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EDITED TRANSCRIPT

GE - General Electric Co Investor Meeting

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Forward-Looking Statements:

This document contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance and financial condition, and often contain words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “seek,” “see,” “will,” “would,” or “target.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain, such as statements about expected income; earnings per share; revenues; organic growth; margins; cost structure; restructuring charges; cash flows; return on capital; capital expenditures, capital allocation or capital structure; dividends; and the split between Industrial and GE Capital earnings. For us, particular uncertainties that could cause our actual results to be materially different than those expressed in our forward-looking statements include: economic and financial conditions, including interest and exchange rate volatility, commodity and equity prices and the value of financial assets; the impact of conditions in the financial and credit markets on the availability and cost of General Electric Capital Corporation’s (GECC) funding, GECC’s exposure to counterparties and our ability to reduce GECC’s asset levels as planned; the impact of conditions in the housing market and unemployment rates on the level of commercial and consumer credit defaults; pending and future mortgage loan repurchase claims and other litigation claims in connection with WMC, which may affect our estimates of liability, including possible loss estimates; our ability to maintain our current credit rating and the impact on our funding costs and competitive position if we do not do so; the adequacy of our cash flows and earnings and other conditions which may affect our ability to pay our quarterly dividend at the planned level or to repurchase shares at planned levels; GECC’s ability to pay dividends to GE at the planned level, which may be affected by GECC’s cash flows and earnings, financial services regulation and oversight, and other factors; our ability to convert pre-order commitments/wins into orders; the price we realize on orders since commitments/wins are stated at list prices; customer actions or developments such as early aircraft retirements or reduced energy demand and other factors that may affect the level of demand and financial performance of the major industries and customers we serve; the effectiveness of our risk management framework; the impact of regulation and regulatory, investigative and legal proceedings and legal compliance risks, including the impact of financial services regulation and litigation; adverse market conditions, timing of and ability to obtain required bank regulatory approvals, or other factors relating to us or Synchrony Financial that could prevent us from completing the Synchrony split-off as planned; our capital allocation plans, as such plans may change including with respect to the timing and size of share repurchases, acquisitions, joint ventures, dispositions and other strategic actions; our success in completing, including obtaining regulatory approvals for, announced transactions, such as the proposed transactions and alliances with Alstom and Appliances, and our ability to realize anticipated earnings and savings; our success in integrating acquired businesses and operating joint ventures; the impact of potential information technology or data security breaches; and the other factors that are described in “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2014. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements.

This document includes certain forward-looking projected financial information that is based on current estimates and forecasts. Actual results could differ materially.

This document also contains non-GAAP financial information. Management uses this information in its internal analysis of results and believes that this information may be informative to investors in gauging the quality of our financial performance, identifying trends in our results and providing meaningful period-to-period comparisons. For a reconciliation of non-GAAP measures presented in this document, see the accompanying supplemental information posted to the investor relations section of our website at www.ge.com.

In this document, “GE” refers to the Industrial businesses of the Company including GECC on an equity basis. “GE (ex-GECC)” and/or “Industrial” refer to GE excluding Financial Services.

GE’s Investor Relations website at www.ge.com/investor and our corporate blog at www.gereports.com, as well as GE’s Facebook page and Twitter accounts, contain a significant amount of information about GE, including financial and other information for investors. GE encourages investors to visit these websites from time to time, as information is updated and new information is posted.



CORPORATE PARTICIPANTS

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PRESENTATION

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

Good morning everyone and for those of you in the room, welcome to GE Global Research. I am Mark Little. I am the leader of GE Global Research and the Chief Technology Officer for GE. For those of you on the webcast, welcome; thanks for giving us the time today.

We are here today to talk to you about how we win with technology. At GE we solve some of the toughest problems in the world. We can innovate at scale. We deliver great products to our customers to help them win in their marketplace. We know that winning products need to be at the right cost so we use our technology to focus on that as well. We drive all these technologies into our installed base to provide opportunities for our customers to improve their products in service and we have new muscle in analytics.

All of these things together are helping us win great market share today. We are going to tell you stories given by our great business leaders across their enterprises and we will show you how our portfolio is winning very substantially in the marketplace today.

I have been a GE officer for 21 years. I have been here at GE Global Research for about 10 years and I can tell you with great confidence, our product portfolio, our service portfolio has really never been stronger and I think you will see rich evidence of that today.

These same technologies help us improve our margins. We are very much focused on driving technologies that give us cost advantages. You will see examples of that in manufacturing technologies, you will see how we are using new design tools to drive speed and efficiency in every bit of our operation. We are using new testing techniques such as in Greenville to get our products to market fast and efficiently. We are even doing something that in my day in my early career was against every grain that we had across the Company and that is to vertically integrate.

We made a great living for many years sourcing products all around the world and while we still do that with pride, we are finding that we are inventing technologies that give us competitive advantages and we are working with partners to do those things ourselves. It is a different day for GE. You are going to hear today about our idea of a brilliant factory where we are driving significant productivity across the 400 factories in the GE system.

While services are not the focus of our activities today, I want to assure you that these same technologies that play so well for us in the new product side give our customers real advantage in the services side and the installed base as well.

We want to talk to you about the GE Store. You know it has several legs. There is a leadership leg, there is a global growth and operations leg, and there is a services leg. We are here to talk to you about the technology piece of this today.

Who shops at the GE Store? All of our business partners do. We share together in a rich suite of technologies, we share best practices and ideas and we transfer technology from one business to another very rapidly. At the center of all of this is GE Global Research, which has been the cornerstone of our technology play for many, many, many years.



Who are we? We are the first industrial research laboratory formed in the United States. In 1900 the early sites of General Electric, one nearby in Schenectady, our forefathers believed then as we believe now that technology and innovation are at the heart of making great industrial companies. So they brought a young professor out of MIT, he came part-time for a while because he wasn't sure that this industrial research was an interesting thing. He fell in love with it, he left MIT and came here full-time and he ran the place for 32 years. And ever since then we have been going strong. You well know that many great industrial research centers in the United States have come, many have gone. We are still here and we are standing stronger than ever.

We are at the core of the technology initiatives across the Company and we are the focal point for the 50,000 technologists across this great Company.

For the first 100 years of our Company, we were only here in upstate New York but as we turned into the new century, we started to spread out across the world. First in Bangalore, India, then to Shanghai, China, then to Munich, Germany. And we came back to the United States to the Detroit area to do advanced manufacturing and software. As we turned into the next decade, we continued to build out. We went to Rio de Janeiro and we built the software center in Silicon Valley to attract the great talent there and we continue to build out in Israel and now in Oklahoma for centers focused on the oil and gas industry.

We build out to get great access to important talent all around the world and to be close to our customers who are innovating in markets that are important to us. This is a very tightly knit global network of deep technologies to support all the Company's businesses.

What is our role in the GE store? You can well imagine that we do the foundational technologies. We have great depth in material science. We work on the things like fundamentals like high-performance computing and advanced aerodynamics that all of the GE businesses can share in. We have a role to spread ideas very rapidly so if we develop a new alloy or new composites technology for Power and Water, we will spread it to Aviation, then to Oil and Gas. If we develop a new inspection technology for human bodies in healthcare, we will then use it in our Oil and Gas business to inspect pipelines and on and on and on we go.

We use our technology strengths to think about acquisitions not only in the technologies that they can bring into GE but what we can bring to them. We are very active partners in thinking about what businesses we should acquire and then helping those acquisitions be successful.

We nurture innovations that are outside the core of our businesses. We will show you some examples of those things today like solid oxide fuel cells. We have done great things to build a new cell therapy business inside of Healthcare and on and on we go.

As you know, we have made a very substantial push to build out a digital capability at real scale. The center of that is our new software center in San Ramon, California where a few years ago we had Bill Ruh and his ad min and now we have 1000 people and we are building a network across the Company to use those great digital skills at big, big scale.

I have a role to work with the engineering community. We have an Engineering Leaders Council across the CTOs in all of the businesses and we shape the technology agenda for the Company, we share best practices. We build tools and techniques together and we even share people. You will often find people coming from the research center going to the businesses, people going from business to business and it creates a rich environment for technology sharing and growth for our people.

I just want to give you a few examples of the kinds of things that we do. I had mentioned solid oxide fuel cells. This is a technology we've been working on in the lab for a number of years and we got to the point where we got incredible breakthrough in making a very cost-effective fuel cell. We like it so much we are building out a business. You can see us cutting the ribbon for this business here last year. Those of you that are here will meet Johanna Wellington later on and she will tell you with great excitement about the business that she is building out.

The idea here is that we build a very low-cost fuel cell which extracts electricity from the fuel, could be natural gas or a reformed distillate, take the electricity out of that and then burn the residual fuel in a reciprocating engine or maybe even a gas turbine someday. The combination of those two things can be 65% to 70% efficient. That is even more efficient than the best central stations today. So this is an inversion of the paradigm where central stations have been more efficient than locally generated power forever. So we are very excited about building this out and we are scaling up as rapidly as we can go.

Here is a different kind of thing. We talk about here at GE Global Research working on extreme machines. These are machines that require very high performance in a very rugged environment. A good example of this is subsea and you can see we use the entire GE Store to make a strong play for us in subsea. Advanced materials coming from Aviation, inspection technologies coming from Healthcare and on and on and on it goes.

Now just to pause on the Oil and Gas space, it is obvious to the casual observer that with the drop in oil price has created some stress in the industry but I still believe very strongly this is a great space for GE to be in. We can bring technologies from all of our businesses to play in an industry that is starved for technology. I believe strongly that the world will be using oil and gas fuels for a long time to come. Fuels will be coming from more difficult places to extract those fuels. We will bring the technologies to our customers to enable them to do that. While the industry is in a rocky patch right now, we are committed, we are going to sustain our technology investment, and we are playing to win.



We have a very good track record of working through cycles. Tina Donikowski is going to talk to you today about how our customers are telling us don't bother to invest in low emissions technology for the rail industry, we don't need it now. We stayed the course, we invested and we've got the only product in a market that needs that product today.

If you remember at the 9/11 time the airline industry was under extreme pressure when that tragic event happened and the industry backed up in a strong way. We stayed the course, we have invested and we are winning today. Bill Fitzgerald will tell you about that.

And I have a very personal experience, some of you will remember this back in the early 1990s, papers like the Wall Street Journal were writing about the terrific product problems we have. I was the leader of engineering in the power business at the time. I went to the GE Store. I got people from the research center then, people from the aircraft engine business to help us. We fixed our product problems and then when the market started to turn up in the late 1990s, we were there with the best machines in the industry even though we had just come through a dark time. The market lit off, we got great share, we got price up, we got costs down and those of you who were around then will remember something that we called the US power bubble and we turned a business that was losing money into the most profitable business in the Company. And even today, the F machines that we installed over 1000 back then, are a source of great revenue and profitability for our power business.

So the point is we know how to live through cycles. This is a great space for us to be in and we are committed to living through this cycle as well.

Very different kind of thing is in Life Sciences. We bought a great business not too long ago that had very significant capability in biology. We have great engineering capability here at the research center and together with our partners in the business we are building out factories now that can produce biopharmaceuticals. We know how to grow cells, purify them, extract them and this just enables therapies like modern-day therapies in T cells where we can extract your own cells, amplify them, purify them and reinject them back into you to blunt deadly diseases like cancer. Really great business for us and very high technology.

Then there is the Industrial Internet. I mentioned building out our capability in San Ramon, California. This is a very exciting space for us.

We had an idea to do something in software. We have built up our strength, we are building a platform that we call Predix that enables us to build applications across our own Company with speed and efficiency. We are already showing tremendous benefit in our contractual services area and then broadly in our services space. We are building out what we call Predictivity solutions on top of that to enable our customers to use their assets more productively. And we are even in the process of taking this new platform out enabling customers beyond GE's conventional space to use this platform.

This is an incredibly powerful new space for us and because we come from an industrial viewpoint, we think we can help our customers in a way that no other Company can.

Then there is FastWorks. We went to Silicon Valley to learn some best practices. I was personally quite amazed at what we could learn and we have adopted something we call FastWorks. And here is the idea coming out of Silicon Valley, a consultant we had named Eric Ries who helped us think about this. The idea is to get to market fast, to try your ideas out, let customers give you feedback as quickly as they can, and this has really changed the way we think about developing new products, has really has been an exciting new initiative that plays very well inside the GE Global Research network and very powerfully across all of our businesses.

So just to summarize, we have been investing quite substantially and technology. You can see we are now 5% or so of industrial revenue. It wasn't all that long ago we were about 2% or 3% of industrial revenue we were spending on research and development.

In the dark days of the financial crisis, Jeff decided to accelerate our spending. We boosted it up and now we are sustaining it at that level and I think you will see today that our investments are paying off across a set of great new product launches that really are positioning us very, very well in the marketplace. We have really boosted our spending and the results are showing.

So we've got I think a very nice agenda for you today that will give you some insight into what we are doing with technology in the Company and how we are winning. We really are delivering winning products for our customers. We are really focused on making those sustainable by driving cost-effectiveness into those products and continuing to get them to be more and more competitive over time. All of this feeds into our service activities in a very substantial way and you will see example after example of how our businesses are leveraging the power of GE and what we call GE Store.

So let's get started. Christine Furstoss is going to kick us off by talking about the activities we have in what we call the Brilliant Factory.

Christine Furstoss - General Electric Company - Director, Manufacturing & Materials Technology



Thank you, Mark. Good morning everyone. I am Christine Furstoss. I have been with General Electric for about 26 years and my current role is Director of Manufacturing and Materials Technologies where I lead a great group of researchers across the globe investing in those technologies, developing them for the betterment of our products and services and working with the leadership across the Company on how to implement those technologies, match their needs, both near-term and long-term.

I'm going to talk to you about what GE has launched called the Brilliant Factory. What is the Brilliant Factory? Well, it is really about nexus of advanced manufacturing, physical assets, processes, tools, things that we do every day to make our products great, to fulfill our needs for our customers with the power of the Industrial Internet; the ability to collect data like never before, the ability to analyze data like never before, the ability to get insights and to make a difference and an impact.

What is this doing? It is making us work together in ways like never before. While we have always worked together, it allows us to get better insights, it allows us to collaborate both within GE, with our customers, with our supply chain to be able to understand how can we continuously optimize? How can we learn, adapt and grow?

