

Company Name: MTS Systems Corporation (MTSC)
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<<Unidentified Analyst>>

Would like to welcome MTS Systems Corporation to the conference today. MTS is a leading global provider of testing and sensor solutions to a broad array of industries that are benefiting from growing investment in R&D spending around the world. And MTS is an interesting company and that is one of a few pure play companies serving attractive market.

From MTS we have Jeff Graves, the CEO; and Brian Ross, the CFO. So with that, I'll hand it over to you, Jeff. Thank you.

<<Jeffrey A. Graves, President and Chief Executive Officer>>

Great. Thanks, Joel. Thanks for the invitation and thank you all for attending today. I will move through these charts fairly quickly. We do have soft copies now out at the website and a few hard copies around. But let me just start with the highest level and then I'll talk about each of our operating businesses.

As Joel mentioned, we are a test and measurement company. So depending on your definition we fit somewhere between the industrial space and technology space. Our equipment and our sensor is basically go into the testing environment for testing new products, like cars, planes, trains and everything that goes into them, or industrial automation, so sensors for industrial automation products or again testing of products. So I'll talk about each of those in a moment.

We are roughly an \$800 million company, round numbers in terms of revenue. Very nicely globally distributed, I'll talk about that in a few moments. And this is FY 2016 data. Actually we're into the September fiscal year, so we'll be announcing earnings here in a couple of weeks for our fiscal 2017 that we just closed; so back in 2016, just under \$800 million in revenue and \$123 million in EBITDA performance. Our revenue is split roughly 65/35 between Test and Sensors. EBITDA is split virtually equally between the two businesses with Sensors being a slightly more profitable business.

Again, our test and measurement solutions go into the testing of new products around the world. We are not tied to factory capacity utilization in any of the industries we play in. We are tied to how much our customers are spending on R&D and CapEx around that R&D, okay? So that could be the testing of new products. Industrial automation is the launch of new highly automated factory production equipment.

So our products basically are desired because they're technology-leading and they help our customers get to market faster. So if you look at for example automotive

development cycle times have gone in the old days from seven years between a major rework of an automotive platform to three years. They're trying to shave another year off in order to launch electric vehicles and autonomy vehicles.

Our equipment is instrumental to that in terms of testing the durability or aerodynamic performance or safety related feature of a car or an airplane for example. So we're on the critical path to a customer and OEM getting a product launched in the world if you will. We're tightening our way to their R&D spend. So our products help make the world safer, better, cleaner through the launch of new products or a more effective factory equipment.

For a smallish company, \$800 million in revenue, I'm very proud of our geographic footprint and the customers we support around the world. If you look at our revenue split today we're just over 30% out of the Americas if you will, most of which is the United States, about 25% out of Europe, and over 40% out of Asia, and half of that Asia number is China, okay? We do a robust business in China and it's driven by the amount of R&D money the Chinese are spending in the automotive sector, in the aerospace sector, and in their primary materials sectors in order to ramp up their economy. So we're tied very heavily to their R&D spend. China is a very robust market for us, one we're very excited about.

In terms of our operating segments, we basically divide business as we describe between Test, and what we mean by measurement is Sensors, okay? Industrial sensing. So in the Test markets we serve ground vehicles. In that whole supply chain roughly 50% of our Test revenue comes out of that sector; so OEMs and their suppliers, and again, it's how much R&D money they're spending to develop their new products and getting them to market.

About 23% of our sales in the Test business is related to new materials testing. So again, it's an equipment for testing new composite materials, new metal alloys, car proliferation carbon fiber composites for example, big driver of our materials testing business around the world. And we also make very large machines for testing the structure – infrastructure, for example, new building designs, new bridge designs, for earthquake resistance, for higher density populations, for economy and environmental improvements. We test the structural integrity of those – of that infrastructure around the world; very robust business particularly in the earthquake prone, tsunami prone zones in China, Indonesia, Japan and elsewhere, but a nice global business.

Increasingly we're involved in the servicing of our equipments around the world. We have – in our 50-year history as a company we've sold about \$6 billion worth of equipment and about \$4.5 billion of that is still running today. So it has a very long life to it, a very long life of breaking our customers' products or their new products. So obviously there's a big service component to keeping that equipment running, keeping it calibrated, providing spare parts and increasingly providing software upgrades. So it's a large and growing business for us today, it's taking care of our customers – our equipment at our customer sites.

From a Sensor segment perspective, much of our sensors go into industrial automation. So our historic Sensor business is involved in sensors to measure the position of things like robotic arms or the steering mechanism on heavy earth moving equipment; Caterpillar, John Deere tractors, things like this; sensors that determine the position of the wheels, the arms on robots, the cutting tools for industrial metal cutting or wood cutting products.

