed and some of the grey parts are which we are currently under development. The long thing is the steel barrel.

So the rest of the structure is entirely made out of titanium and that's the reason why it's ultra-lightweight. And now we have signed up with these systems to not just make the castings but assemble and fabricate and weld them together to make the entire structures for the gun, for the M777 ULH, which is a big thing for which a separate plant is being set up where their plant in the UK has been shut and the equipment from there related to assembling and welding these together is being moved over to us.

So that's all our technology aspects. So now we'll get a little bit about the history and about the company a little bit more. So the company as I mentioned, was started in 1963 by my father, our bade sahab, we call him everybody, Late Mr. Satish Agarwal and his friend Mr. Diwakar, who is also here today. And it was a long time back it started as the first investment casting foundry

in the country. So the genes – the DNA of the company from the start was to do something first and that again started with import substitution and in the very early 1980s became the first, amongst the first companies to start exporting industrial castings, not commercial grade castings, not man-hole covers but engineered castings to America and Europe.

Got a lot of export awards for that and then in 2000, we acquired the replicas technology and then in 2007, we got a national award. And then in 2007, we started automation and robotics. So a lot of history has gone through this. We were identified as the 16 hidden gems by the Forbes magazine, then given by Time magazine Innovation Awards, CIS Innovation Awards, and various other awards.

And in 2017, we set up the Advanced Manufacturing Technology Center for which you saw that and we brought in the titanium casting technology in 2015, brought the equipment related to that. And since then the journey started related to parity which I mentioned to you.

We have a great team. All this is being driven by a very passionate, driven team but at the helm of affairs, the senior management which most of them is here today with us, all of them are here with us excluding Jim, whom you already heard, who is the Head of our Technology Innovation. Mr. Priya Ranjan Agrawal, he is our Head of Marketing. Mr. Alok Agrawal is also here -- Mr. Priya Ranjan is the Director for Marketing and Mr. Alok Agrawal is the Director for Quality and Technical. Smita, she is our Director and CFO and Jim is the Head of Technology Innovation. Stephan Brandt is the Head of our Sales in Europe, so he lives close to Paris. Because currently, the majority of our foreign OEM sales are in Europe. That's where we started with and more of these are circling around France. So he's a French guy who lives there.

A lot of certificates, what I mentioned about a lot of certifications and approval have been achieved in the past. AF9100, we have customer approvals from Honeywell to BAE Systems to Safran to Israeli Aerospace and then recently, very recently we now started getting our NADCAP certifications which are very important for the aerospace industry as well. The customers that we've had very long relationships with starting with Flosso in 1985. These are all our customers even now.

So whoever, Flosso, Nellis, Siemens, Samson, Klinger, Kronsberg which was previously called Rolls -- which was acquired by Rolls Royce, it was called Rolls Royce Marine, which was acquired by Kronsberg, all these customers, VSSC, part of ISRO, again now moving into that aerospace defense market since 2014, various DRDO labs, BrahMos, HAL, BAE Systems, Safran, IAI, all Dassault Aviation. And all this again, to achieve all this speed and achieving this parity, it cannot be done without by putting, just by putting, bringing technology, putting the best equipment in, you have to put in a lot of systems, processes in and also create a great team.

And for that reason, we have instituted a very transformational HR project, HR transformation project and that's being run by PwC for the last few months where all the entire organization's design, processes, KPIs, performance management systems, balance scorecards, everything is being documented and put into systems. So when the company expands and scales up to the scales that we imagine it will over the next few years, we are able to manage that and not buckle under a lack of systems. So this was just different.

There is a very important aspect of the company which we try to imbibe and look for in all our employees, all our families, PTC family and that's what we encapsulated under this word called Aspire and with this acronym which is basically for us A for Agility, S for Sustainability, P for Passion, I for Integrity, R for Respect and E for Empathy and Endurance. I'm not going to get into these details but these are important values that we carry as a company, as a company as a whole but as individuals inside the company as well.

And so that's not just looking at this organizational structure from a management level or technical level but also at the entire worker and operator level and for that we are building a very important competency development program, where we have to move from various levels, where the initial competency of a new recruit as an operator will be related to remembering things, then understanding what he is doing and after that he understands and works for he or she for six months, then they are able to apply that understanding to the work and from applying it after working for another one year, two years and going through training and through the program to analyze and evaluate and then ultimately start leading and this is the competency framework that we are currently developing in the organization.

As I mentioned earlier there is a huge focus on sustainability and internally driven as well but also now extremely important for all foreign OEMs whether they are aerospace, also for aerospace industries but also for other foreign OEMs in the industrial domain. And so this plant that we saw earlier is covered by on the roof by 750 kilowatts of rooftop solar currently. We have a windmill in our Mehsana plant. Mr. Shukla is the Director of our Mehsana plant. The majority of the power that comes from there is from our windmill. But in the new facility that we are going to create in that 50 acres plant, we will ultimately create solar power where we will be getting almost 50% of our power coming from renewable sources.