This is making an impact not only on how we work but on what it means to the Company because it is leading to productivity, it is leading to our ability to make a real difference in our day-to-day operations within our Company and with our customers. In fact, we calculate that for 1% productivity savings across the enterprise in which we are working, that is \$500 million for GE, making a real difference.

Now a core part of the Brilliant Factory is what we call the digital thread. Now it sounds like a great term but what it really means is that in order to effectively collaborate, we have to be looking at the same data. We have to be able to cut it in many different ways. An engineer may want to look at the data one way, a customer a different way, a supplier and our factories a third way. To be able to share data in ways that we can all understand and make sure that we flow it both from engineering design to the factory to our suppliers to our service shop, but also so critically back, understand how producible was a given design. How did parts flow? How did suppliers perform? Were we able to meet all the fulfillment needs of our customer?

To be able to gather that data we need to be looking at it in the same way but within the tools we need to do the analytics at each individual step.

So GE is investing in this digital thread and it is so important to us to be able to make sure that we can have this collaboration and truly meet this productivity.

Let me show you an example of how we are looking at it and what the type of impact can be. We worked with our facility in Power and Water located in Greenville, South Carolina where they produce many different products including gas turbines and parts of our wind product. We went to the factory and we looked at what this nexus of advanced manufacturing and Industrial Internet, the Brilliant Factory, can do, connecting the team, being able to continuously optimize. And you can see the types of impacts as we start with our engineering teams doing the design, flowing their ideas onto the factory floor, the factory floor able to give feedback real time where we are really designing the product. And then outsource suppliers so they understand the impact. In fact, we estimate that over the next three years we can save \$100 million as we implement these types of changes, these types of new collaborations and tools.

This pilot for us is serving as a template to now go to every one of our businesses, all of their factories and understand where can we make the difference because our factories are very different just like our products are different. Some of them make parts themselves, some of them assemble, some of them do services or remanufacturing and each may need a different set of tools. But by taking the time, being thoughtful, understanding our enterprise, yet understanding we want to move fast to get that productivity, we have great ways now of doing the analytics, doing the return on investment to understand the impact.

Now I started the discussion by saying we are going to have that new nexus and it is really this idea of physical advanced manufacturing meets digital, the Industrial Internet. Let me give you some real examples. These are just a few examples of the types of things that we are doing.

We are investing in 3D printing, some of you may have heard of this but for those who haven't, it is a new way of doing manufacturing. Most manufacturing is what we call subtractive. You take a part, you machine off or you drill off or you grind off different parts of the material to get it to the final shape. I am sure of those of you that have been in factories many of you have seen those types of operations and it is the core of what we do.

But there is a new technology out there called 3D printing and in 3D printing what you are actually doing is building up layer by layer, not subtracting from a starting piece but building up layer by layer the shape, putting material exactly where you want it and building it up.

What does this do? It opens up a whole new paradigm for our engineering team. They can now make different types of components, different types of parts that they couldn't make before because in order to traditionally manufacture, you need to be able to see a surface, you need to be able to see the surface you are going to machine or grind or drill. In 3D printing, you don't need that.

So it has opened up a new paradigm and what we found is that applying it to specific parts, new types of design, we can get performance improvement of up to 80%.



Now why is this physical meets digital? Because a key part of this is that you take the idea, you can turn it into a computer file very quickly, very easily and it downloads right into the machine that does the 3D printing. It opens up a new paradigm and we are starting to use it to do more iterations with the design because we can try things faster and it gives us better fidelity, better reliability, faster cycle time in our NPIs.

We cannot only use it to make parts, we can use it to make tooling or the molds that make the parts and we have taken what typically means six months down to three weeks. That is physical meets digital.

We drill holes in parts for many of our Turbomachinery products. Now why do we drill holes in parts? Because we want to push the most power out of our machine for our customers and that means that sometimes we actually run our metals up to their melting point. We don't want to do that because we need the reliability, we need to be very able to service these parts at the end and so we put very fine holes.

Now these aren't big, large holes. They are holes the diameter of just a few hairs and they are very specifically placed. They have very small sizes, very sharp shapes and we need to be able to do that in a way to enable products like our LEAP or our HA turbine to meet the kind of efficiencies and performances that we are guaranteeing to our customers.

Now we have done these processes, we use lasers to drill holes, we use very special electronic type of products to do that. But it is very difficult and so it is a slow process and sometimes we couldn't put the hole in the right place or get the right shape so we'd have to go back and rework it. It was very, very tedious. What did we do? We put sensors right on the end of our drill bit, right on the end of the laser or the electronic device and we are constantly getting feedback as we are drilling the hole. Where are you, what shape are you? That is digital meets physical.

What was the impact? We were able to improve our yield or how many parts go through perfect the first time by 50%. That is productivity, that is speed, that is impact. We were actually able to speed up the process because now we had confidence. We started this in our Aviation business and now we are spreading it across all of GE.

Finally, let me talk about when parts come back from the field. We have a great services or remanufacturing operation where we take parts and we make them better for our customers to be able to put back in their product. When parts come back from being in service and sometimes up to 40 years for something like a steam turbine, they don't look exactly like they did when we first shipped them.

Now to be able to understand what is its shape now, where do I need to put more material, where do I need to take away material, where do I need to do things like welding? It was very, very again tedious to understand to measure. We have now digital tools to go in and in a matter of less than an hour we can scan the whole part using technology from our Healthcare business, now adopted into industrial, be able to understand where do we need to repair, just repair there. How does it work? We are getting productivity of up to 4 times from these new technologies. We are able to have the efficiency of our workers go from about 12% of when they are doing real work and not preparing to over 70%.

Not only is this making an impact on today's repairs but it is now enabling new repairs. That is the power of physical meets digital.

In addition to these types of operations, we go into our factory floors. We go out to our supply chain. We are now able to collect more data, how are parts flowing through the factory? How are they being received by our customers, how are they able to meet the supply chain needs in various locations around the globe? We apply our advanced analytics that we now have the capability of from our software team and we are getting tremendous impact in productivity because we are reducing variation. We can understand when a machine needs service. We can understand if a machine goes down how to reroute. We can understand as suppliers are sending in parts if there is variability how we have to react. It is real-time optimization to make that impact.

Let's look at a part and how we bring this all together. This is something called a composite fan blade. You will hear more about it from Bill Fitzgerald in a few moments. It is a key enabler for Aviation business to get the types of performance. What are composites? They are a very complex material system that are made up of both a reinforcing material as well as a base material. It is very complex, it is very difficult to design with but it is something that we know gives us lighter weight, stronger material, more power, more efficiency.

So GE manufactures it. We insource it because it is so critical and requires such deep knowledge of the material system, the design, the manufacturing and now we apply concepts of our Brilliant Factory. We use something called informatics. We are collecting data at every individual machine. Is this part being made the way we need it to? Was this batch of material we got from the supplier exactly the same as the one before? And when it is not, we understand how to adapt.

We are applying learnings from our factory to our engineering team to get better designs the next time. We are automating more of the processes. We are able to open up new ecosystems with software and materials because we have that confidence.



What was the impact? Typically when we introduced a new part, the first time yield, the first time we send the first batch of parts through how many came out the way we wanted was 20%. Now that is typical for a very complex system, a very complex design. By putting these tools in, we now are launching new parts with 95% yields. That's the impact of the Brilliant Factory.

Why am I so bullish about this? Well, because we have the capabilities within GE to do this. This requires advanced control of advanced sensors, the operational knowledge of how the factory has to work, how the materials are. We are now using our new software called Predix to be able to combine these various tools and be able to customize them factory by factory. This allows us to grow quickly because we can pull on the learnings from across GE. We can pull on all the technologies and make sure that we are making the impact as quickly as we can but with just the right tools and right place. In fact, I am very bullish as we continue to grow these tools, we have just started our journey. We can save up to 20% on manufacturing time and cost. That is real impact.

Now what is our motto for the Brilliant Factory? Well, we are getting data from so many places, from individual machines, from controllers, from different types of systems, they have grown over time, they have been able to go on to the factory floor, what kind of manufacturing execution system do you have, what type of quality system? And instead of trying to make everyone standard, we use Predix to be able to take that data, be able to store it and tag it in waves and then put these apps on top and apps can be how do you put a sensor to make sure you get good feedback? How do you put a model to understand how you can go to the factory floor? It is a GE app store that allows us to customize for each factory, to right size what we need for those operations for that type of impact.

We also want to be able to use great tools that suppliers use. Some of them have great models, great controllers, great sensors or systems and what we have done is we have developed along with MIT, something called the Digital Manufacturing Commons, that allows us to protect our intellectual property, our suppliers but get them right into the app store using Predix as an enabler. It is an intriguing new business model that allows us to make an impact and make a difference for GE. As we said, 1% productivity, \$500 million. This is what the Brilliant Factory is about.

Thank you for your time and I would now like to introduce Vic Abate.

Vic Abate - General Electric Company - VP, PowerGen Products

Great. Christine, thank you. Good morning, everybody, and just by way of introduction as Christine said, my name is Vic Abate. I head the Power Generation Products business which is our gas turbine business and power. Just been in that role since 2013. Prior to that, I ran the wind business for eight years so that was a lot of fun there. And then just prior to that, I was the Engineering Vice President for PowerGen Technology. The reason I walk you through that is in the spirit of the GE Store and using technology to differentiate in the marketplace and provide value for our customers, I think a big part of that is understanding the technology and getting more engineers into business leader roles and product management roles has really been a key strategy for us over the last decade.

So from a PowerGen products perspective the way we think about our business is myself we have the new power plant business and then we have the service business run by Paul McElhinney. When you put those two together, it is nearly \$15 billion in 2014 and we see continued momentum which I will walk you through.

A lot of exciting things currently going on in our business. On products I will highlight today the H System but that by no means is the only thing we are doing. We are doing a lot not only in the large heavy-duty gas turbine space but on the smaller side as well, helping out more on the distributed generation as well as with steam turbines and generators.

The key technology imperatives, what do we focus the research center and our engineers on? It is all about the customer. And the beauty of our business is you don't sell power plants on style, you sell them on economics and I will show you that we can clearly change the economics with technology and that provides a differentiated position for the power plants that GE sells versus our competitors.

The other aspect is from a new unit perspective. If we grow our installed base, that drives the service revenue and the entitlement for that business long term. And the flip side is we have the largest installed base so as we move those new products forward putting that technology into our installed base helps our services business and expands margins not only on the new unit side but across the entire portfolio.

So just to start off with the market. The way we think about the market is twofold. You need to look at energy and then you need to look at capacity and this is really the intersection of our new units and services. In both cases we see a nice tailwind over the next decade for our gas position as a piece of the mix.

Just for starters on energy, 23,000 TW hours of energy was generated in 2013. Over the next 10 years, we see that growing to 31,000 and that is net of efficiency and demand side management. So one of the things with our renewables business and storage and those aspects we've got the full space covered. But from a power generation perspective, that 31,000 would be 35,000 so there is 4 TW hours that are taken away with that. Still net of that it's a 3% CAGR as a backdrop for the energy and that is really the service model. That is how well the assets are utilized and that drives our service business forward with that kind of tailwind as a CAGR.



In the center is the new capacity. So what new capacity needs to be added to support that growth of electricity demand. That is 2800 GW over the next 10 years. Now I have used this chart in other forms and that includes 500 GW of retirements but also for our distributed power business, there's 600 GW of non-grid connected capacity in addition to that. So this is just grid connected at 2800. When you look at the mix for the first time and I have been 25 years in power, for the first time looking at these charts you see gas now is the number one new capacity addition passing coal, something that historically coal has always been number one. Between gas and coal, it is 58% of the total and then you can see wind, solar, nuclear and hydro.

Also on the electricity generation, gas goes from 5.1 TW hours to 1000 TW hours to 7.6 TW hours. So again, tremendous amount of momentum on the gas space. It is something we are very well positioned on and continue to invest in going forward.

Relative to the gas turbine fleet, our fleet is 4500 units, the largest in the industry with over 190 million operating hours of experience. Extremely important to our customers, extremely important to the industry and to our engineers to take that data into continue to move the technology forward. The key metrics our customers care about reliability, availability, things that allow them to be more economical than their peers, the GE fleet runs better than the fleet in total by 0.5 point as well as in some cases a point and a half so something we are very proud of and continue to march forward.

On the right, the strongest catalog and I want to take a moment on this. Each of you when you came today got a copy of our 2015 product catalog for PowerGen. Why is this important when you think about taking technology, high-tech capabilities like material science and then you take a customer need, what is the intersection of that? And for us that really shows up in our product catalog. So for our product management team, which is a very strategic organization, how do you measure their results? How do you reward and incentivize them to come out with better stuff?

Our 2015 catalog if you take the specs in that catalog, we have moved output, we have improved efficiency across the portfolio of our products and compared to the 2014 catalog, for the transactions that we bid, it is over \$600 million of value that was created from 2014 to 2015 from our project management pulling all of the technologies forward into the marketplace. This is something in 2016, 2017, 2018 we continue to do and have a roadmap for so this is a way to hold the whole entire business team accountable for delivering results on behalf of the customer.

So how does technology connect into our power business and really this is a very simple chart that illustrates why we are so excited about this particular space. If you look at the left-hand side, it shows combined cycle efficiency which units that have a higher efficiency are going to have a lower cost of electricity and as a result, they are going to get dispatched more and they are going to run more and therefore if you own that asset, you are going to make more money. That is a key attribute for our customers.

And if you look in 1972, we introduced the E-Class of gas turbine. First one still running today 40 years later. There's 3000 of those machines running and they fired in the 2000 degree range so 2300. As Mark talked about, the F gas turbine which was launched in 1986, that fired about 300 degrees hotter and we have over 1000 of those running today, actually about 1500.

Then in 2003, we introduced the steam pooled H turbine. That fired north of 2600. So you can see as you push firing temperature you are pushing efficiency. So that is the objective to help drive value. The challenge with that is when you are firing at 2600, 2700, 2800, you are 300 to 400 degrees hotter than the melting point of the base metal and that is the technology challenge that we have for our teams here as that gets into materials, cooling, combustion, some of the aspects you will see on your tours. But for us, this has enabled us to march forward at a faster pace on this key value creation item which is efficiency in the gas turbine space.