The Position Sensor business is our historic business. We did an acquisition last year with a company called PCB, headquartered out of Buffalo, New York, which greatly expanded our Sensor business. It moved us into the sensors that are involved in the testing of our customers' new products for the Test business. So these are sensors that go on to cars or on to airplanes as they're being tested by our test equipment.

And the industrial sensors for the measurement of vibration or acceleration of industrial products, robotics, cutting equipment, again, metal moving equipment things like this. And increasingly those sensors are incorporated into the systems, in our case for measuring sound. For example, we're very good with vibration sensors and you can extend that technology now to industrial microphones for measuring the sound in a new car or sound in an airplane or the sound emitted by these products on operation. So again targeted the new product launch.

Drilling down a little bit into the financials, again, Test has been a relatively stable business and one that's very robust economic cycles in the world in terms of capacity utilization. Again, this is funded out of R&D. It's been a roughly \$500 million business, you see an uptick in revenues in 2016. And we expect with continued R&D spend in the world for that to continue to grow over time. It's roughly a 15% EBITDA type of business. Lovely business in terms of CapEx, it requires very little CapEx frankly for sustaining organic growth. Most of all what we do is design similar testing equipment so we don't bend metal, we don't do a lot of that, but it involves a lot of CapEx. So we spend about 2% to 3% of sales on capital from the cash that we generate in that business.

Sensors, again, a smaller business. This is on a trailing basis. We completed our acquisition in 2016 and you'll see this begin ramping up down in 2017. It's about a \$300 million business today, our Sensor business doing in the low 20% EBITDA range and again a very low CapEx business around the world.

In terms of the industries we serve, what I like – one of the things I like best about our company is R&D spend in the world by OEMs and government laboratories, very, very stable revenue stream in generally growing in the world. Part of it is the emergence of China and India as economic powers and the amount of money they spend on R&D in the world. Part of it is what the Western world's been keeping up with them; so the United States, Western Europe.

So if you look back over the last 10 years, this is a plot of our estimates of R&D spend in the world, you can see a little blip down in the late 2000s related to the recession that was

primarily the automotive – the American automotive companies, the Germans, the Japanese, the Koreans, and Chinese continue their spending plans as planned, Americans come back a bit; but a small blip and a fairly rapid recovery and a nice trend. Overall it's growing about 5-plus percent in the world today. Again, this is what we go after for revenue for our company.

In terms of the Sensor business, a very large highly fragmented marketplace and growing about 8% a year. So the markets we serve today are about \$30 billion in size, so plenty of growth opportunity for a \$300 million business. They're growing about 8% a year, so you project out it would be about \$40 billion by 2022. So clearly a lot of room for growth there and that's reflected in our organic growth rates as we move forward.

Last year, major acquisition, we're not a highly acquisitive company, we've generally had a very strong balance sheet and we're very proud of the dividend we paid for 40 years and we participate in share buybacks periodically. Last year we made a strategic decision to grow in our Sensor business and we acquired a company called PCB, again, headquartered out of Buffalo, New York; a highly vertically integrated sensor manufacturer that produces vibration and acceleration sensors.

So these sensors in the test environment would go on cars and planes and trains to measure the vibration or movement of the car during a test in the R&D lab or they would go into industrial automation. So they would control or measure the performance of an industrial metal cutting, wood cutting, moving object in a plant and related applications for maintenance and preventive maintenance activities. So things like large bearings and measuring vibration and we're out of large bearings in steel plants, in aluminum plants, things like this in order to stay ahead of the maintenance curve for those customers.

It's a very complimentary business towards us. Part of the reason that we did this acquisition was it not only brought us a much broader portfolio of sensing products, there was a very nice synergy from a customer standpoint in terms of the Test market that we serve for 50 years. So we can take PCB now into labs for example in China for the emerging automotive OEMs and aircraft OEMs to help them grow in those markets that they're under-served.

The Sensor markets in the world are growing very fast for us right now and you see it all around you in terms of smart devices, everything from handheld devices to industrial products. We focus on industrial applications. We're not in automotive sensing, so we don't have sensors on cars, we don't have sensors on consumer products; we focus heavily on industrial automation through sensing, okay? We focus on the sensors themselves.

As I mentioned another growth aspect for our company is growing the services for our installed base. We really started going after this aggressively five years ago. It's now become \$100 million business for us and that's servicing our own test equipment that's out there running. So in addition to keeping the equipment running and upgrading it periodically, we can now not only do that but we can provide the sensors needed for the

test and we can calibrate those sensors moving forward. So we're more of a holistic provider to the R&D world if you will for new product development at OEMs or universities around the world.