Again, all this leads to a roadmap for the reduction in carbon footprint to tally up with the global requirements and match up to the tariff call. And it has gone so, in 2023 this year the target is primarily to measure Scope 1 and Scope 2. So there is global standard and the process has been created and there is Scope 1, Scope 2, and Scope 3. But Scope 1 is primarily internally related to energy sources. Scope 2 is also based on the materials that you are buying, and what carbon footprint it is creating, and Scope 3 also takes in the carbon emissions done by your supplier even.

So in the first year of implementing, it in 2023, we are going to go to measuring of Scope 1 and Scope 2. So what you can see here in 2024, we are going to have a defined plan for reducing carbon footprint, and by 2025, we are able to start measuring Scope 3 and implementing the plans related to reduction that we defined in Scope 2. And subsequently in 2026 onward, we plan to take a leadership role in the world in terms of carbon footprint reduction in such manufacturing capabilities.

We have recently also received a lot of accolades and various MOUs. So we got the Raksha Mantri Award from the defence minister in the previous DefExpo in December in 2022. We signed an MOU with Dassault Aviation to manufacture parts for their files. I signed an MOU with Safran in DefExpo 2022, December 2022 to make parts for the civil engines, LEAP engines

as well for the military craft engines. And in Aero India 2023 they handed us over the PO for the first time to make and develop parts related to the civil aviation for the LEAP engines.

As I mentioned earlier, for BAE Systems we signed an agreement there and a plethora of other agreements related to what we signed with HAL, and MOU to manufacture parts for the Sukhoi 30, and Su-30 engines. We signed an agreement with. BTA signed an agreement with MOU with MDL earlier, much earlier. And we will be exhibiting at the Paris Air Show, which I told you that's the reason why Jim had to travel there, so which I will bce also going next week. So it's the world's largest air show, where all the aerospace and defence companies are there. We will be exhibiting there next week.

Yes, I already talked about that. And this inauguration of our aerospace facility was done by the Raksha Mantri Honorable Shri Rajnath Singh Ji. This is the first operational defence manufacturing facility that has come up in the UP Defence Corridor and again he also laid down the foundation stone for the new plant in the 50-acre plant that is being set up. And he was very kind with his word about us and about the company.

So now I'm getting into the numbers after all this premise. So it's been a very good year for us, but what I would try to show to you more important than numbers is trends that are financial trends that are happening, which can start giving you some indications as to what's to come in the future. Over the, compared to the previous financial year, our revenues were up by 22%, the top line. However, the EBITDA levels were up by over 36%, going up from INR48 crores to INR66 crores. And EBITDA margin jumped from 26% to 29%.

And that also same thing happened with our PBT. Again, almost an 80% jump from INR18 crores, INR19 crores to INR33 crores, INR34 crores, and a PAT increase of double. So we doubled up at some around INR12 crores, INR13 crores to INR25 crores, INR26 crores. And again, the margins, similarly, that margin went up from 7% to over 11%.

The same thing which I talked to you about earlier, you can see an increase in revenue from the previous year of about 10%. EBITDA increased from the previous year of over 24%. EBITDA margin closer to 30%, 29%, and increase in fact by 24% compared to the previous year. And in net worth, increased by 21% to 22%. So here you can see certain trends. So the income is increasing, not that rapidly though. Yes, I'll give that. But there's an increasing trend there. There's a significant increase from FY ‘22 to FY ‘23.

The flat line over there is between ‘21 and ‘22. It's primarily because of, I would say, COVID. COVID is gone, but we should still remember COVID. And but more importantly, you can see how the EBITDA margin trend, EBITDA is increasing. But more importantly, you see the bottom chart. Here, for those who can't see from the back, in FY ‘19, our EBITDA was around 18%, which went up to 20% in FY ‘20, 24% in FY ‘21, 26% in FY ‘22, and 29% in FY ‘23.

So even though the revenue has not increased, so for an additional revenue from, let's say, INR155 crores to INR226 crores, so that's about an increase of INR71 crores in revenue, we've added an EBITDA from INR28 crores to INR66, so almost INR38 crores of EBITDA on an

additional sale of INR71 crores. So almost the addition in EBITDA by increased revenue is almost 50% in that five-year horizon.

Similarly, if you see here, this trend is related to the EBITDA margin increase, PAT margin increase, and ROE increase, all the trends are having the same slope or similar slope, all moving towards on the higher side, almost on the same slope. And the debt-equity ratio is slowly, constantly going down, of course, being affected by the increase of reserves that are getting created because of added profitability, but also a reduction of new equity that has happened in the company as well.

And certain accounting ratios, certain ratios, the long-term debt to EBITDA margins have reduced by close to half from 2020 in the last three to four years, from 3 to around 1.64. The total bank loan to EBITDA levels ratio has dropped from 5.3 to 3. The total debt-equity ratio has dropped again by 40% from 1 to 2.58. And the current ratio has increased from around 1.07 to 1.6. The interest service coverage ratio has increased by another 50%, close to 50%, is from 2.2 to 3.13. And all the liquidity ratios as well, you can see the rise, whereas the leverage and the gearing are coming down.