So when you look at the H spot, you can see to these right, this is the segment growth by type of class of product. You can see the H Class product is growing fastest in that space with about a 38% CAGR from 2011 to last year. With about one-third of the market being the H, we see that over time becoming about half. And then the F now is 50% of the market with the Bs and Es continuing to get compressed.

The installed base is something we continue to upgrade. So the beauty of that H technology, it flows down into the Fs so those 1500 machines. Paul and his team take that H technology and they provide what they call advanced gas paths. We take the F class put it into the installed base for the Es and that is how you continue to move the customer base forward.

So when we think about our H product, it isn't about a unit and it is not about a power plant. We see this as a transformation for the gas power sector over the next 15 to 20 years. And why is that? It is on size and efficiency and so that has driven the economics of a combined cycle power plant significantly forward with this latest technology. And a simple way to think about it is one H gas turbine produces the same output in megawatts as two Fs. On an efficiency basis, it has moved about 5 points in the capability on efficiency. So between now and 2030, our view is we are going to plant 500 Hs in the ground.

When you look back, if it produces twice the power of the Fs, we have 1500 Fs, they produce twice the power of the Es, we have 3000 Es. So that is the march we are on and it is a \$2 billion investment and this is something our customers I will show you are reacting to very positively.



What does that fleet of 500 Hs do for the market? It saves our customers \$30 billion in CapEx. So to build out the next generation of gas, I can do it \$30 billion cheaper with this technology. That fleet that I own consumes \$8 billion a year less in fuel to generate the same electricity. The flip side because it is dispatched further down the curve, it runs twice as much as other products out there. So from our customers' perspective, it is more revenue but for us it runs hotter, it consumes parts and it runs twice as much so it is terrific for our service business and a great opportunity.

As Mark talked about from a FastWorks perspective, this is really a showcase product launch for us in the power business. Relative to the F, we have introduced it in half the time and scaling up, we are ramping this product up from we built one last year, we will build seven this year and we will have the capacity to deliver 30 in 2016.

So doing that -- how have we been able to do that? A lot of it is tied to the technology capability that you are going to see here today, the confidence in that and our testing ability which I have a slide on which is unprecedented in the industry and it has allowed us to do both 50 and 60 Hz simultaneously so any power plant on earth this product can fit.

So what are the customers saying? Two years ago we didn't have it in our catalog, we didn't have an air cooled version of our H in our catalog. Here we are today, we have 45 gas turbine technology selected and 15 that are in our orders backlog.

So just to take a second to build the \$1 billion power plant, there is a development cycle. So what our customers will do is they will work with our application engineering team and get to a point where they down select and say we are going to go with you GE, and then they go to get permits, they will get their projects sited and get the financing and that will be when we will book it as an order.

So 45 units are selected where we have been down selected as the technology of choice. 15 have reached their permanent financial close and are moving forward in the build cycle and so that 45 naturally becomes your next level of order book.

We have 84 in current bid activity so a lot of excitement and you can see across the globe not only in North America but in eight or nine countries around the world, we've got commitments.

How did we do this so fast in the spirit of FastWorks? A big part of it was the investment that we made in the world's only full speed, full load test facility. And I look around the room, several of you I know have been down here. We have had over 200 customers in the last year visit this test facility as we have been testing our 9HA.01 in Greenville. What does it mean when you take a turbine and you plug it into the grid whether it is 60 Hz or 50 Hz, it has to be within a few tenths of a percent of that frequency, otherwise it gets kicked off the grid. So you don't have the ability to run it through perturbations and issues that you will see in the fleet when it is bolted to -- when it is connected to the grid. Whereas here with our full speed full load facility we can run a 60 Hz [servant] at 50 Hz. We can run in that 65 Hz. We can stall the compressor. So 200 hours of testing one unit gives us the distribution for the engineers that feels like 500 units running for a year.

So historically this industry would build a power plant, go a few years, build another one, go a few years and you have a decade introduction cycle. What would that do? That would allow your competitors to catch up and to make pivots. With this launch and the speed of this launch, it is a case of you get out in front, you stay in front and you just build out the next generation of power plants.

The other aspect which is interesting is in the bottom right, it is actual data but the graphic is you can see there is a red dot that shows what our engineers said for this particular parameter they felt the output and efficiency would be. And you can see the actual blue dot is where the testing results have come. So what this is doing is showing more output, more efficiency and as a result dealing with our customers relative to servicing those units, future upgrades, we can already see a path as to how we play that in the market and this is giving our engineers the confidence and what we call internally the swagger really to play a very aggressive move on the first generation of upgrades.

So that is where we are today. The whole concept of product management is the next step, the multi-generational product plans. So you can see we are north of 61% with air cooled technology, something that a decade ago was really more of a dream than it was a reality and here today we are talking about it. We clearly have plans to get to 65 and north of 65 and leveraging the GE Store is critical to that.

You will hear from Bill Fitzgerald, a lot of great work on ceramic matrix composites for the latest aircraft engine. Putting that into our gas turbines gives us a nice bump. The advanced combustion and some of the advanced manufacturing tools are going to allow us to implement geometries that can really change the game on the ability to reduce NOx and then therefore push forward technology.

And then just the tool suite. The tool suite, the ability to design -- and just to give you a perspective, if you go back just five years ago to do some of the unsteady physics calculations, an engineer would launch a model and come back 10 days later and it would be done. So that is how long it would take just to calculate some of



these complicated equations that you need to understand the unsteady aspects of some of these models. And it is all about trying to get a molecule of air and a molecule of fuel and follow it through the engine with a level of precision that allows you to design to the next level of performance.

And that capability, it comes from the GE Store and continues to move us forward.

Just to wrap up here. When you talk about new products, historically you would introduce a new product, the cost would be higher and then you try to drive it down over time. With this mentality of doing slower introductions, you could argue that could be okay. Today as you ramp up faster, it is a whole different headset in our business about cost and it is really an all out effort to drive costs down on two fronts. One, when we introduce a new product we want the cost below where we have traditionally had it and then how do you drive it down faster than we have done in the past?

That takes three aspects. It takes design, it takes sourcing and it takes manufacturing. We have implemented what we call life cycle centers of excellence which are teams committed to doing this on new products by using the whole FastWorks team, a tremendous amount of pivots earlier. And things in design, understanding the entitlement, every piece of the power plant, dollars per pound, dollars per flow, dollars per megawatt, every subsystem has to buy its way on.

And then from a sourcing perspective, we have just next week, we will have nearly 100 suppliers in Schenectady, just two miles from here. We are going to walk them through the H volume, the H build out and tell them this is a build out cycle. You are either with us or not and here is what we need for our cost target and position that ahead of the lot of the costs coming into the business.

Then on the manufacturing Christine talked about Brilliant Factory. But some numbers. Our HA launch 10% below our 7F.05. We introduced the latest 7F.05 in 2010 so this H product is 10% below the first one on \$1 per megawatt where we were with that NPI just a few years ago. In the 7 FO5 just over the last two years, we have driven down 22% and just in the next 12 months we have got a clear path with POs to be able to the HA down 20%. So we are confident not only with our market position but our ability to drive productivity and cost and expand margins in the near term.

So just to wrap here, gas well-positioned to grow for the first time. It is the fastest-growing capacity and fuel energy generation source. We have the most comprehensive portfolio out there, the strongest catalog and I think we've got an operational rigor to take a lot of the things you will see today and put it into the business and on behalf of our customers.

We are investing \$2 billion. Like I said, this is not a case of just one launch and try it. This is -- we are in, we are going to lead this space and that \$2 billion is \$800 million on engineering to design it, \$600 million on our test facility which some of you have seen to validate and prove this technology out, and \$600 million with our supply chain to ramp it up to be able to build this at scale.

With that, I will turn it over to Bill Fitzgerald, who leads our Aviation business.

Bill Fitzgerald - General Electric Company - VP, Commercial Engines

Thanks, Vic. Good morning. As Vic said, I am Bill Fitzgerald, I run the commercial engine business. I have been in the role now since 2011 and I've got 32 years of experience within GE, largely in operating roles in the last five years and on the commercial side between the GENx engine and now this role.

The commercial engine business is an absolutely terrific business within the Aviation portfolio. We have had a very healthy run of revenue growth over the last three years, about 22% increase. And as similar to Vic's business, I sort of share the role of leading commercial business on the original equipment side with my partner, Kevin McAllister, who runs the services business and combined, it is about a \$17 billion enterprise.

On the original equipment side, we've got very strong backlog here, actually record at \$27 billion so we've got 13,000 engines that are already under contract to be built and we are in really a decade of product renewal and doing so profitably that started with the GENx in the 2011 timeframe. Passport and LEAP will both go into service sometime over the next 18 months and then our final upgrade is the GE9X, which will replace the 115B towards the end of the decade.

Our technology imperatives are relatively straightforward although large tasks. It is deliver the next generation of products and do it in the right profitable way. Secondly, it is industrialize those new technologies, make sure that those investments -- we're not repurposing factories, we are actually investing. We have had five announcements in the last three years associated with technology specific factories that are designed to help our supply chain be able to deliver that volume for growth.

And then use some of the digital investments that Christine talked about for two things. One, to find targeted opportunities for supply chain productivity and then secondly, to enhance the already very solid performance of our products.



I have to say it is a good time to be in the aviation space right now. The environment is strong, passenger demand is growing and continues to grow, utilization factors of those planes are stable. The cargo business is growing again and jet fuel is on its way down which is a very good thing for our customers. All of that is leading to probably the highest sustained profitability of the airline since the pre-deregulation days of the '70s.

And as a result of that as you can see from the production volume, airlines are investing and when they are investing they do like our product and so we are really pleased with the fact that we've got so many orders there. That feeds our services annuity stream in a very nice way. So between now and 2020, we will be up to 46,000, 47,000 engines out in the fleet that really helps us from an ability to go invest in a technology perspective.

This business has had a rich history of picking the right products with the right airframers and this generation of product development is really no different whatsoever. The thing I would highlight on this page first is we are the only engine OEM that plays in all three of the commercial markets from widebody to narrowbody to the regional. The second thing that I would highlight is six of the nine active offered aircraft we have sole source positions on. The other three we are north of 50% from a market share. So we've got some really strong interest in our product.

If you take the narrowbody for example, we are sitting at a 54% market share from an Airbus product perspective and of course sole-source on the 737MAX at Boeing and the Comac 919. That gives us a 79% market share from a lead perspective. So the interest in our product has been enormously strong and we are delighted with the response to it.

Now you are familiar with the GE model of continuous innovation and the aviation space is really no different. When we are sitting to decide what are we going to do for the next product improvements, it is all about going to the customer because they ultimately determine our success and going to listen. And no big surprise here what are the customers telling us, they need fuel efficiency and reliability, they need margin to the regulatory standards of emissions and noise and they would like some help associated with owning and operating the asset.

We take all of that information and we come to the GE Store, we come to Mark's toolbox of technologies and we say what is here that we could go use to go deliver those assets, number one. Number two, what is the operating cadence that we connect with Mark's team and the other technologists to make sure that we can bring those technologies to life and deliver those commitments to customers? And as a result, that is what differentiates our products from our competitors.

What I want to do now is kind of take you through a couple of examples, both at the product level and at the technology level associated with how this really works.

Let's start with the GENx, entered into service in 2011 with leading edge breakthrough technologies that made this asset 15% more fuel efficient than its predecessor. And even more important than that, about 3% more fuel efficient than its competitor. It is now flying at 19 different airlines. We've got 3 million hours worth of experience that is telling us that the technology and the architectures that we chose are delivering real values for our customers.

We take that foundation of technology and then we will go listen to what the narrowbody and the regional space told us which is look, we like that but we run higher cycle assets and we need to make sure that as we get that fuel efficiency, we are not paying for it in the form of maintenance cost.

So we get the team together, we scale it, design for what the customers have told us and the result of that is the LEAP and the Passport and the early indication on the Passport, which the two architectures are similar, is we are of about 0.5% better from a fuel efficiency perspective than what we had designed for and it gives us strong confidence that the LEAP architecture is the right architecture as well.

Then again, we hear from the industries they'd like to see us upgrade the 115B, one of the industry standards. And we like the foundation but we would like to see higher thrust and we think advanced materials are really required to make sure that we can hit about a 10% improvement in the fuel efficiency.

So that again come back to the GE Store, work with the team and when that product enters into service, it will be the highest efficiency jet engine in any class. But more importantly with a tremendous amount of confidence tied to the 60 million hours worth of experience out there that this asset is going to delight the industry for the next 30 years.

The other thing that comes along with this is some nice business efficiencies because we do get engineering productivity, we do have the ability to reuse the manufacturing technologies and that has created the capacity in this decade to have the largest number of commercial launches in our history.

Let's take that down just a little bit further and some terrific examples of the GE Store both giving and taking here, starting with the composite fan blade. We introduced the composite fan blade in the 1995 timeframe but it wasn't really the first use of it. The first use of it actually was in the 1980s, mid-1980s with our unducted fan application. So when I talk about generational investments in technologies, a foundation that began in the 1980s that continues to reap benefit, that is what I am talking about.



So the benefit of bringing the composite fan blade in here was we reduced 1100 pounds of weight in the asset. We've got much better durability. In fact today it is the leading durability fan blade in the industry. We are the only one that has it and it is unchallenged in that regard and we've got fuel efficiencies as well.

Now as aero mechanics technologies advance and as carbon fiber technologies advance, we took advantage of that. We were able to improve the efficiency, reduce the number of parts and when the GE9X engine enters service in 2020 with 16 blades, not the original 22, we will be able to pull 3.5 million cubic feet per minute of air or the equivalent capability of being able to evacuate the world's largest domed stadium of all air in about 30 seconds.

The other thing that we got along the way was we learned we could use this composite material in other places like the fan case. Took out another 700 pounds on the GENx alone, ended up with virtually a maintenance free fan module for our customers and then we took all that insight, put it back in the GE Store and the wind team came along and said if we could use that we could take our weight down, we could increase the length of our blades by about 20 feet and we could increase the power capability of these wind turbines by almost 20%. So it is a terrific example of how can we work together for the benefit of the Company and the customers.

The second example I thought I would talk about was ceramic-matrix composites, lots of dialogue on this. Some people think it started with Aviation. It actually didn't start with Aviation. Vic and the Energy team and the F-turbines around the mid-part of the last decade put it into frame 7 and it has given us an awful lot of insight in terms of what we are capable of doing from an engine perspective.