And most of the demand for our products are driven by new products being launched in the world and you can imagine what those products are doing. They're providing new cars for the emerging markets in different price points but they're also heavily focused on new cars and planes and trains for lower emissions and lower fuel burns in the world. So the regulatory environment even though it's a bit changing in terms of the political direction these days, still very, very severe in terms of increasing fuel efficiency standards, the move away from combustion engines toward electric vehicles is a manifestation of the economic impact of cars. And for those of you travel often to Shanghai or Beijing or elsewhere you see what a car does to the environment in terms of pollution big, big push for electric vehicles, low polluting vehicles, which all drives the use of our testing equipment and increasingly our sensors and the testing of those new products.

So looking forward, our Sensor Business or combined Sensor Business now we believe is going to grow at – on average at double digit rates every year organically with the proliferation of sensors in the industrial environment and in testing. So we believe that market on its own will grow for us, our business will grow about 10% a year. Our EBITDA margins today as I mentioned, they are in the low 20%, we expect some lift due to volume efficiencies and other supply chain efficiencies as we grow. So you'll see EBITDA margins in the Sensor Business moving from 21% up to the mid 20% over the next five years.

So a nice growth in terms of that market growth and some share gain. The services business for us is a business that our customers want us to be in. They want us to take over the servicing of our own equipment that's installed there. So we see that growing near double digits as well. And it has about a 5 point better margin than our equipment business does historically. So that will again provide a lift in terms of top and bottom line. And then there's just the overall need for testing equipment in the world in China, India and elsewhere as they launch new products.

In terms of margin expansion the very simply the bigger the contribution we can make from our Sensor Business, the higher company margins go. That business will be growing at almost twice the rate of our Test Business and it carries with that – again 20%-plus EBITDA margin. So we'll get a business mix look from that, we'll get a business mix look from our service business, which is growing near double digits today and doing about 5 points better than the equipment business for us.

In addition the equipment business is the foundation of our Test Business and we continue to invest heavily in that for staying ahead of the technology curve, which is how we go-to-market each year. We have some supply chain efficiency programs. Very nice supply chain efficiencies, which are relatively new focus for us in the last five years. Just

working more closely with our suppliers to get our cost down as we grow volumes and we try to standardize our products.

So in terms of revenue and EBITDA projection, what I'm showing here in the light colored bars as you move from top to bottom and left to right revenue we expect to see a nice uptick this year part of that is the acquisition we did last year, that's the light blue bar. We have completed our fiscal year, we announce earnings here in a couple of weeks but this is the guidance range we provided up through the end of our second quarter. So you can see that the range on that we're approaching \$800 million down revenue from an overall company perspective. Adjusted EBITDA of about 15% and again sensors and services grow we expect some uplift in future years on that. Earnings were dilutive, we issued some stock in order to complete our acquisition and we lever the balance sheet to some extent. So we would expect that to begin reversing itself here in short order.

We're very proud of our ROIC performance. In fact as a company we tire a long-term compensation ROIC. We've always been the top cortile and near the top end of the top cortile on ROIC for many, many years then it dropped with the acquisition we completed last year. But our goal is to get that back to 15% and above as quickly as possible in the next few years to stay in that top cortile test and measurement companies. We do generate strong operating cash flow, which gives us nice flexibility because we consume very little of that for CapEx to support our organic growth that gives us flexibility not only support our dividend but they are pared down over time.

2017 is – we've obviously shown a nice lift in revenue and EBITDA, GAAP EPS included a lot of restructuring charges. So there's a lot of moving parts in the GAAP number for EPS, which is explained in our Q's and our K coming up. So you can see the adjustments made there. In terms of capital allocation priorities, and again, we generate a lot of cash. So right now when we closed our deal last year with PCB we were levered over 4 times as we came through Q3, we're down about 3.5 times today with the operating cash flow we'll generate in the next couple of years that will be back in the 2 times to 2.5 times range. It's an important priority for us.

We are investing for organic growth in the businesses again not a big consumption of cash but it's an important one to us. And we take great pride in our dividend we paid out for over 40 years, today we yield about 2.3% of the stock. So you get a little bit of cash for holding the stock as well. Historically, we periodically done share buybacks, we'll be back in that consideration again once our leverage is down into that 2 to 2.5 range over time.

So in short we love the business that we're in and we've been in for 50 years. People talk about the importance of customer intimacy. Our industry in general has two large various entry one is technical. It's extremely technical highly engineered product industry. From a customer standpoint with an engineer-to-engineer sale, so a lot of people talk about customer relationships the importance of those. Ours is based on a technology exchange with customers that's critically important.