Also operationally, what you could see from this is what we call the margin and the realization. So that basically takes the entire revenue of the company and divides it by the tonnage or the weight of the parts shipped or sold. And from FY '18, the revenue of sales or realization per kg was around INR850 per kg, which itself if someone wants to put any peer around our company, which I will strongly disagree to, is very, very high compared to any peers.

Normally at INR850, you would see, if you're comparing anybody to a steel casting or fabrication or any of these types of companies in India, or even abroad, they are not at this. They are probably at best half, but normally half that value. One-third that value. But that also has increased from INR849 or INR850 gradually over a period of six years to now being closer to INR1,500, almost an 80% increase in realization from INR850 to INR1,480.

Similarly, if you look at EBITDA per kg, that has risen from around INR150 per kg to more than double that at INR380 per kg. So almost an increase of 150% in EBITDA per kg. Everybody knows that we had a very successful fundraiser a few months back, including a rights issue and equity influx that happened in the form of preferential issues as well as warrants, which provided the required capital for us to make that investment in capacity that we are currently doing.

So I think that's the end of a very long presentation from me. I can see most of you are awake, so some of you found it interesting. So thank you very much.

Diwakar Pingle: Thank you so much, Sachin. I think that was really intense, but as Sachin said, I think people have been kind of listening intently to the presentation. We will now have the Q&A session. Sachin, do you want to come. Yes. So I think again, simple ground rules. If you have a question to ask, you can hand up. Someone will come and give you a mic. Only do questions for participants. Ask both your questions and then Sachin will give an answer and then we'll move to the next participant. State your name and organization that you represent, this is for the

purpose of the transcription. We are kind of recording the conversation here. So we'll start with Q&A. We'll have the first question.

Sanjay Shah: Hello, thank you Sachin ji. Thanks for an exhaustive explanation and a very nice presentation. It's a technology-driven industry, so we need to understand the way you explained it was really helpful to us. We need to understand that ours is more of a different vertical where we have technology-driven supplies there. So do you see any stickiness in the business or majority goes to defence and government organization?

Then how about the future share of our company where we get all the orders? The other thing is that all the three different verticals we are into, aerospace and up to medical devices and all. So what is the ratio of business we are doing in different segments and how do we see our company three years from now with establishing the new units with the capacity and turnover from that unit? Thank you.

Sachin Agarwal: I think, your first question was whether what is the stickiness and how much are we dependent on the domestic -- government purchases and domestic purchases. So yes, that's an important question for us to also address initially strategically as well. So nobody wants a single customer. It's always risky for a business to be dependent on single customers or a single market for that matter. So even though the start of all our development work related to what we talked about in the phase of our capability development, capability investment, that part was primarily driven by the Indian defence and aerospace ecosystem requirements.

But over the last three, or four years, once we are able to move in that with the help of great work by Mr. P.R. Agarwal for helping us to penetrate this entire ecosystem throughout DRDOs, labs to BrahMos, unimaginable areas and such critical areas which I can't even mention. We also started about four years back to start developing our foreign OEM market which I mentioned to you about. And that's, so when I see this market, what will start happening now converting from next one year, two years onward is the aerospace defence portion will largely start as being domestic heavy, Indian government, Indian defense heavy.

But over the next three, or four years, coming at a balanced, equal level from foreign exports, OEMs. So that's why we've had all these approvals from Safran and aircraft engines. Just to mention, Safran aircraft engine does not give approval to casting companies regularly. They probably give approval once every three, or four years to one company. So it's a very, very difficult audit, an extremely difficult audit for which we went through exhaustively over the last many years.

And the team has done amazing work in being able to satisfy all the requirements of Safran and aircraft engines because this is all for civil aviation. So extremely stringent requirements. So yes, so we're developing that market parallel so that over a period of time, we are not just purely domestic defence, but we are also having a market in the foreign OEM business for which I mentioned about the civil aviation part of the business.

The other part of your question was how do we, so what ratios are these verticals currently and what do we imagine to be. So currently, as I mentioned, this phase, the last seven, eight years of

our phase has been related to capability development. Now once we have got most of our approvals and certifications and testings and qualifications done with both our domestic defence as well as for our foreign OEM business. Now we, so that's why it's around 15% to 20% of our existing business that comes from that.

But what we see in the next three to four years is, let me take that for a little bit longer, in the next five years, that almost 70% of our revenue, 70%, 75%, 70% to 80% of our revenue is going to come from the aerospace and defence business. And so that's going to be transformational as well, including both domestic and foreign companies.

I showed you some examples of the parts that were there on the thing. So there are, the products are across all platforms, as I was showing you earlier, right from aero engines to airplane parts for Rafael, for BrahMos, for different missiles, to leap engines to ISRO's Gaganyan parts to Kaveri engine parts, everything that you see, anything that in India is requiring titanium or superheated parts is probably from us, if not being imported.

Diwakar Pingle: We'll take the next question.