Just to clear what does it enable for us, it enables twice the thermal capability at one-third of the weight of the traditional metal pieces of hardware here. So it is a game changer in terms of what it can accomplish from an efficiency perspective in the engine.

We've got a totally vertically integrated supply chain here all the way back to the fiber source and not just for Aviation but Aviation and the Energy team as well.

The second thing is we have dedicated a lean lab in Newark, Delaware. It has been there for about 10 years that is totally focused on two things, producibility and product cost. There is a group of engineers that have been there dedicated to that and then we picked that process up and we put it in our new Asheville, North Carolina manufacturing facility which was announced about two years ago and started producing parts about six months ago.

We will put the shroud in the LEAP asset first and then the other items that are on that hardware -- other hardware items that are on that chart will end up in the GE9x engine. In fact today we are actually running all of those parts in a GENx demonstrator engine because one of the big focuses of our technology maturation process is to make sure that we are demonstrating this technology works in the environment that it is going to operate in.

By the time the 9X goes into service, we will have almost 2.5 million hours worth of real evidence that the technology is working and demonstrating value for our customers.

The third area that I thought I would talk about is compression technology. The heart of a turbo fan engine is its core and we have had a rich history over decades of developing the most efficient and stall-free compressors in the industry. We went to a new approach to this with the GENx with the use of [Bliss] technology and the powder metals on the aft end of the compressor and pressure ratio is simply the pressure at the beginning of the compressor versus the pressures at the end of the compressor. And the how one compresses air in a smooth fashion is a key to the fuel efficiency of the core of the asset.

With LEAP and Passport built on that capability, then when it came to the 9X to deliver the fuel efficiency of the 9X we needed a 27 to 1 pressure ratio compressor. That has never been done before. We can do it tied to the technology that Mark has given us, tied to the blade technology and powder metals but being able to do it is one thing, being able to demonstrate it is another.

And one of the big advantages that we have had here is we built this first compressor like this about a year ago. We needed to test it. Actually the only place in the world that could test it in essence the environment it was going to operate in was our GE Oil and Gas facility in Massa Italy.

So we plugged it in February 6 of last year, ran the compressor for 300 hours, demonstrated operability, demonstrated the aero mechanics, actually found that our fuel-efficiency implications were a little better than were expected. We took it off, sent it back to the line engineers, modified it. We fired the second iteration of that about four weeks ago and so we are going to get a little bit better from a fuel-efficiency perspective feeding the 10% increase in efficiency on the 9X versus the 115B.

The last item I talk about is combustion technology and we have been on a 20-year journey but the journey really didn't begin with us. It began with the Energy team that had worked on technologies to deal with NOx far earlier than we were dealing with it in the dual annular combustion introduction in 1995.

Two things that really changed the game in combustion for us tied to that foundation. One is the use of twin-annular pre-swirl technology and the second one is the use of additive. Introducing additive here starting with LEAP gives us a 25% reduction in weight, allows us to go from 20 separate parts that needed to be braised and welded down to one part. It gave our design engineers in essence a brand-new canvas that they could work towards and it gives us a 5X improvement in durability of



those assets. So absolutely significant advantages to us and it puts us and our customers in a position that their NOx generation is dramatically lower than any of our competitors.

So now let's take it back up to the introduction of the product launch. I have shown you the four technologies that make this thing sing. We are delighted with the response of the customer base here, 79% market share and we have sold 8600 engines at 60 customers. Now it is time to go deliver all of that. We are well on our way through the certification program, now it is about taking the learnings that we got in the GENx program and how do we go accelerate the learning curve here to deliver from a cost perspective.

This launch is different from other launches. We've got a dedicated new product introduction leader who is totally focused on delivering the performance parameters that we have committed contractually.

From a schedule perspective, we are stress testing every aspect of our system from customers and are they ready to deal with this technology to our supply chain and our suppliers. We've got a dual sourced strategy for every aspect of our delivery so that not if there is an issue somewhere in the supply chain but when there is an issue, we have got capacity that can deal with those issues.

And then similar to Vic, we've got a laser focus around cost. We've got an enterprise wide cost team specifically focused on these technologies. They meet on a weekly basis, complemented by 11 technology specific lean labs that do nothing but focus on producibility and cost.

Then from an engine should cost analysis perspective as our sourcing teams are going out to negotiate with suppliers around the globe making sure that they have the best tools available to know what these technologies should actually cost.

So in summary as I said, we are in the middle of a decade worth of product renewal in a profitable way. There is no question that we are the beneficiary of generational investments in technology and I thank Mark every day for the GE Store because it is helping us to do what we need to do for our customers and our shareholders.

Thanks for the opportunity to talk and I would like to introduce Anders Wold.

Anders Wold - General Electric Company - President and CEO, Ultrasound

Thanks, Bill. Good morning. I am Anders Wold and I run the Ultrasound business. I came to GE through an acquisition when Jeff decided to be serious about ultrasound. That is 17 years ago and it has been a fantastic journey. I would like to share that with you today.

Also if you didn't get it yet, my accent, I am Norwegian. I run this business from Norway and basically own Bill's planes. So make them reliable, right?

So Healthcare is a business to be very excited about. Not only do we have a great position but from a technology point of view, we have so much in store to build fantastic momentum and I will talk a little bit about that today. Just as a way of example, last year we launched 40 different new products, NPIs. And that was from 30 the year before so there is a building momentum here and showing of six of them here, all these six that I show here, CT, MR, ultrasound all gained 5 to 10 points market share across the board globally. So brought a lot of growth and profit back to the business. That is one example how we are doing that. I will share a little bit more on Ultrasound because Ultrasound is going to be probably a little bit of a template of how we are going to run this business going forward.

But before that from a technology imperative point of view, the market is definitely changing quite a bit. Customers are not necessarily looking for just buying another box and a better image today. They are looking for outcomes. There is a lot of economic pressure in this market. On top of that we want to accelerate so we really want to put in a much faster speed so we are forcing the market to replace faster. That is another key imperative to what we do here.

On the cost side, we want to drive much more gross margin into the business here. So we are taking costs out from an engineering point of view, looking at materials, low-cost designs and things like that. And of course we launch NPIs with these higher rates, gives us an opportunity to also be more competitive from a price position and access to value markets for instance.

Another platform that we are working hard on that is going to be very important going forward is to make them software enabled. Think about the analytic story, how we are going to make remote access to customers' installs and provide a whole different level of being distributed in our health approaches. So that is going to be productive for customers and for ourselves. And big data is going to be a major part of that going forward in some of our businesses.

Finally on service, we have a huge service business today. There is a lot of focus to get the margins up in this area. Software offerings is going to be important as we are connected. We will enable new packages to drive that as well. So that is basically where we put our bets in terms of R&D.



GRC is for Healthcare because we are so diverse. This is really the GE Store because it is so many different hundreds of products there is no need to replicate all of that in our centers. So we have a core focus to get a lot of the basics, the core piece done at GRC. So that is one piece.

In addition to that, because as we grow and want to go through adjacent markets, that is a lot of long-term investments, special ones, some examples highlighted here whether they are in the MR or in these CT business or even in the Ultrasound business. If we didn't have those technologies, will be in less competitive situation in the marketplace. So another great advancement here at the center or in other centers around the world.

The other area which is really looking long-term for Healthcare, today Healthcare is very much at the hospital level but we expect that to be much closer to consumers as we go as each of us are very, very differently today the treatment is happening by basically diagnostics based on some symptoms. That is not a very good approach today in Healthcare. You should absolutely think about yourselves as a unique individual and as you get sick, you get even more unique. So it has to be very, very personal and we want to have systems, processes and equipment that are able to address that going from symptoms to personal signatures looking at yourself. That is one piece.

Brain is another one and of course, digital health. I think about digital health as distributed health. We want to get outside of the hospital and be much more connected and reach more at lower cost. So those trends, the GRC is very focused on that and we need to have that kind of contribution into our businesses.

Now let me take you through some of the Ultrasound businesses because that is the foundation for what we want to do and change Healthcare a little bit going forward and looking at growth and growth on the top line as well as the margin.

The ultrasound history is going back to 1995, there is nothing, \$200 million, really no margin, not serious about it. Jeff decided to go after a couple of acquisitions that was the foundation. A few years later maybe \$500 million and after that, we had 10% growth every year and it is continuing in many ways.

How did we do that? We looked at this business to be truly global, global in the right sense. We are at present in more than 150 countries today. We have more than 40 products. So we cover all applications and all price points. So with that depth and breadth, you are everywhere, you are thinking of every customer. There is no other competitor today who is doing that. They are focusing on high end or some specific application or in the low end, etc. That helps us big time by that approach.

So we have more than 10 different centers that helps out with that, very approximate to markets, learn about the markets, create a little bit of internal competition to make certain that we get the best of everything. So that is the foundation to do that.

So we are in a leading position technology wise with customers. Our market share are by far -- at 2014 we are a \$2.5 billion business in a \$6 billion market. And the ultrasound market has now become the biggest imaging modality market today, the biggest and the fastest-growing. So that is a very interesting investment from 1995 to 2014.

Another element because we have this breadth and depth and the engineering teams, we can launch more than 10 different products every year and that is another piece that is very, very important because you can compare this business within electronics business. How often do you change your phone? This is electronics. So we have to renew it.

So with 10 to 15 products, NPIs every year out of a portfolio of about 40, we turn around the portfolio every second and third year and that creates a lot of headaches for competition, great for customers in the way that they like it, enjoy it but they are also forcing replacement cycles. It is a very, very good engine and that is a key part of the success.

On top of that we have put a mantra in for the team. So you do cost out first before you do your NPIs so we have a track record of about 10% cost out of every product every year as we go along. Don't introduce a single product if it -- it has to be lower all the time. So that in itself has driven massive margins into the business and also brought us at different price points as products have become from big systems to smaller systems and as image quality, you look at the image on the left on the top here, you have to have a pretty good imagination what that is. It is pretty clear what the fetus is in 2015. That is what you see today and that is what you get today.

So with that, we have seen that this market you can segment it out, you can be on different levels whether you are in cardiology or radiology or obstetrics, gynecology, these are very different ones. You have different systems, different technologies to get there. So learning from this has brought us to different levels and I will just show you a little bit of where we stand today in terms of images today and keep you a little bit out of your financials.

So up at the left-hand side here, you can see twins, six-week old twins. This is the state of the art today, launched Q4 last year. This product was the Voluson V10 and it sold \$130 million in the fourth quarter alone in itself. So a blockbuster of a product and patients are demanding this now, not our hospitals but the patients because they want to see those images. And you can see the fetus there on top there.



Down left is a cardiac image, maybe less compelling from that perspective but very, very important. It is a fantastic technology. GRC has been intimately involved in that development and you can see a four chamber heart, valves opening, shutting. You see it in two planes on the left-hand side and you see it a 3D or like a 4D representation live here and it is all happening in real time. And that is a value ultrasound today versus MR, CT, all these others which you have to take the image and then go back and look. This happens at the patient's side and you can make a diagnosis right there.

So it is safe, no radiation, easy to use, portable, low cost, all these different things. What drives this imaging modality is strong growth today, very, very preferred in the early stage of a diagnostics cycle. So that is one area that we want to keep driving.

The other one would be the cost piece here, the gross margin here. So how do we do this? We have been driving the gross margin. It is really a very rich margin business today and you would think why would it be because we have all these low-cost equipment and there is plenty of competitors. So why would we be in this situation? It is relentless focus and a culture to drive out costs to bring us to a lower price point all the time.

So sourcing is of course like we had heard from the early presenters here, a lot of strategic alignments making certain that we have full focus on that and then following the electronics industry. Moore's Law is fundamental in this business and then utilize these suppliers and work with them to make sure certain we get to the lowest price and cost point.

Value engineering is another key element. Before we do the NPI, we have to take out the cost. So we have hundreds of projects and it is interesting to have many different plans at this stage because then you have a little bit so we can play with different plans to make certain that you have the best cost out solution, whether it is by design or some other way. So that is another key thing of that.

The other pieces that I talked about, 10 to 15 NPIs every year, that is the FastWorks cycle. We can do that. So we don't make many big bets and many small ones to make sure we are accurate all of the time so that keeps a much faster pace in terms of getting this launched and we can test them out.

Finally, today the market is like most electronics, you expect durability. We don't as a Company expect to have any cost after the launch of product. We expect only returns. So we can't have products failing. So we really develop them with a high level of reliability. The new wave on this one was an ultrasound 2X reliability, now we are looking at the 4X reliability. In fact we offer for all our value products today more than three years of warranty for instance. So it is good customer protection as well.

Just to make certain you kind of get this on what we try to do in Healthcare now and look at what happened in Ultrasound, so we took all the big systems and made them smaller by weight, by size, by portability, by addressing all customers, all customers globally and by application. That is the key and that needs to happen in all the other parts of Healthcare as well. Look at the entire breadth and depth of going out to every customer.

So to do that the foundation is to really do customer backed R&D all the time. So that is a key part of success.

The second one will be the product cost out and we will see much more of that going forward. I think we have a pretty good plan and the cardinal rule, do the cost out before we do the product development in terms of NPIs. So that is another shift of gear on what we want to do.

Then of course, do it fast, do it fast all the time and I think that is going to help us in the healthcare industry to force customers and the market to replace even faster. So that will be another foundation for us and the ultrasound success story is built on these three things and that is where we are going to take the rest of Healthcare.

So with that, I think we are having a break.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

We would like to introduce a quick 10 minute break so please get refreshed and be back in your seats in 10 minutes and we will go over to the next part of the program. Thank you.

(break)

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO



Folks, if you could take your seats please. We would like to get started again.

Joe Mastrangelo - General Electric Company - VP, Power Conversion

Thanks, Mark. Welcome back everyone. My name is Joe Mastrangelo, I lead the Power Conversion business which is the former Converteam acquisition that is part of the Energy Management business. I have been in my position since 2011 when the acquisition closed. Prior to that, I was in the Oil and Gas business. When you look at my 22 years with GE, I have actually spent the majority of it working outside of the US across various parts of the energy value chain.

What I wanted to do this morning is start off with a discussion around where we think we stand as far as power conversion and how we started. I think the first thing I would tell you from the investment that we made in Converteam almost four years ago, we got a great product portfolio and a great technology base and great technologists as part of this business. And I will show you some of that technology here this morning and then also explain to you about how we bring value across other GE businesses but I will start off first with talking about how we grow the gross margins in this business and how we get this to be a well performing GE platform.