So people like General Motors, Ford, Daimler, BMW, Toyota, Nissan, Honda we've been doing business with these folks for 40 years in their new product development labs. We know the tools they used for designing cars, the same thing about Boeing and Airbus and the other aircraft manufacturers. We know the tool they use, we know their engineers, we know their approaches all of which are different provides a big variance to new people entering the field. In my time at MTS the last several years, there are no new entries into this field from a competitive standpoint. It's a very difficult business and relatively low volume business in the big scheme of things for people, so just not the return on the investment to get into the business if you're not already in it.

So we really value that, we intend to reinvest heavily in our technology in our customer relationships and increasingly our service organization to stay intimate with our customers. Our markets are growing they are fueled by R&D spend in the world. The emerging market is an increasing part of that R&D spend, which we're really excited about. We have a great presence there and we expect that to grow. So we're excited about our geographic footprint, we're excited that our revenue comes out of R&D spending and industrial automation, which we view as a macro trend that's in its very earliest days in the United States and Western Europe and elsewhere. And we're excited to be a core part of that.

So no need to really get into different markets frankly, we like the growth opportunity in our markets organically. And we plan on launching new products and continue to grow their preferentially. So we're very confident about our future, we look forward to the next several years. We anticipate, we get a lot of questions these days about what inning we're in, in terms of the economy and all of this. In terms of R&D spend for new planes, trains and automobiles and industrial automation. We still view that as early days of evolution. No matter how many cars are produced in the world the proliferation of new product types and new materials that will fuel those types is going gangbusters.

The opportunity pipeline we track for our Test Business has been and that's a 12 month pipeline if we look at through our serum system is at \$1 billion and it has been there for the last couple of years and we expect that to be retain and grow over time. So we're chasing a lot of good business around the world and with customers that we know very well. So we're excited about the future.

So with that Joel, I'll wrap up and we have time for questions.

<<Unidentified Analyst>>

Yes, we have a few minutes for questions. Any question from the audience?

<<Jeffrey A. Graves, President and Chief Executive Officer>>

You'll see in the appendix to the presentation, a slice through every market that we serve, the competitive landscape, the market share position is all in the back by market. It does tend to vary by market. So I won't post on any one of these particularly. But for those

interested in the different markets that we serve around the world you can see the competitive landscape, the market share and the growth projections that we have.

<<Unidentified Analyst>>

Jeff one question that I had for you. You talked a lot about investing in technology. How much of the investments going into software because that's obviously a big differentiator for your auto business.

<<Jeffrey A. Graves, President and Chief Executive Officer>>

So, we talk about testing equipment and even on the sensor side of it, we talk about – we tend to talk about equipment but a large and differentiated component equipment-as-a-software that controls it. So we sell turkey systems that have embedded software for controlling the motion of the test machines. And if you want to get a sense for the scale you can go on YouTube and pull up MTS and automotive testing or aircraft testing. Aircraft testing particularly very dramatic, we bend the wings on airplanes until they break-off.

For those of you who flew to town for the meeting have no fear. These wings take enormous stress to break-off not going to happen. So we build machines that controlling that force and motion as precisely as we need to which is within basically the diameter of a human hair is extremely challenging from a software standpoint. So a lot of R&D investment is directed toward software very hard to replicate to competitors. And very important to our customers the controller machine and the collection of the data from the machine very, very critical to our customers. Great question Joel. Yes.

Q&A

<Q>: [Question Inaudible]

<A – Jeffrey A. Graves>: Yes, it's very interesting. It's almost an extension of Joel's question around software. For those of you who couldn't here, the question is around data collection. So our customers and we're very clear with customers they own the data from their test article. So if they're testing a new car they own that data. But how you pipe the data to him, how you get it to him, how you present it to him is a different. So we're investing increasingly in how that data is collected and presented.

Because customers, I mean, by education they don't generally want to hire a lot more engineers, right. They want more productivity from their engineering workforce and they want to connect that workforce around the world. So if you're General Motors or your BMW you want to have labs around the world that are connected and that engineers can look at very efficiently. So how you pipe the data to them, how you present it to give their decision making – ramp it up more quickly very, very important. So we're investing heavily in not only the control the machine but software to collect the data and present it in a more useful format. I view that as a real differentiator going forward, it is very

valuable. Thanks for the question. Maybe time for one more. Someone else over here had a question, I thought.

<<Unidentified Analyst>>

Okay. I think we're out of time.

<<Jeffrey A. Graves, President and Chief Executive Officer>>

Okay.

<<Unidentified Analyst>>

So thanks Jeff and Brian. Appreciate it.

<<Jeffrey A. Graves, President and Chief Executive Officer>>

Thank you very much guys.