Deepak Narnolia: Thank you very much for your elaborate presentation and it was very helpful. This is Deepak from Aditya Bilra Capital. So, sir, I have a couple of questions. Number one is, I appreciate your dharma for technology first and to be the best in the class globally. But the investor of dharma is the ROE. And when I look at your ROE, actually, despite almost 35% growth in revenue in the last five years, CAGR, and 6% growth in EBITDA, and a 25% profit growth, your ROE is quite suppressed, because your business is very, very asset-heavy.

And working capital requirement is also very high. So, despite all these very robust numbers, the ROE is only about, sub-10 %. I wanted to know when you are setting up the capacity of this, titanium casting and all. So historically this was the case, going forward how it will be? Is it going to be similar?

Sachin Agarwal: I understood your question. Yes. So first of all, as investors, everybody knows, or as a number guy, if historical reasons were a way to predict the future, then everybody would have been sorted, we would have to work. The first part of the question, what has happened, what is in terms of suppressed ROEs? Now what I explained again, and if you are listening, the first seven, eight years of our journey was investing in capability.

So when you invest in capability, you invest in infrastructure, not in capacity, but infrastructure. So for example, India is now currently on an infrastructure spend, billions, if not trillions are being spent. The ROE for that will not happen right away. It will happen when the business is developed from out of that. But for example, if someone is buying a cement plant, or setting up a cement plant in a remote part of the country, in order to transport the material back and forth, you need a road and there is a road missing.

And to operate that plant, you have to build that road. Is that road an infrastructure spend, a capability spend or a capacity spend? More of a capability and infrastructure spend. What we have been building for the last seven, eight years is that road. When we built that road, we didn't take anybody's outside money.

So it's an important question to be asked. If in the last seven, or eight years we talk about ROE, where did the equity come from? The E part of the ROE. Out of the INR300 crores to INR350 crores that were invested in this capability development that happened in this plant, across the various verticals of businesses and technologies which I was talking about, which my mouth still hurts for, is all invested, besides the first INR40 crores that came in from a PE fund, the balance INR300 crores and under INR10 crores which were given as grants by the government for the spend on technology development, balance INR300 crores came from internal accruals. About INR100 crores debt and the balance INR200 crores came from internal accruals, which again is another discussion to have.

So that entire investment and risk was taken by the company, the existing directors, and the existing shareholders in that phase of the business, where all the capability development, wherever there was a risk associated, entire R&D and development cycle that I talked about to you from MRL 1 to MRL 10, across all those technologies from titanium casting to single crystal casting to super alloy casting to titanium material development to forged cast to replica cast to rapid cast was all done by the internal accruals of the company. I could have very well improved that ROE, not invested in all of these businesses.

They issued out all those dividends to the existing shareholders, which is primarily the promoters, and made a much better ROE and still achieved the revenue because I have mentioned to you right now that more than 80% of the revenue is still not coming from these businesses and would have a much better ROE, but no future, no platform for growth. What's happening now is capacity development. The capability has been developed over the last seven, or eight years. Spent on R&D, development, experiments, trials, failures, and losses has all been absorbed.

Now we are scaling up and that's why we bought a land of 50 acres. Why do we need a 50-acre land when we are already sitting on a 30-acre land in Lucknow and another 30 acres of land in Ahmedabad. So I hope that answers your question. So, the ROE in the capability development phase, if any company wants to do capability development, will always be low. It has to be low. By definition, it has to be low.

Because if it is a high ROE business, then you are not enhancing capability. You are only scaling up. You are only investing in capacity enhancement, not capability enhancement. So that's the difference. And now when we are scaling up and investing in capacity enhancements, then the ROE will change. So obviously change. When we are investing in titanium, material manufacturing, Ingot manufacturing for the capacities that we are mentioning, they are all very scalable businesses now.

Diwakar Pingle: Pritesh, just give it to Pritesh right now. You need to be slightly louder, Pritesh.

Pritesh Chheda: Hello. This is Pritesh from Lucky Investments. Thank you for this opportunity and it was a very great presentation from your side. Slightly lengthy though. Sir, just a few questions. You did mention in the presentation about the capacity that, you are adding at about 600 tons in the aerospace casting. It would be helpful, if you could tell us what is the total capacity on the ground as of the date with you, across the system. Second…

Sachin Agarwal: For titanium castings, we are adding a capacity of 300 tons.

Pritesh Chheda: Not only for titanium. Capacity on the ground totally, that you have. Is it 5,000 tons, 6,000 tons, or 7,000 tons?

Sachin Agarwal: So there are two parts of the capacity. So one capacity is for our industrial casting which is separate. For the aerospace castings, we are adding two capacities. One is 300 tons for titanium casting and 300 tons for superalloy casting. So, combined together 600 tons annual capacity. The current capacity that, we currently have is in the tune of around 30 tons to 40 tons per year.

Pritesh Chheda: And how much is industrial?

Sachin Agarwal: Industrial is a separate business. Industrial is not mentioned, what we are expanding. We are not really very much expanding in the industrial capacity enhancement because it is already a reasonable amount.

Pritesh Chheda: Sir, what is that capacity on the ground?

Sachin Agarwal: That is approximately close to 1,800 tons.

Pritesh Chheda: Did Lucknow, and Mehsana put together?