Now when you start off and look at the early signs of being extremely positive, if you look at our equipment backlog which now stands at \$3 billion, that is double of what the backlog was when we acquired the Company. And a couple of things that I would tell you about is how we have shifted this portfolio. When we purchased the company it was a predominantly European-based company. Today the majority of our orders come from outside Europe in areas that are growing their consumption of energy.

The second piece I would say is we have gone through and made significant investments in really three main areas in this business to help improve performance. The first one is we built the service business and doubled its size since acquisition but that doubling in size still only captures about one-third of the opportunities. So there is more room to grow.

We have improved the fulfillment capability in the business and I will talk a little bit about that later on in my slides. The last piece was driving efficiency in how we operate the business and in how we fit into the overall GE portfolio.

What I would like you to do as you listen to me talk this morning is to think back to the presentations we heard before the break and realize that all the knowledge that you hear from the people who talked this morning, one, I have access to. And two, I brought other great people in from GE into this business to help us accelerate the learning curve and get this investment to deliver the return that you deserve as investors in the Company.

Let me now say why do we feel the power conversion technology is important to GE. This is a chart that depending on what you use you have heard all of these different statistics before around the overall energy value chain but I want to spend a few moments talking about what it means to me as the leader of the Power Conversion business.

With electricity demand forecasted to grow, the one thing I would tell you is 45% of the electricity consumed in the world ends up on an electric motor. That is one of the core products that we have inside our business. You heard Vic talk earlier about off grid power and also renewables. We have technology that I will share with you today that allow us to optimize the performance of that. What we do as a business is we manage the intersection of the grid, the off grid and the industrial process with great technology and software that allows you to drive efficiency into the business.

Then the efficiency point when you look at the future energy demands, if we don't gain the efficiency that you see on this chart, the demand of energy goes up four times what we are forecasting today. Two of the main drivers of that efficiency gain ties to the technology in Power Conversion.

The first one is rightsizing your electrical components to the duty that you need in your industrial process. Many of the applications that you see today whether you are talking about a refinery, a steel mill, food processing plant have fixed speed technology and what that means is basically you turn the motor on and the motor runs at a speed regardless of the power required by your industrial process. We have the technology that allows you to manage that variation and reduce the consumption to increase industrial output.

So it is a technology suite that fits well across the entire energy value chain. When you look at what we do as a business, we basically do three things. The first one is we take motion and turn it into electricity. So think about a wind farm or a hydro dam. We take the power of that motion and generate efficient electricity.

The second thing we do is we take electricity and turn it into electricity. Now what does that mean? Give you two examples. The first one is if you think about an electric rail grid, that grid operates at a different frequency than your power grid. We have the technology that allows rail companies to both utilize power from the grid or sell power back into the grid in an efficient manner.



The second example that I would give you is on offshore platforms, where an offshore platform is essentially on average between \$100 million and \$140 million micro grid and I will show you an example later in the presentation about how we help those operate more efficiently.

The third thing that we do as a business is we take electricity and turn it into motion. Electricity turned into motion. It is a motor or generator hooked up to a propeller on a ship, a compressor in an oil and gas application, or pumps in a water desalination application. So we go across the entire value chain with essentially two products.

The first one is motor and generators so rotating equipment very similar to what you heard Bill and Vic talk about this morning. Then the second piece is we have drives which are power electronics equipment very similar to what Anders talked about in the Ultrasound space. We take those two pieces of technology, combine them together with software to create integrated systems to drive efficiency and production across the value chain.

The third piece which is the piece that we are building as GE, and when you hear Rafael's presentation after me, you will see an example of how we can bring this into our businesses, we do these in offshore applications, high altitude mining applications, areas that are difficult so we can bring the delivery and tap into the already pre-existing service and resources that we have around the world as GE to improve the performance of our business. But in a whole when you look at Power Conversion, Power Conversion is a business with broad domain expertise that improves the efficiency of industrial applications.

What I would like to do in the next part of the presentation is spend a couple of minutes talking now about two core technologies that enable us to do this.

The first one is around electric motor technology. So electric motors you basically have two types of electric motors, this is an induction motor. As of this morning, I got an email from our team, the facility that Bill talked about in Massa, we passed the test for the largest industrial motor ever built in the industry this morning.

Now that moment of serendipity has a lot behind it that has to do with the GE Store. So when you think about these electric motors, you would kind of say to yourself what would an electric motor have to do with an aircraft engine or a gas turbine or a compressor? That rotor that you see in the electric motor spins at the exact same speed as an aircraft engine. So as you are trying to increase size of the motor, you are trying to increase the speed of the rotor to reduce the size that you have the footprint to increase your power density, we were able to go into the Aviation team and pull their engineers in to help us with the rotor dynamics of that to allow us to scale up from a traditional induction application which is using usually between 10 MW to 14 MW to deliver a 20 MW application.

But then out of that rotor dynamics, we then came here to the GRC to look at bearing technology to improve the stability of how the motor performs and then knowing that many of these motors wind up in offshore applications, that purple piece that you see in the upper right, that foundation of the motor was a direct design that we took from Rafael's business in Florence that allowed us to reduce the footprint and weight offshore.

Now why is that so important? If you think about this product in and of itself, if we can reduce the size, increase the power density, you've got to think about what the customer is buying from you is the ability to reduce the space that they need, the steel structures that they need. If it is an onshore application, the size of the foundation and these civil works that they need so it makes the overall application much more efficient and effective from a cost standpoint on the CapEx side. In an operating side, it operates much more efficiently.

Now the next step that we are working on is going back to that test facility that Bill talked about this morning. We are developing an 80 MW induction motor to run at the test branch in Massa. We get two things out of that. One, Rafael gets productivity because the test that will run for Oil and Gas will cost less because we will consume less energy. And the second thing is we will have the largest highest reference induction motor in the world.

Now where do these applications apply? You can see they apply in marine in pump jet applications, they apply in title applications and we use them both in Oil and Gas and Power Generation so it creates efficiency for the customer. It is a step out technology but when you step out technology with millions of hours of operating experience, you know that when it gets out in harsh environments it is going to run to specification.

The second piece I will talk about is switching to the capabilities of our applications interacting with the software CoE to improve the performance of our customers.

So I want to spend a moment on the upper left-hand side of the chart around the power reliability. This is an example of a 140 MW offshore power grid application. It is a floating production unit with a drilling rig and it has a combined micro grid between the two locations. What we do as a business is allow those two platforms to interact with one another so depending on the loads on each platform, you vary the production of the gas turbines to reduce the operating costs.

Now offshore when you are operating the last thing you want is a blackout. So we have gone through and tested multiple failure modes to make sure that if any of you in the last second blinked your eye while I was talking, our ability to stop a blackout will be 10 times faster than an eye blink, 40 ms. It is proven technology simulated both in the software CoE here at the GRC and in our business. That technology applies across if you look at the upper right-hand side, that is an example from an arc furnace operation in metals or it goes down into a renewables farm, solar farm hook up into the grid.



Now in the bottom left, I want to spend a moment talking about that because you saw and heard Mark talking about FastWorks and the software CoE. If you want to see where the PowerPoint goes into reality, take a moment after the session today, go outside to the solution fair and you will see the product right in front of you. You will be able to play with it, you will be able to simulate docking a boat and it is a fantastic solution that we started working on in the fall of 2012.

We introduced it at OTC in the spring of 2013 and we passed sea trials and we had vessels out running with the equipment on it today. What you will see when you look at this equipment is what we brought was the domain expertise from our business of how ships operate and what the software CoE brought was the ability to allow the captain to control the vessel and also operate the vessel in a more effective and efficient manner. So it is a real example of FastWorks combined with domain expertise of the business and the software CoE driving value and better outcomes for our customers.

Now when you take this technology, I now want to spend a moment talking about how we tie into different industries across the energy value chain. I want to spend a moment talking about Renewables.

So on the left-hand side of the page, spend a second talking about offshore wind. This is a product that we developed with Alstom that went back prior to the Converteam acquisition becoming part of GE. What we were able to do was increase the reliability of the world's largest permanent magnet generator by coming here to the GRC and working on both our magnet design which is a direct flow down from what we get out of our Healthcare business and also our structural designs to make sure that the efficiency of the turbine works.

The second piece that we have is this 1.5kV power converter. Now this is a big deal in the renewables industry because the majority of the converters and renewables are 1kV.

Now the simplest way to think about the difference between 1kV and 1.5kV is to think about a hose and water. Imagine you could take the same size hose and double the amount of water that you can put through it. This converter allows you to put more power point to point than traditional converters. So what we can do with two units is what it takes our competition to do with three units. This 1.5kV power converter was technology that we brought from our Marine business that we then brought into Wind that we then moved over and applied to Solar.

If you look at the upper right-hand side on the Solar side, we have introduced a 1.5kV inverter line. This is critical because what happens with the 1.5kV product is you reduce the amount of copper that you need in the solar farm. So if you think about the amount of money that is spent to increase the efficiency of the panels, you gain that back by having a bigger inverter with the ability to flow more electricity through it in the short term.

Now it doesn't stop there, there is another example that you can see out in the solutions fair which is around silicon carbide power devices. This is the next evolution. If you look at the bottom right, the two pictures that you see are scale pictures of the core power device for a solar inverter. So what we are doing is we are moving from a power electronics application down into a silicon carbide module. It allows you to handle higher heat, it allows you to reduce the number of losses. It increases the power density of the inverter which again reduces the amount of copper that you need in the solar farm. It makes the solar farm both more efficient and more cost-effective with higher reliability.

This is how our business brings cost-effective performance to the renewables industry.

Now the next one I want to spend a few seconds on is around Marine and Oil and Gas. So I spent some time talking to you about the Marine applications of how we work on powering offshore platforms, the propulsion that we do for large LNG carriers and for freight vessels. On the positioning piece I gave you an example that I would like you to go out and see now. On this positioning and propulsion piece, I showed a picture earlier on of a potted propulsion for an offshore service vessel. That induction motor technology was actually combined with impeller technology from the Oil and Gas business to increase the efficiency of how ships operate.

Now on the Oil and Gas side, you will hear more about what Rafael does and what we do as a business is we help Rafael's solutions become more efficient and have higher power density and become more cost-effective. But outside of that when you look at where the technology goes, the two biggest things are the bottom part of that right-hand side of the page. The ability to integrate the mechanical solution, the ability to have a sister company that knows the gas composition or the oil composition coming out of the well, how you handle that mechanically, how that mechanical handling what the power requirements are and how the two of us together can tune that to make a more efficient Oil and Gas production application.

The last piece is being able to incorporate that in with the capability that we have in Florence to do modules which allows us to do the electrical brain, nervous system of the overall power management. We now have the capability to do that in module-based construction which reduces the risk on the project and also the overall cost for the end customer. So this is ways that we bring to both Marine and Oil and Gas true customer productivity.



Now coming back to the gross margin expansion, one of the biggest challenges that we had when we acquired Converteam was on the left-hand side of the page. The business was running at the time with an on-time delivery rate of around 25%. We have doubled the output and tripled the output across most of our factories and our on-time delivery is now in the low 90s with a path to get up to the high 90s around delivery.

We were able to do that and how do you double and triple production if you go back to the business has only been part of GE for about 3.5 years -- how do you do that in such a short time frame? Because again you reach into the GE Stores and you bring people over that have done this and other parts of GE to help teach the people that come into GE as part of the acquisition to improve the performance.

But outside of the physical factories, which we are very proud of, we are also able to bring in other areas of expertise. So back to my example on the motor example, what we were able to do was to plug into pre-existing engineering centers in Mexico and Poland and drive both increase the capability of our engineers and drive down the engineering cost per hour to be able to develop the product.

Then on top of that when you think about what do you mean by simplification? When we bought the company we had over 300 discrete engineering design tools. Having 300 discrete engineering design tools across a small business creates design proliferation inside your business. So you have a lot of different model numbers and a lot of engineering drawings which then makes it difficult to go back and get volume by sourcing savings, increase the quality and also drive productivity on the factory floor. We have now got that down to around 30 and then we want to drive it down to single digits and that allows us to really start sharing globally how the business interacts versus having it be a small regional business.

Then around manufacturing technology, what you heard about this morning, our factories are a long way from being a Brilliant Factory but we've got the roadmap that will get us there and I think that is one of the most important things of being able to pull in the technology.

And the last piece is you heard Vic talk about integrated testing capabilities for the H turbine. It is a core competency in our oil and gas business and we are building that same competency here in power conversion.

When you add up the investment that we have made, we are looking at being able to add 5 points of gross margin over three years to the business as we go forward.

So when you take that and you come back to the three key drivers that we look at, electrification growing, diversification micro grids and energy efficiency, we've got the technology, we've got the capability around systems with great people. We can expand gross margins by better managing the overall designs and how we structure our products and the goal is to be able to -- is that we are going to build a GE platform that we are proud of that delivers the returns that you expect as an investor in the Company.

Thanks for your time listening and I will turn it over to Rafael Santana.

Rafael Santana - General Electric Company - VP, Turbomachinery Solutions

Thank you, Joe. Good morning. I lead the Turbomachinery business. I have been with the Company for 15 years now and only three of them in the US, all 12 outside.

With that let me start with we had a very strong 2014 in the business. We expanded both our market share but we expanded also our profitability in the business and we have been able to expand by more than 7% our backlog. It has positioned us well in an industry that during that timeframe was declining. So you look into 2014, it was coming down anywhere between 5% and 10%.

With that we continue to see some challenges in the industry and there is three areas that I want to highlight to you in terms of focus areas for us.

Number one, I think we have been working closer than ever before with customers and it has been an effort on helping them on getting more out of existing assets. I am going to talk to you later here about our upgrades business. It has been a great history of success on helping customers through technology to get more out of those existing assets.

The other piece has been our around speed to market, guaranteeing projects are delivered on time which brings me to the second point here which is excellence in execution. We have been shortening our delivery cycles, they are down. Our on-time delivery across our product lines, they are in the mid to high 90s and we are continuing to improve there.



Back last year we started a very intensive cost out program and variable cost productivity in the business and that is delivering us great results. And when I think about cost out, I think one of the key parts of this program has been around allowing engineers but also allowing buyers to have cost tools that better allow them to design for costs but also whenever you are negotiating to be better equipped to drive those.