Sachin Agarwal: So around 2,200 tons to 2,400 tons per year. That is including our Lucknow plant and Mehsana plant.

Pritesh Chheda: So, around 30 tons to 40 tons is what you have today on the aerospace.

Sachin Agarwal: On the aerospace.

Pritesh Chheda: My second question is on the aerospace…

Sachin Agarwal: But not a fully utilized capacity that I will also tell you.

Pritesh Chheda: No. My question is on the aerospace. 30 tons to 40 tons is fully utilized?

Sachin Agarwal: Not utilized.

Pritesh Chheda: On the aerospace casting plus the titanium material backward integration, that whole asset and the acres that you mentioned, where you are putting up, what is the capex that you are going to do there, and how much is already spent for?

Sachin Agarwal: So the capex for the materials part of our business is, in the tune of around including the VIM and everything is in the tune of around INR170 crores to INR180 crores. And out of that, a capex of around INR80 crores, INR65 crores is already done.

Pritesh Chheda: And how much is in the castings?

Sachin Agarwal: The casting part is another INR150 crores. INR150 crores approximately.

Pritesh Chheda: And how much is spent there?

Sachin Agarwal: That spend is not started much. That will be only INR10 crores to INR15 crores.

Pritesh Chheda: So we have INR150 crores plus INR180 crores, which is INR330 crores, out of that INR70 crores, INR80 crores is spent.

Sachin Agarwal: Out of, we have got INR70 crores- INR80 crores.

Pritesh Chheda: And the last thing is, is it fair to assume that, today 80% and you mentioned in one of your answers to one of the investors that, about 80% of your business today is industrial casting?

Management: No. So when I…

Pritesh Chheda: And it is 20% aerospace, which will go to 50%?

Management: When we define industrial casting, that does not mean, that means air melt alloys that exclude titanium and super alloys. What also includes is defence. So they are not everything that requires titanium and super alloys, but it is for defence application. So that is part of, what we call our industrial portion, which is from our air melt alloys. So many missile parts, many such parts which are there, which are high-strength steel materials, stainless steel materials, and duplex stainless steel that goes on to water-jet engines. All these are part of our quote-and-unquote industrial business but still have defence applications.

Pritesh Chheda: Okay. So your comment on, the last thing, your comment on taking it to 50% of your business is basically the titanium and the superalloys?

Management: The titanium super alloys will probably go to 70% of our total business.

Pritesh Chheda: 70? Okay. And aerospace in that will be, and aerospace will be 50%?

Management: So what we call as aerospace portion, which is our aerospace castings and materials part. Aerospace castings and aerospace materials part will go up to in the next five years over 70% of the total revenue.

Pritesh Chheda: Perfect. Thank you very much and all the best.

Diwakar Pingle: I think both of you stand opposite ends otherwise we cannot see people here. Let us get someone in the front here, please. One second. Just go ahead. We will take turns.

Renjith Sivaram: Thanks for the presentation. I am Renjith from Mahindra Manulife mutual fund. So just this might be something like, a year before, you did a rights issue and you raised some INR7 crores. What was the end game of that? We did not understand.

Sachin Agarwal: What was the end game to raise money?

Renjith Sivaram: Why do you do a rights issue for INR7 crores at such a low discount?

Sachin Agarwal: We needed for that point of time, we were buying the land, the 50-acre land in UP defence corridor. So, we needed money for that, at that point in time. Which was, whatever money was available plus a certain amount of money to pay for that land. So it was primarily for making that, small raise, which could have happened very fast for us and that is why, we raised that money.

Renjith Sivaram: It was quite a discount to your…

Sachin Agarwal: No, the point was that we needed around INR7.5 crores and that was the easiest way to get done and go through the SEBI and all the BSE and all those requirements. So that was the easiest, fastest way for us to move. So that is why, it was structured that way.

Renjith Sivaram: And one more thing, I want to clarify. You told, me you are the only domestic titanium manufacturer, right? But I hear Midhani also has a good amount of capabilities and they are also expanding.

Sachin Agarwal: So let me qualify by saying yes, we are the only private titanium player. But having said that, the total capacity or production, not capacity, the production that Midhani does for titanium materials is approximately 400 tons to 500 tons. 300 tons. 300 tons annually. But you are looking here, in the total world before COVID, approximately between 2,50,000 to 3,00,000, 2.5 lakhs to 3 lakh tons of titanium was produced pre-COVID 2018, 2019. And 900 tons to 1,000 tons we are importing titanium, out of which Midhani only produces 300 tons, in terms of material.

On a global landscape, 3 lakh tons versus 300 tons. So, it is 0.01% or 0.1%, whatever it comes to. And we are setting our capacity at over 6,000 tons. So, no sizable player has that small volume. Secondly...

Renjith Sivaram: So, look, you currently do only 30 tons to 40 tons of titanium currently, right?

Sachin Agarwal: Okay, so I think you are getting that.

Renjith Sivaram: So how much is the total titanium that you currently produce or you currently sell?