With that the last point I want to bring up to you here is we are very proud of the NPIs we have been doing. That is opening up for us some great spaces that we didn't have before. I think one piece I would highlight to you is NovaLT16, this is a 16.5 MW turbine that opens up \$1 billion equipment space for us this year, something we didn't have the year before. So we launched this September last year and when I look at the play we are running, it feels good. We feel like we have got a good portfolio here to partner with customers, help them maximize on their returns.

When I look at this portfolio, it is a portfolio that expands itself across what I will call the gas infrastructure value chain. We are very much focused on upstream and midstream. And when you think of the various applications we go into, this is about compressors and compressor modules and power generation modules that will support customers on reinjection of gas and we do that onshore and offshore.

We are also going through the LNG business and the [foreign] part of our business. We do that offshore as well with the floating LNG and pipelines are a key piece of our business. Important here when we are serving customers on those various spaces we have the opportunity to tap into technology that comes from GE from again Aviation, technology that comes from the Energy Management side of the house, technology that comes from Power and Water which makes more than \$1 billion that we are able to pull through which brings again a great advantage to us, an advantage that we need then we look at some of the challenges our customers are facing.

When I think of those challenges, there are still challenges on making sure you are on time on your projects, you are on cost and there you are maximizing and monetizing the fuel opportunity you have out there.

And when we think of those challenges I think one aspect is some recent surveys out there continue to indicate more than 70% of the time some sort of delays to various projects. When we think on costs, the complexity tied to some of the solutions out there they have certainly increased. Just as an example here as you look into the topside weight, it has grown by more than 4 times on offshore platforms. With that there continues to be opportunities to monetize gas that is being flared and not fully utilized.

So I thought about here sharing with you some of the examples on how we are helping customers through that.

The first one here it has been around modules. I think if you could reduce by more than 15% the cycle time to deliver a solution to your customer, think that at the same time you do that you could reduce the complexity and the risk of having to build entire plants on very remote sites. Think if you could do that by engineering, manufacturing and fully testing those solutions prior to them ever getting to site. You heard here a lot about the Massa, that is the world's largest full strength gas facility in the world. We have developed that in the course of the last four years. This is a big part of our business. We have been growing scope as we do modules as well and it is a big part of our last four year's growth.

On offshore, we have had the opportunity to partner with customers like Total. You heard here from Joe, both footprint and weight drive a large piece of the costs tied to offshore solutions. We have been able to reduce by more than 20% over the last four years the weight and footprint on those solutions and we got back into markets where we didn't really play before. So it has also been an area we continue to make progress.

The last picture you have got here is a picture out of Iraq. This is an opportunity where we have taken on a project where we have really taken on a wing to wing approach on the rehabilitation of some compression stations. So gas that was being before flared, it is now going to be transported so it generates energy. Because we took I would say more scope out of this, we have been able to reduce costs, reduce time for our customers and we are bringing in technology with turbines that are going to be more efficient to do that.

When you think of the technology needed to do a lot of those things, I think the great piece here is getting those from inside the GE Store. Take for instance our Power and Water business, when you think of Statoil moving in Norway from shallow water into deepwater offshore exploration and the need to have again optimized the footprint and weight for those solutions, that led us to introducing LM6000 which is very much in our Aviation product into these applications. That has allowed them again optimizing footprint and weight, maximizing returns here for the project.

It doesn't stop there. Freeport LNG, that is the very first electric LNG plant in North America. That is a project we won last year, a project is that if I go back three years ago, I would have had to go to one of my competitors in order to purchase 50% of the content here. I am able to do that. I do it with Joe and his team so we won this project and we moved from being fundamentally an equipment supplier to a turn-key provider. So it is a big win for us.



We haven't stopped here, NovaLT16, we are very excited about this turbine. It opens up again \$1 billion space that we can go and quote this year. We already have some orders for it. This was not just about designing the best turbine out there on its class range, it was also about having the best-in-class cost and I think that is how we have been positioning ourselves here.

A couple of points I want to highlight, it is how we got to this turbine. If you look at the FastWorks framework that we applied here, that allows us to get there in 30 months, something that would have taken us five to seven years before. We have had the should-cost totals here apply. We feel like we are in a very good position here to drive again incremental opportunities for us to grow the business.

In closing, I would say Turbomachinery that has really been a core piece of our Oil and Gas portfolio. It has been with GE for more than 20 years now so it was part of the Nuovo Pignone acquisition. It is a business that has grown in size by more than sixfold. If you look at the profit rate, we have grown it by more than three times. It is a business that has got a history on executing through cycles. We have been growing it with running a very strong play in terms of optimizing our costs for the business and we continue to really invest in new technology that has really positioned us well to drive profitable growth in challenging times in Oil and Gas.

Thank you.

With that, let me introduce Tina Donikowski.

Tina Donikowski - General Electric Company - VP, Global Locomotive Operations

Great. Thanks, Rafael. Good morning, everyone. I am Tina Donikowski with our Transportation business where I lead Global Locomotive. I have been in this role for just a little over two years but that is not a typo on your charts. I am closing in on four decades with GE and all of it in GE Transportation. So you will need to pardon me if I can't dampen my enthusiasm and passion for my business because it is going to come through.

Okay, let's get started. 2015 will be a great year for us in Transportation due primarily to the strong orders performance we saw last year. In fact, we had a record year for orders. We booked \$9.6 billion in orders largely due to our investment in technology. We ended last year with \$6 billion in equipment backlog which was over 2X as big as that number was a year ago. That's why it is a great time to be at GE Transportation.

This year we will launch our Evolution Series Tier 4 locomotive. We will be first to market and we have been approved by the EPA which pretty much is our first technology imperative. We want to lead with products and technology, not only in the railroad industry but in mining and marine as well.

We then take those products, take them to our services business, marry data and analytics as you have heard from everyone else, and deliver great customer outcomes.

Finally, our investment in those platforms and that technology allows us to grow globally as we have in places like Australia, Indonesia, Kazakhstan and Brazil. So that is how we think about our technology strategy.

Now let me take you deeper into the technology itself. If you were to go deep inside the locomotive, take an MRI of the locomotive, you would find the vital organs, you would find the diesel engine, the heart, you would find control in power electronics, the brain and the nervous system. You would find traction motors and an alternator, the muscles, and you would put all of that together with system strength and software and you would have a locomotive. But that is not all.

Our investment in those vital organs allows us to grow other products and other markets. The Tier 4 engine itself will not only be launched in locomotive, we have received the first three orders to put that engine in a marine application for offshore supply vessels. So it wasn't a brand-new engine either that we had to do for Tier 4. Our investments in this platform date back to 2005 when we first came up with the Evolution series and that investment has seen us through Tier 2, Tier 3 and now Tier 4.

Now that is not to say that hitting Tier 4 is any small putt. Hitting Tier 4 is a big technology challenge. When the EPA came out with the regulations for Tier 4 way back in 2008, they said you had to meet that requirement by 1-1-15. To meet that requirement, you had to reduce the emissions 70% from Tier 3, a 70% reduction in NOx and particulate matter.

Now it was commonly believed at that time that the way you would accomplish this is through the use of after treatment with urea. Urea is an ammonia-like substance used to clean diesel exhaust. Now it is also commonly thought that in order to scale, this technology was used in automotive and on the highway, this after treatment in urea. But when you scale from a car to a locomotive, that after treatment winds up being a 4000 pound structure that sits on top of the engine. It is like an SUV sitting on the engine sitting on top of the locomotive.



Nonetheless, we started down this technology path because we had to meet emissions by 1-1-15 and as we got a little more mature in our concept and design, we started to talk to our customers who told us in no uncertain terms, they wanted nothing to do with urea.

Now why did they say that? They said it because they didn't want to handle another substance potentially hazardous on the railroad and they also recognized that dealing with urea would cause them to spend \$1.5 billion in their industry on infrastructure to deal with that.

So now it was time to pivot as they say in FastWorks. We had to come up with a Tier 4 compliant locomotive without after treatment in urea. As you heard every other presenter say, we went right to the GE Store. We called our friends in Aviation who understand how to maximize that last drop of efficiency. We called our friends in Power and Water, they burn a lot of fuel as you heard Vic say and they understand combustion. We called our friends in Oil and Gas who helped us with our turbochargers.

Finally, we come here, here to Global Research where the technicians and the PhDs and the technologists have helped us for the last 15 years on our engine technology.

We got all of these extremely smart technical folks together and we used a process we call red team/blue team. We say to one team you, you come up with the best design and maximize simplicity and cost. To the other team, you, you focus on value and efficiency and then we are going to pick the best design from each of you -- the best design, we are going to let you guys compete. GE people love a competition so that was all good. In essence, we took parts of both designs. That is how we were able to achieve Tier 4 compliance without after treatment in urea.

Now I will tell you that that happened back in 2010, that red team/blue team and we continued our investment 2011, 2012, 2013 and these are sizable investments. In the entire Evol platform we have invested \$600 million. In Tier 4 alone, we will have invested \$200 million. There is no way a business of our size could manage that level of investment. That is why we are part of the bigger GE. Together we can invest in technology like that and bring it to the market.

So now let me fast-forward for you. It is the beginning of 2014. We have continued our investment, we are bringing up our new Fort Worth facility to make locomotives. We've started a second engine site to remanufacture engines and again, we go back to our customers. After all we only have less than a year before the launch.

Our customers tell us they don't need any locomotives for 2015, they aren't seeing the demand. They can wait out this new development. In fact, one customer told our CEO, I suggest you stop investing, slow that down, we don't need it.

So again, we took a deep breath but we persevered and something happened from the beginning of 2014. The market changed.

Through the tough winter of 2014, railroads took a big hit in velocity which is their key metric, that is throughput for them. At the same time they saw their demand start to increase, demand for transporting crude, intermodal with the US economy improving, grain; there were headlines that they were worried that grain would rot in the field before it could get to processing. Suddenly our customers were facing a lack of power. But we were there for them.

By the time 2014 ended, three things became very apparent. Number one, we were sold out of our 2014 capacity. They needed power and they needed it right away and we were able to give it to them. The second thing, our competitor announced at that time they would not have a Tier 4 product until 2017. They have since revised that to say maybe the second half of 2016.

The final thing that happened, our customers rewarded our investment with over 1000 Evolution Series Tier 4 locomotives for delivery from 2015-2017. The year ended very differently than it began.

But there was no time to pop the champagne cork and high-five each other. Now it was time to get down to business. We have to focus on execution. First, technically. We want to make sure our Tier 4 locomotive runs exactly as customers need it to. So we have had five prototypes out running all of 2014 learning, going through tunnels, through hot weather, through cold weather. They will be joined by 15 more preproduction units this quarter. We learn from those units and our railroad chief mechanical officers are very interested in this launch. We meet with them bimonthly, let them know what is going on.

Likewise as you heard everyone else say, we are laser focused on our cost for this product. We know the cost of our preproduction and we have line item detail walking that cost to our production cost. Lucky for us we have volume and we have made the most of that. We have had two suppliers for every critical part and we were able to go along with those suppliers and take advantage of that competition. You will hear Dan talk right after me about managing the critical Xs. Our critical Xs our labor, material and design out. We want to have that all ready at the time of launch.



Now none of this would be possible without the right team in place to execute. We have done this launch a little differently. We drafted top talent from every single function, engineering, sourcing, manufacturing services, and we put them together under one leader and they have exactly one mission in life, to make a successful launch. They have a shared scorecard Tier 4 on a page and we have weekly reviews with our CEO.

I've been with that business a long time and I have to tell you I have never seen the speed and intensity before on a launch like we have on this one.

But it is not enough just at the core team and me and a few others are totally dedicated to Tier 4 which is why we've started a little campaign. We wear these green wristbands and they say simply Tier 4 Proud. We want everyone in our business totally rallied around our mission of a great launch of the Tier 4.

At the same time we continue to invest, this time in manufacturing. We are investing in Fort Worth which is a best-in-class facility for producing the locomotive. In Erie and in Grove City, where we do both new and reman engines and we are implementing the things Christine talked to you about in the Brilliant Factory. We have sensors right on our machines because we can't afford any down time in this year of execution. Those sensors and the elements of the Brilliant Factory have already saved us 1 point of unplanned downtime additionally helping us to hit our cost targets.

So we are invested in manufacturing and we are expecting our return. As you heard Bill say, this launch is different. Instead of going all the way through the design process and then figuring out if we had what we needed, we have iterated. We used the red team/blue team. We have made changes as we have learned. Instead of launching with one supplier for every part, we made sure we had multiple sources in order to get the best competition and instead of having just one factory or one site, we have multiple factories, many places where we can manage the wage, the productivity and ensure that we can execute for our customers and we are implementing the Brilliant Factory because that is what we need to accelerate our cost out.

That is why it is a great time to be at GE Transportation. Despite the market uncertainties, we kept investing and thanks to the GE Store, we are ready. Our employees are excited, they are all in and they are Tier 4 Proud.

Thank you very much and I would like to call on Dan Heintzelman.

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

Thanks, Tina. So I think you have heard how our GRC kind of stands at the center and has helped our product line leaders to bring breakthrough products for our customers, really changing economics for our customers and we are enjoying a lot of success in the marketplace as a result of that.

What I would like to now talk about for a few minutes is how we are going to make sure that those new products and this success we are seeing in the marketplace is going to improve our outcomes and our economics for our shareholders as well.

So with that, I would like to just say we are going to talk about gross margins and how we are approaching this challenge and engaging all parts of the business and setting up a framework that we can drive down into the various places that are going to contribute to this.

So as you know, our margins have been improving largely as a result of this effort we have been on to improve SG&A ratios or drive SG&A out of the businesses or out of the corporate end of the businesses. Gross margins at the same time have been going down and we have been facing a lot of mix headwind as a result of a number of new products. Number one, in some parts of the business growing faster than others.

Services has continued to be a very strong component of the Company and I can tell you working with the services leaders that we have a wonderful franchise there and a great game plan to keep that very, very strong. The equipment side has been improving as well, however not as fast and the equipment side of the business has been growing faster than services. Now of course in time that will feed the services franchise and we like to see that but what we also want to see is margin growth on the product side as well.

We built this kind of programmatic approach and I will show you in a minute how we have structured this. In my experience, I think one of the key elements of this is getting all pieces of the business aligned and engaged and that means product management in engineering, manufacturing, really all pieces of the organization have to play. All pieces of cost have to be in play. So we have to have a structure that will allow us to get visibility and drive improvement everywhere. So we have set up this kind of XY system. The Y is margin improvement. There are many Xs that will affect that Y or drive that outcome.

And then my role and some of the things Jeff and I are trying to do is make sure that we can just like on the technology side, we can use the technologies that we have been developing or experiencing in different businesses, we can be sure that we are moving them out into all the corners of the Company where they can be impactful and help us along in this mission.



So simply put, if Y is product and services cost, I want to keep this simple. It is material, it is labor, it is overhead. It is cost of quality, there are a few other little Xs that we have unique to some of the other businesses but we have set targets, defined what those are, we have set targets. We brought new tools to bear in many cases on some of these Xs for different parts of the organization and we've got owners. We've got names that own these targets within each of the businesses and we have aligned our incentives. Our pay is aligned to this outcome and flowed down deep into the businesses so there is no confusion over what success is for the Company and for ourselves personally as well as for our shareholders.

We've got a pretty good framework set up. We think we've got good tools to bring to bear and a framework to make sure that everyone is involved.

So Jeff and I have kind of taken this on to drive this across the Company and we've got a process with each business where we are looking at their structure and their progress against it. We are identifying areas where we can help or we can bring some of the store if you will to help them through some of their individual challenges. And we've got a game plan within each of the functions around what they are doing that will directly impact this mission and many new tools as I said that we are bringing into play as well.

So just to kind of give you a couple of examples here in supply chain and sourcing. This idea of achieving cost targets is crucial and those cost targets need to be set in accordance with what our value expectations are and profit expectations are based on what the market will bear for the price of the products.

And we've got a very strong correlation now between what the product leaders are defining and what targets we are setting for engineering and manufacturing as we bring these products into place.

We have built some frameworks around how we can measure every corner of the Company on this very simple thing we call operating cost per hour. So we have a framework for looking at engineering as well as manufacturing cost per hour. And this little example here, this is in PowerGen Services, we have a framework of repair shops around the world. We have closed repair shops, we have built new repair shops. The goal is always to be sure that each year our operating cost per hour is coming down. We've got many tools to make that happen. Some of them are associated with labor productivity or labor costs, some of them are associated with the places we do business and largely this is a great example, 16% lower cost per hour over three years by kind of using this playbook.

Engineering is the same way. We look at where we do the engineering work, we are always trying to find a new place that can contribute to the system that may have cost advantages or be specialized and this is why I think Mark has research centers in many places around the world.

Advanced manufacturing, Christine showed you this morning some examples of how we think manufacturing technology is moving forward. The way I think of this, we've had a long history of working lean manufacturing and variable cost productivity in many of the proven tools if you will to work on improvement in manufacturing. And I think this idea that as you have seen today, big data, the Moore's Law, Metcalfe's Law, the things that are driving improvement or enabling improvement in our products can have the same kind of an impact in our own operations. And we have to be very deliberate about how we think about what those are, how we develop and pilot them and then how we move them from one part of the Company to another as we prove out these concepts.

We've got both the physical world and the digital world at play here in the manufacturing arena as we try to drive this change. This Oil and Gas example is another great one I love because as you know many acquisitions, many, many disparate systems and for us to look across those systems and find opportunities for improvement is kind of hard work. There is a lot of manual searching if you will and through some of the big data techniques that are possible today, we are learning of as we apply to our installed base, we are starting to look at how they can apply internally. And we found some great examples around how we can very quickly get cost out by looking at the global sourcing -- sources around the world not only for very similar parts but also for parts that have similar kind of shapes and characteristics that you might otherwise not look for in this little treasure hunt.

So some great tools we are bringing to bear here. Engineering, this is about achieving cost targets early. You saw the great success we are having in the markets with the products. We have very pointed targets for getting costs out soon so that we can take advantage of this rapid move into the market and build and sustain a lead in the marketplace and deliver the profitability that we expect with the success we are having on these product rollouts.

Should-cost tools has been a real new opportunity for us so we are doing a lot better applying the tools available to help engineers understand what something is going to cost based upon the design that they have selected. And the speed of the situation or these new tools is giving us more opportunity to not only make performance in the product but to make product cost targets as well.

So engineering plays a critical role here, they are very much engaged and as I said earlier, their targets, their compensation schemes are aligned to the same outcomes that the manufacturing teams are, product management team. So we've got good examples of how this is working, both on the new products as well as legacy products because we are constantly as you know through the services franchise, we are constantly introducing new technologies to the installed base. And that is giving us an opportunity to not only enjoy that installed base but to bring lower cost solutions into play as well.



So we have a framework trying to make sure everyone is engaged across the Company, that incentives are aligned and that we can deliver this margin improvement, this gross margin improvement and we've got a great lineup of products. You saw a few of them here today and I would just reiterate one more time how important this research center -- all of the research centers are as kind of the glue in the center of this that is helping us to not only break through on products but break through on manufacturing and bring that process and technology improvement into play on the margin side of what we do.

So with that, what I would like to do is shift to Q&A and maybe, Mark, you can come up and we will entertain some questions.

QUESTION AND ANSWER

Unidentified Audience Member

A question for you, Mark, and then I actually have a question for Vic. How do you measure productivity and when you start thinking about 5% of sales being spent in R&D and sometimes that sounds like an arbitrary number, 4.5%, 5.5%, 5%. But at some point it is a pretty big number. So how do you measure productivity?

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

So the way we think about what we should spend is in light of the markets in which we play. So we play to win in the games that we are in. So you see in Aviation for example, they are redoing their entire product line now so we are spending heavily to win the marketplace and we are doing what it takes and you can see the results shown there. That is true across every industry we play in.

5% of sales in the industries that we compete in, this is a very healthy level for us so we are quite comfortable, it is quite good. Again, we watch the spending as it turns to success in the marketplace. As Dan was showing you, ultimately it is going to fall to our bottom line, so it is that fall through that we watch.

Unidentified Audience Member

Vic, my question for you is what technology are you getting from Alstom that gets you excited, that helps you make some gains in your product lines?

Vic Abate - General Electric Company - VP, PowerGen Products

It is a great question. In the catalog when you look at it, at the very beginning you will see for a combined cycle power system, there is many systems in there. There is what we call the topping cycle which is the gas turbine, the bottoming cycle, heat rejection cycle, electrical conversion cycle and we have always had a leadership position in the gas piece of that. The remainder of the plant matters from a cost perspective and from our customer they don't get revenue until it goes COD.

And so to really grow our business and grow margins, becoming a power plant system design company more so than a gas turbine service company really is how that integration of those two businesses come together. On behalf of customers to drive the cost of electricity of gas combined cycle down, you really need to do the whole thing. You set the odds with the gas turbine and we believe that is the value creation device but all of the stuff that Alstom does and the scale of that coming with what GE does, the rotating equipment and stationary equipment, we think we can move the industry forward and make it more competitive on a cost of electricity perspective.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

I would add on that point too. I think in the services world, we've got a fantastic track record on the gas turbine side. In many of these situations with our customers the rest of that equipment in the plant has actually a larger opportunity or limitation than the gas turbine is. So it can also feed our ability to bring value to customers throughout services.

Unidentified Audience Member



So breaking up companies has been popular in our sector and has had some level of success. Today's presentation seemed -- argued pretty strongly against that I suppose. Maybe for each of the businesses, we heard some of this, but maybe for each of the businesses, how do you think your competitive advantage would be impacted if you couldn't leverage what is available here and you were a standalone entity?

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

So you are asking the business guys this question? Vic, let's start with you.

Vic Abate - General Electric Company - VP, PowerGen Products

I think it is apparent that the connection I think is an advantage for us, the Aviation/Power synergies especially in the gas space are clear. When you look at what is going on in the Power Conversion space, our customers go to market selling electrons and so that is that whole other side of it. So those synergies I think are real important. Without those I think it would be a reset to how we think about it.

Bill Fitzgerald - General Electric Company - VP, Commercial Engines

I would agree with that. I think you saw in our presentation, three of the four technologies that are making our next-generation products sing came from other parts of GE and right here. So I think it would be sizable both on the original equipment performance and as well in terms of what we could do in the aftermarket in terms of capabilities and upgrades.

Rafael Santana - General Electric Company - VP, Turbomachinery Solutions

I would say for Turbomachinery, it has been so powerful that our competitors are trying to follow the same path.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

So just a different spin on the same question. I hope you get some sense that this team is plugged into one another. We all know each other very well, we actually like each other a lot and that makes the connection very significant for us.

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

I have a great example of this that I think kind of shows how things can work together. In the Aviation space, which I spent many years and then in Power and Water and Oil and Gas, inspection technologies are critical, absolutely critical to our ability to improve the product, understand our outcomes in the factories, etc. So much so that we bought a business and when I was in Aviation, we bought a business from Agfa and its focus is inspection technologies for the industrial space. And we have delivered enormous value into our service franchises and into our factories by virtue of being able to develop that technology in the industrial space.

Now GRC working with Healthcare is the fundamental owner of the root of those technologies that we are using in the industrial space. So technologies developed for Healthcare on people, we are applying them in the industrial space on our equipment in the services side of our equipment as well and generating a lot of value. Those connections would not exist at all without the ability to kind of come here and talk about the challenges that we have in our different industry segments and brainstorm the solutions. These solutions these guys will say we know how to do that, we've done it over in -- we can tweak that technology from Healthcare and find a way to inspect a 3D printed nozzle that is not inspectable by current traditional inspection means.

So there are so many examples of how we do this it is hard to even begin to kind of describe them all but it starts with this common kind of heritage of pulling technology from this place.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO



There is a talent side of this too that is not a trivial thing. People like to come to work with us because we are so expansive and we are so interesting. Those of you who are here physically will get to meet a lot of the people who are actually doing the technical work. And I hope you will find them a very engaging and very exciting. We are able to attract talent like this because they see if they can come and work in the breadth of GE.

You go to San Ramon, California, we are in the edge of Silicon Valley and you say why are people coming to work at an old-line industrial company like GE and why don't they going into the cool, sexy startups? And the answer to that is because we actually do stuff that matters, really matters to people's lives, it actually matters to the way the world functions and they want to be a part of that. It is a really important thing.

Anders Wold - General Electric Company - President and CEO, Ultrasound

I will add one thing for Healthcare because the same thing. We couldn't drive stuff coming from the big systems down to pocket-sized ultrasound. We couldn't get the same image quality to the same level without GRC. But I think I will add one more thing, which is we come here to discuss really tough problems to solve. You get a fresh perspective from a different angle than you typically have in your own business. You tried and tried and tried and you get the different one and that is really a huge asset to this one. I think it is very hard to find alternatives to that.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

Do we have another question? Go ahead.

Unidentified Audience Member

Maybe a question for Dan. You had the slide on attacking gross margins and you had sort of three points under that. I am just trying to understand how different is that versus prior kind of GE practices, the extent to which those three points on incentive comp and so on are new and if so when those came in?

Secondly, just for Bill, maybe talk a little bit about how quickly you think the LEAP engine should get to a mature cost stage in light of what we heard today and if you compare it with the GENx or the GP7200 or other kind of legacy engines?

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

So I will focus on gross margins. We certainly have seen significant results from our focus on SG&A. And when I came into this role coming out of the Oil and Gas job, Jeff asked me to zero in on this space and to think about programmatically how we could align our attack on this across the Company similar to the attack on SG&A. And the tools are not all brand new. What I would say is the alignment of the structure down through each business to guarantee that we've got line of sight to all the costs, the ownership alignment to the metrics or to the incentives in the way that we are paid, that is all new. That all changed in this last year so we have got a good framework. We've got a good line of sight to how everyone can play, how everyone's work contributes to this good targets.

And then this kind of ability to learn fast and spread the learnings across the Company I think is -- this is something actually. I worked in the services domain for many, many, many years. We have done a really good job with that moving learning from one part of the company to another through this service council. Jeff said why don't we do the same thing in manufacturing? We set that up and we have got very enthused manufacturing leaders in all parts of the Company now that have carved out these areas that we think we can learn faster together and improve faster together.

Bill Fitzgerald - General Electric Company - VP, Commercial Engines

Just on the LEAP mature cost, we are going to get to the mature cost on LEAP much faster for two fundamental reasons. The focus on costs that I talked about plus fundamentally the volume, the speed with which we start to process that volume does help us. So we probably get to the 250 of costs probably 50% faster fundamentally because of the volume aspect of it. And I think there is an argument to be made that GENx had a bit of a slow start associated with getting to mature costs. But we have reduced the cost of the GENx by almost 50% in the last three or four years. We will hit the mature cost in 2015 on GENx and we are pleased with how it is performing.

Unidentified Audience Member



Could you kind of frame for us -- first of all, thank you very much for buying Morris because you took me out of the wilderness of 15 years of having nobody care about additive manufacturing.

Can you talk a little bit about the metrics that you will use to assess the spread of additive manufacturing across your facilities? And maybe you could start by describing this new facility that you have created to kind of be a center of excellence for it? How will you know in two years or three years if this was a good approach, what the metrics are?

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

First of all, I would say we have learned a lot from Morris, from them coming into the family and some of the early examples of success we have seen in Aviation. And I wouldn't say the traditional metrics around costs are going to be front and center. I would describe it more around this idea that we are changing our design execution, opening up the design space that can bring value into the components of the products, cost competitively when you look at the trade-offs between cost and value created and machine in the end performance.

So in Aviation for instance, we have really very good ways to trade off weight versus cost versus product performance and this additive is very similar to that. Some of our early examples, the fuel nozzle reducing 30 parts to 1 part has got some cost advantages but it really is a performance changer in the way that the part functions in the machine.

Now that example kind of opened up some other parts of the company to start thinking that way and I believe to just kind of bring the Pittsburgh facility we are starting up, I believe that we are trying to set up an environment where we can number one, provide the equipment in a space where more people can learn and we can learn faster together. Number two, where engineers could be kind of exposed to this idea that they have to really step out of their historical biases around how we design and produce things to think about the way that designs can be changed radically to bring performance.

The center that we are creating in Pittsburgh is going to be a place where we can learn faster by virtue of being together, where we can develop materials because materials is a critical piece of this as you know. We will have equipment for them to do some of their prototyping and I think this is not for production by the way. This is going to be for let's say that early product development when we get into production, we create a factory and we scale up. So I think additive is kind of in its infancy in terms of the way it is going to bring value to our products.