Sachin Agarwal: Let me explain. So these are all the various verticals. What I mentioned about 30 tons-40 tons capacity is, in this area. This casting, aerospace castings group. We don't have any capacity currently for the materials group. This is where, we are producing rods, bars, billets, rot materials of titanium, and super-alloys. Those are rot materials like bars.

Renjith Sivaram: These are, yet to be operationalized. Is that correct?

Sachin Agarwal: This is the new business. This is a new vertical. Yet to be operationalized. For which, we have bought all this work. He was asking how much investment we have already done in the materials group. That INR70 crores-INR80 crores investment or spend that we have done, the INR150 crores-INR160 crores, which I mentioned to him that, we'll have to spend in this, is in this area, where we are adding the EBCHR, the VAR, the PAM, the VIM.

All those things are getting over there to produce backward integration, upstream integration. Because, again, that's the gap. We are also adding capacity here. But that's for the casting area.

Here you make components. Here you make materials. This is what I showed you in the technology pyramid part of it also.

Renjith Sivaram: Yes, if I stop it there, Midhani is currently manufacturing 300 tons of titanium, right? So we are not manufacturing... So my question is that, if it's such a crucial thing, the Government has enough--Midhani has enough cash with them. So they can also expand and--So I'm just trying to understand that, if it's such a crucial thing for the Government, it's just a matter of seconds for the Government to take that decision, right? Midhani already has that capability.

Sachin Agarwal: Yes. Right? But they have not taken that decision in the last 70 years, right?

Renjith Sivaram: Okay, yes, that's right.

Diwakar Pingle: Mukesh you need to hold on. Your chance will come next. Others are there.

Mukul Dharada: I am CA Mukul Dharada, individual investor. So, in one of your slides, it is mentioned at full capacity, a potential revenue multiple of 10x to 15x. So is this after all the phases of investment are done?

Sachin Agarwal: No. So this is only talking about... This press release that you're mentioning about, is only about one thing, which you must have... read that press release heading, what does it say? That...

Mukul Dharada: Slide number is 48, new aerospace materials mill?

Sachin Agarwal: Okay. Yes. So this is more specifically talking about the titanium mill plant that is being set up. And there was a press release for that also when we released this for the investor. That, these three technologies that we mentioned in our... for making titanium materials, the VAR, the EBCHR, and the TACHR, or the PAM, all three are equipment-wise, barring the technology transfer part, but even the equipment-wise, very expensive. So for example, the VAR that, if you buy now of that capacity will probably cost in the region of around $4 million to $5 million. We bought it for $3,50,000.

Similarly, the EBCHR of that capacity, if you buy currently, will be in the region of around--the equipment, will be in the region of around $80 million to $90 million. We bought it for $2.5 million. So, if you go and look at one of the investments that one of the peers that, we can call our, not a peer, but a comparative company that, we can call to us, the PCC, the Precision Castparts Corp in the US, on their website, you see, they are setting up a plant in the USA because of the same macro situation, which I mentioned earlier, the lack of titanium availability. Their plant investment to do the same thing, which they mentioned, EBCHR, VAR, is an investment of $500 million. It is on there, they have tweeted about it.

And that same investment here is happening for INR150 crores to INR180 crores. So that question that was earlier asked about ROI, ROE, certainly at full capacity, whenever it reaches full capacity, two years, three years, five years, whenever it reaches full capacity, when it reaches

full capacity, the revenue potential for that is, multiple times that of the investment, for that investment.

Mukul Dharada: So the 10x to 15x, what you are saying here, it is from the current sales or the investment here, the investment amount?

Sachin Agarwal: It is of the capex. Of the capex? And the capex related to that materials group.

Mukul Dharada: Got it. All the best. Thank you.

Nikhil: Thank you, Mr. Agarwal. So this is Nikhil from JM Financial. I just had one question actually, which is the business plan going up as a number, say, attrition ally after six years, I would say fiscal ’26 in terms, of revenues and profitability, the reason to ask is, somebody mentioned Midhani as one of the peers, the PTC market cap and the Midhani market cap is almost similar now, there is a very sharp difference in profitability, it's the 4x difference in profitability.

So clearly, as an investor, the question which comes is, there is a lot of effort and investment going into capability building. How does that translate into revenues and profits over a year window? So if you could give some concrete numbers, approximate, say for fiscal ‘26, that will help to put the overall picture in perspective as an investment case.

Sachin Agarwal: So, I think one of the ways to assess numbers are again, what I can do here is show you a picture as to, what are the opportunities and potentials that, we are seeking, why we are going after that, what are the sizes of that, why they are happening, which I try to cover in my presentation. The other way is to say that, forget all that, let's talk, let's play in vanilla, what the numbers are.

So rather say, the potential of the number depends on, so the important point to understand is, as a company, we have casted a very large net. What we are casting is an extremely large net for two reasons. One is to diminish our risks and second, increase exponentially, thirdly, to keep very high profitable margins or reasonably high margins.

One of the ideas, you can grasp from, what is the revenue potential, which I can't say what is going to happen in 2026, is what the question was asked previously, that on an investment of INR150 crores, we are creating for titanium, a capacity in the tune of over 6,000 tonnes. Titanium material spent sells for approximately $30 per kg, $25-$30 per kg. At full capacity, you can calculate the, I am saying around INR2,500-INR3,000 per kg, we will calculate the number, of what will happen at full capacity. But for me to say, when will it be 10% capacity, when will it be 20% capacity, when will it be 50% capacity, that is not what I am going to say right now.

We have an understanding of that, but that is something that, we want to keep to ourselves for now. But you can understand, what the market size is. I am just giving one example. So out of these multiple verticals, I just took one example of a titanium material mill, which is having 6,500 tons capacity, INR2500 per kg, you can do the mathematics behind that. But there are seven more verticals and the market size, is 6,500 tons capacity versus world production of

2,50,000 to 3,00,000 tons, which is hardly 2.5% of the world capacity. So it is not as if we are saying that, we are going to eat up 50% of the world market or 20% of the world market, we are talking about targeting only 2% or 3% of the world capacity.

If you look at just again, taking the same example for titanium, as I mentioned, titanium billets and things like that, currently would sell at around INR2,500 to INR3,000 per kg. If it is made from fresh material, from a titanium sponge, then the raw material cost is around INR800 per kg, INR800- INR900 per kg. So, it is around 30%, and 35% is the material cost. So you have a 60% to 70% gross margin there. And if you have made it from recycled material, then instead of INR800- INR900 per kg, the raw material cost drops to INR500- INR600 per kg. So then your margin goes up to, or your gross margin goes up to about 70%.

Nitin Gandhi: Nitin here from KIFS. Thanks for an elaborate presentation, very unusual but very appreciated.

Sachin Agarwal: Thank you.

Nitin Gandhi: Sir, as far as EBCHR is concerned, is anybody else is a user, right now?

Sachin Agarwal: Sorry, say that again, please?

Nitin Gandhi: EBCHR facility, which you are putting up technology, which you are using for recycling, anybody else is a user at this point of time?

Sachin Agarwal: Anybody else has that technology in India?

Nitin Gandhi: No, anywhere in the world?

Sachin Agarwal: If you look at the free world, which excludes China and Russia, because their technologies are very different, currently that scale of production only happens either in the US or in France, only two countries.

Nitin Gandhi: And for casting, can you share, what the capacity, which you are putting up and what are the current realizations?

Sachin Agarwal: So that you are talking about aerospace casting, right? I think, that was the question that was asked earlier, which is that the new capacity that is being put up is for 300 tons per year for titanium casting and 300 tons per year for superalloy casting, these are aerospace castings. And this currently, we are at around 30 tons- 40 tons current capacity. So, we are almost 10x or more than 10x putting up the capacity.

Nitin Gandhi: And 30 tons- 40 tons is not being utilized as a collated at all, right? And that part of the INR170 crores capex, which you are using?

Sachin Agarwal: The INR170 crores, one is related to the materials part, and the other INR150 crores is related to the casting part.

Nitin Gandhi: Sir, realizations can you share? Aerospace?

Sachin Agarwal: You are talking about aerospace castings? Yes. So, what you see here is that normally, if the industrial casting is at around for us, is at around INR1,000, INR1,200 per kg, aerospace castings could be anywhere in the region of between INR10,000 to INR3,00,000 per kg to INR1 crores per kg. It can be anything. If you go to a single crystal, it might become almost INR1 crores per kg. It is almost like gold. It depends on what your huge range.

Nitesh: Nitesh, I am an individual investor. Sir, very elementary question because what I understand is the entire ecosystem of defence and aerospace is very tightly controlled, especially on the material side. So even about 20,000, 25,000 odd vendors that Airbus has, they, the tier 1 or the tier 2 vendors, are required to purchase the material only from their approved vendors. The supplier won't have a choice, of whom they want to source the material from. And generally, in this industry, supply chain reject happens only when a new program is introduced, right? New program, that is new, like for example, Boeing recently launched the A315X or an Airbus comes up with a new model. Only in that case, do they try to do a supply chain?

Sachin Agarwal: The second part of the assumption is partially correct. It's not completely correct. So the, generally what happens with the programs, what you're talking about, that is not, so a leap engine type of manufacturing exists for 30 years, 40 years, right? So you can't have the same supply chain for 30 years, 40 years or just buying from the same company.

So every few years, they run into long-term contracts, maybe a five-year, six-year, seven-year contract. But once that five-year, six-year, seven-year contract is done, and then also, it's not a single supplier, never a single supplier, excluding a few things, which are extremely difficult technologies, which are even for leap engines, they are simple, but we'll come to that separately. They will, after five years, six years, and seven years, they will go for an auction again or for a bid again. So, like what, we got into the Safran leap engine, is not a part that was not being made earlier or it's not a new engine design.

The order, we have received is for developing castings or supplying castings in titanium for the existing leap engines for which someone else will be supplying previously. So that part of your assumption is incorrect.

Nitesh: You are right, sir. Only when there is a problem or probably, when a vendor is unable to meet certain requirements that’s when or probably another vendor comes up with a better offering in terms of either price or maybe a design, that's when a change happens. But the change...?