It is also in its infancy in the way that the process is being developed for true production kind of hardware and we are trying to set up an environment where we can just move this much quicker throughout the Company.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

I just want to build on this just a little bit and probably move to a different subject. But you know Morris, maybe everyone else does not. So the way we got to Morris is Christine's group was developing additive manufacturing technologies here at the research center. We do things that are high-end materials, metals and ceramics; many other folks do plastic kind of materials. We are interested in the high-end stuff.

We have an excellent capability which those of you who are here will visit today, you will get to see what we are doing. We have a lot of capability but not capacity. We bought Morris which is a 3D printing company. We view them as best in class to give us a lot of capacity to really energize our go-forward process. The Aviation guys have them filled up already that is why Dan is still an out to another facility. But we are driving this across the Company fast. The Power and Water guys have bought tools to enable their engineers to play with it. If you go to Industrial Solutions in Plainville, they are reinventing their whole circuit breaker line. They are using it to do very fast prototyping. It is all about speed to market so this thing is really taking hold.

Unidentified Audience Member

I had a question for Dan. Back on the gross margins, you mentioned that the mix was a headwind in the last few years and you have got a nice improvement here anticipated for this year. And I was curious how much of that you thought was incentives really taking hold versus the change in the mix particularly as you begin to lift and accelerate to growth on the data analytics which is a pretty rich part of the service mix.

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations



So they all play, obviously. I think mix is going to be less of a headwind this year going forward and part of the reason is because we are improving our margins on some of the lower margin products. That helps. The services product mix also helps so you could kind of spend a lot of time boiling it down to the exact three decimal point contributions but I believe that -- I know we will see less mix headwind as the margins improve on some of our lower margin products that we are targeting here.

We are not just targeting the low margin products. We are targeting services in really all parts of the Company. The incentives being aligned is very powerful because on the mature products for manufacturing to get cost out, engineering needs to play. Engineering is very -- their prime objective maybe you would say is new products today but having their incentives aligned, they are supporting, very well, the cost out objectives on the older products as well.

This has eliminated a lot of let's say organizational confusion over what people should work on. If what you are working on is not aligned directly with one of those Xs, you shouldn't be doing it.

Unidentified Audience Member

When do you think gross margins will be at a new record for you?

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

A new record? I don't know. My objective is to kind of keep it improving and the marketplace is going to have something to say as well. We have to keep competing as we try to grow the franchise and be successful with the products. I know if we can drive costs out, we will have a better hand to play. We can deliver better margins and we can also play aggressively in the marketplace to grow share and volume and the rest. So it is all good.

As we work on these gross margins, it is going to drive good outcomes all over the business including for shareholders and I don't know when we will hit a record and I can't answer that.

Unidentified Audience Member

Do you think that your contribution to improving GE's operating margin will basically begin to accelerate since a lot of that heavy lifting has been carried by simplification and taking out kind of structural and overhead costs?

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

I think that this programmatic approach that I am describing it as is going to be faster in its uptake because of the success that we have had programmatically taking on SG&A. And so in other words, we have all learned how to behave better in pursuit of the bigger goal. I think as we set this gross margin's attack up, everyone is playing.

Unidentified Audience Member

Thanks to everybody for great information. I think some takeaways obviously you guys make and sell a lot of great high-value stuff. You have a lot of really smart people that work well together and you guys are some of the best in the world at measuring things. And to the question earlier about breaking up parts of the company, how do you think about quantifying the synergies between all these various groups? I mean I look at the Ultrasound presentation, it was just amazing to the baby's face. It was awesome. But how do you really think about that internally and Dan, maybe specifically for you, when you are really looking at these businesses, how do you quantify that? Any color you could give would be great.

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

Well, I mean obviously the numbers are the business metrics and how much are we growing, how profitably are we growing, what is our share? Those are all ways to kind of gauge the success of the Company by external metric or met benchmarks. Internally I think the synergies that we bring to bear, it is really kind of hard to quantify them specifically but I do know that the LEAP engine would not be as successful a launch without the contributions of some of the technologies that are in there.



Same for the H machine. Every part of the Company has benefited from getting access to things that they maybe couldn't have done on their own or wouldn't have done on their own.

So personally I kind of look at the overall product success. The uptake and the share and is it delivering the kind of value for customers and shareholders? That is in my view the right way to look at it.

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

This may not be the answer you are looking for but it is how I look at it. Okay? I ask myself with all the work that we do, do we have the best Aviation business in the world? Yes. Do we have the best locomotive business in the world? Yes. Do we have the best heavy duty gas turbine business in the world? Yes. Best wind business? Yes, yes, yes, yes, yes.

Then as we look at buying businesses, and the Oil and Gas space is a pretty good example of this. Time will tell if we are right or not but the theory is that we can buy businesses that may not be best in class. We can bring them into the GE Store and we can make them best in class. I believe we will but we will see.

Unidentified Audience Member

Mark, are you measuring and scoring across discipline R&D? And if so, it almost sounds like it is already there but I'm just curious sort of what more is there to do or how do you drive that?

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

So maybe not a satisfying answer so we don't score it but we actually put a lot of pressure on the various segments so Vic and Bill are quite comparable. So where I sit and Dan sits in the same kind of (inaudible), we can look at what they are doing over here and see if they are doing it over there and we give encouragement in a very strong way if we see that they need to do something different. Vic has been a tremendous leader and you may see the difference in our gas turbine business since he has been there. He has done a lot of great stuff.

So part of my role and part of Dan's role is to make sure we are putting pressure across. So I don't have a scoring system for that but we watch very carefully what is going on and part of my job is to put pressure where it needs to be put.

Unidentified Audience Member

(multiple speakers) Are they regularly scheduled for instance meeting collaborations between communication and (inaudible)? I assume there would be, right?

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

Yes, so a couple of things I would really like for you guys to know. The business teams come here regularly, very regularly, a very intensive meeting, Bill's nodding his head. Bill comes with David Joyce here probably four times a year. It is not just the technical guys, it is the business guys like Bill, it calling out the manufacturing team, they all come together and we think about what is going on for their future. So we have those kind of things.

John Flannery will be in this room with the Healthcare guys tomorrow talking about a couple of their segments and on and on it goes. So we do that.

Then there is a set of things we call synergy teams. Michael Idelchik, if you haven't met Michael you should. He is probably the broadest and deepest technologist in the Company. He runs a series of what we call synergy teams that are very active teams that actually pool funding to do basic things that work to the advantage of all the businesses. There is one in repair technologies, one in combustion, there is one in engineering tools and on and on, a set of those things really significantly funded activity. The business people get together and they work on what is important to them and they share the stuff very, very regularly in a very intense way.

Unidentified Audience Member



And then where is GE at with respect to the penetration of the Brilliant Factory? Because in theory, right, there is going to be a cost of implementation but there is going to be an associated benefit. It is almost trying to draw a line into the future. If we were fully 400 factories were Brilliant Factories, what would that actually cost to get there, how long would it take and what kind of incremental benefit productivity or margin or however you want to measure it?

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

Here is the way that I think about it. Christine and I spend a lot of time on this but first of all, not every factory is going to be a Brilliant Factory. Because there is an investment in return mentality that has to go into this. There are some factories that are going to be on the leading edge because of what work -- the virtue of what they are making and we need like our CMC factory for Aviation, this is going to have to be really, really leading edge in almost every way.

But what we are doing as a group, we are starting by defining let's say use cases and this is a play right out of the services world. We say what is the problem you are trying to solve Mr. Customer? What is it that will make your outcome, your business result better. So we have this conversation with our manufacturing and engineering teams and we bring the tools to bear. We say okay, we can work on that problem this way.

So what we have done is we have kind of lined up a number of pilots that we are working in Grove City and Greenville and Wilmington and many of our factories. We are kind of working with them to deliver an outcome. So the number one, what did it cost us to do it?

Number two, what was the outcome you were seeking? And what was the result of the work that we are doing so that when we are done we have a very -- when we have demonstrated an outcome, we have a way to talk to the other businesses about that opportunity and whether or not it makes sense for them. They could not invest on everything all at once. It would just not -- first of all, it would be overwhelming and secondly it would cost too much.

So what we are trying to do is develop these solutions or outcomes and then having everyone play and the idea that you can improve and then find a way to transition them from one business to another as that opportunity has a cost benefit payoff.

I would say we are like -- personally and maybe I am a little hard grader but I think we are probably 5% of what we ultimately could do. What we could do, the future. It is not like is a static finish line either because Moore's Law is behind us a lot of this as technology enables data to play in a different way we have to embrace that in terms of how we can make our own operations better.

So it is always going to be an opportunity to make things better and what we have to do is -- what we are working to do is harness that in our own operations just like we have been doing for our customers on the service side. Did you want to say something, Christine?

Christine Furstoss - General Electric Company - Director, Manufacturing & Materials Technology

I would just like to add that I think this concept of a business model we are adopting with the app store. Because I think it is very, very important, Brilliant Factory is a mindset that we can say we want to digitize, we want to improve productivity. But to the point Dan made and to your question, it is not the same everywhere. We have different products, different needs and so by building this toolkit or apps as I call them to say do you need scheduling help or throughput help or quality issues on machining and being able to go into each factory and put the right set of apps together is going to make us right size, it is going to make us faster and it is going to make us able to invest the right amount in every factory, every business.

There is not one blueprint for the Brilliant Factory. Again, it is that mindset, it is that commitment to digitizing and getting better. So as far as we are on the journey, we are building the apps. And as Dan said, we go in, we test the app in one type of factory and then understand the return on investment, the training that may be needed and then can spread it quickly.

Unidentified Company Representative

What type of factory would need the least amount of help? (inaudible)

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

A factory that would need the least amount of help? I mean, some of our more advanced factories probably need the least amount of help because they are introducing a lot of these concepts right from beginning. So the newer factories where we are building something from scratch we have the ability to kind of build a lot of this in



from the start. But you go to a Greenville, it has been around for a long time making critical products for us. We are finding new approaches in that hugely important factory regularly that can bring us forward.

Just a simple concept. When we go to customers, we talk about unplanned downtime in the services world and they can immediately identify with less downtime and how it will drive revenue for them. And we worked on lots of things that can improve that. That same concept works in our own factories. If we have a bottleneck in a factory and we can derive more capacity through that bottleneck by working on planned downtime, I would have to buy less equipment, I can get more output or throughput. It is like free capacity. It is a pretty simple concept but the solutions to actually deliver that are not as simple.

What we have to do is start with what is the problem that we are trying to solve, not trying to push solutions everywhere that don't necessarily have the payback.

Unidentified Audience Member

Thank you. Just wanted to come back around maybe to a business model question in a different sense. Regardless of what your product margins are, better margins, higher margins would be better, right? So kind of the essence of my question is, is the product improvement push also a little bit of a must-have as opposed to a nice to have that as customers are more and more intensely focused on lifecycle costs and you are trying to make things last longer, are you perhaps over earning in service because of the way the business model worked historically? Is there some fundamental change in the business model itself and what customers are looking for from you and then that is playing into really this calculus that you are doing on how you solve to an acceptable margin rate for yourself and for investors?

Mark Little - General Electric Company - SVP, Director of GE Global Research and CTO

I don't see a fundamental shift in anything. We are trying to make winning products with the idea that will create competitive advantage and set up an installed base to drive service, nothing fundamental has changed in that model. I would tell you that the whole idea of the Industrial Internet and big data ideas that we have allows us to expand on that. It is an additional opportunity, it is not a shifting of margins from one place to another, it is a way for us to create more value for our customer and for our shareholders at the same time.

So I am not sure where you are going but I don't see a big shift in anything really right now.

Unidentified Audience Member

That's helpful. I'm just wondering also just as matter of point of reference what percent of your product businesses are below breakeven or are any below breakeven at this juncture? The whole fleet is running at 4% or 5% I would imagine there is a chunk that actually loses money out the door.

Dan Heintzelman - General Electric Company - VP, Enterprise Risk & Operations

I can't answer what percentage and I do know that we don't like not making money. So we have a very keen focus on everything that is below expectation getting it up to where it needs to be. And I'd like to kind of build on one maybe element of your prior question. I think what has changed with respect to customers and our products is that the lifecycle is a lot more -- the way that that product can be a piece of their earning equation is changed. And this idea that we make products perform better than the day they shipped is -- we could demonstrate it more and it has got a lot more popularity with customers so our ability to kind of bring the product side and the services side and now the manufacturing side, manufacturing and engineering side all into more of -- through product management by the way -- into more of a full strategy for how we can be successful over a long period of time with our products, I think that dialogue has evolved a lot in the Company. As we grew our services franchises, one is not successful without the other anymore.

And I would say where customers are at the center of that, they are helping us to understand what success looks like and I think the product guys and these services guys are doing a great job making sure that we are driving our strategies in that direction.

Unidentified Audience Member

Just a question for Tina actually as the longest tenured person potentially who spoke today. So there has been discussion about this change in the incentive compensation system. As somebody who has possibly seen many incentive compensation systems over the years, how is this being received, how big a deal is it? And



really I mean clearly you guys were always trying as hard as you could. What actual impact do you think these new metrics are going to have on people who already were doing a good job?

Tina Donikowski - *General Electric Company - VP, Global Locomotive Operations*

Thank you for that and you neglected to add how could I possibly have that many year's service but I will forgive you for that. So that is okay. (multiple speakers)

Strangely enough, we had one compensation program for a very, very long time in the Company. We didn't change it frequently so this is a rather big change for us now. And the impact it is having we know from working in teams just like our Tier 4 core team that the best output comes from a singular purpose, everybody pulling in the same direction. Any kind of sub optimization of metrics just don't work and that is what this incentive plan does. Everyone pulls in the same direction.

Your success is linked and I think what you are starting to see, it is having an impact. I don't worry about my metric at the expense of yours, I only worry about the mission being accomplished. So I think it is really having great impact and it is changing behaviors. It doesn't matter if it is right for the supply chain or right for this one or engineering needs to do something else, let's all do it; we have to get it done.

Mark Little - *General Electric Company - SVP, Director of GE Global Research and CTO*

Thanks to all of you for being with us, those of you who were here physically and those of you who were online. At this point we are going to end our broadcast and turn to some activities we have here in Niskayuna. Thank you very much to all on the call.

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