Sachin Agarwal: No, design can't change in aerospace. So you can't change the design. It's the same, it's a make-to-print.

Nitesh: So my question here is, what gives you confidence or probably what are the developments which make you feel that this condition can happen?

Sachin Agarwal: This is your question, the premise is, what I covered in the first part of my entire presentation, what is driving things now? Why is this supply chain disruption that is happening in China, where a lot of the Airbus and the Boeing's buy materials and components from, why currently Airbus, Boeing, Rolls-Royce, and GE, they buy materials currently from Russia, VSMPO, almost 50% of their sourcing is being done from there. All those particles currently coming out

saying that, the West must wean itself off of Russian titanium, where is the opportunity? There's not that much capacity of titanium outside of Russia and China. This entire increase in civil aviation requirement of over 42,000 planes over the next 20 years.

China making its own commercial aircraft, removing the need to manufacture those components in China, shifting those to somewhere else, where the production, where demand is, which primarily is going to be India and other places also. So that's all, what's driving this, both at the component level and at the materials level? So that's what, international market and then there is a whole domestic demand. Then there's a whole domestic defence requirement.

Nitesh: Thanks. I just want to ask the last thing, once you have the capacity in place, I'm sure, there will be a lot of other approval, and testing processes before you get into commercial production and start making supplies. So, how long should it take at that particular time, once the capacity is in place?

Sachin Agarwal: They go on parallelly in some cases and in certain cases, it goes on parallelly. So let's say for the casting part, we are already approved by SAFRAN. So they have to go for an additional approval for the new capacity. But the processes and systems remain the same. So, it's not a new qualification, it's an additional qualification. But if we are going for materials manufacturing, that will be a new approval. Certain types of material are in titanium, so when we say titanium, there are also three types of criticality in titanium.

One is structural parts, one is engine non-moving parts, the other third one is, engine moving parts, rotating parts. All three different categories. Structural parts, faster approval. You don't need that much longer qualification time. Engine parts are non-moving, non-rotating, and a bit longer. Engine parts, rotating, even longer. Depends on all of them. We don't need to get into engine rotating parts on day one. I can start with structural parts initially. So that's why, you always move up the ladder. It's not like a steel mill or a cement plant that you put up a capacity and start utilizing 80%- 90% from the first year. Of course not.

Rikesh Parikh: Thanks for the elaborate presentation. This is Rikesh Parikh from Rockstud Capital. Just wanted to know, EBCHR and VAR plant, has already been acquired, so what is the status of the installation part, and when it will be...?

Sachin Agarwal: The VAR foundations are being laid, the building is being made and the installation will start in the next two months, three months, the installation will start. So, we expect the installation for the VAR to be completed certainly in the first quarter of next year. The last quarter of this financial year. The first quarter of the calendar year.

Rikesh Parikh: EBCHR?

Sachin Agarwal: EBCHR is currently under transit. It's a very, large piece of equipment. It's coming in over 100 different containers. So it's a massive task logistically alone, to get it over here. It's under shipment. I think, the whole shipment will arrive by the end of next month and then the installation will start, which will take close to one year to 1.5 years to install that. Just for your information, all these installations and commissioning are being done by the OEM of the

equipment. So the German manufacturers, who manufactured the equipment, they are the ones, who are installing it.

Rikesh Parikh: Just related to it, after the installation, what is the lead time to go into the live production because I understand that...

Sachin Agarwal: That's what I was explaining here. So going into production doesn't mean that, you start day one with 100% capacity. So large capacity equipment. So depends on... Let's say we want to produce titanium also used in naval applications, submarines, ships, in artillery guns as well. Oil and gas also use titanium, Marine offshore. So all those industrial uses are also there. Industrial gas turbines also is required, super-dense. For that, the certification process is much, much shorter. Approvals are much, much shorter. So of course, that will take another... So you start with that.

Parallelly, you start applying for the aerospace ones, the structural ones and move up that level. But that certification process depends on, where the application is. For certain applications, you can start right away. For certain applications, you put the time in and get... So you start that much part of the production and slowly keep on getting more and more applications. The more applications you find, the bigger capacity you will utilize.

Rikesh Parikh: Just for example, like Safran, we did the audit as such. So will the new facility, we have to go and do the audit from scratch as such?

Sachin Agarwal: Sorry, I couldn't hear you. Not for the casting facility. The materials facility, yes.

Rikesh Parikh: So for that, we will have to go with a full audit process?

Sachin Agarwal: No, but the approval process for the materials is totally different from the casting part. But the advantage is that because there is a lot of company-related audit in that. Company policies and practices and systems-related audit for that. Which part is already covered. So they don't have to go through that. It will primarily be a materials audit. And so a process audit for manufacturing.

Rikesh Parikh: Thank you.

Diwakar Pingle: I think there are no further questions. We will kind of close for the event today. On behalf of PTC Industries and the entire management team, I would like to thank all of you for coming here today. I hope you found the presentation useful. It is up on the exchanges. And we will now request you to join for the hi-Tea, please. Thank you.