Company Name: MTS Systems Corporation (MTSC)

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<< Matt Krueger, Analyst, Robert W. Baird & Co.>>

All right. Great. I think we can kick things off. For those of you that don't know me, my name is Matt Krueger. I work on the Packaging & Coatings team here at Baird. And it's my pleasure to welcome MTS Systems Corp. From the company, we have CEO Jeff Graves, has been CEO since 2012. And Brian Ross, CFO since 2017 with the Company, 2017 correct. Great.

With that, I'll let you kick it off. Thanks.

<< Jeff Graves, Chief Executive Officer>>

Thanks Matt. Well, thank you all for coming in, especially here before lunch. So, I've got a brief presentation. I'll hit a few high spots and then leave some time for Q&A as well. But it's a pleasure to be here and I appreciate the turnout.

MTS is – I'm very proud to say been around for half a century. We've carved a niche and broadly in the test and measurement space, which is a space that sits between industrial companies and technology companies. So, we characterize as one or the other or both by people. But we certainly service industrial firms in there and predominantly in their R&D labs, selling equipment into the R&D labs for testing and then sensing the data from those tests.

But we are very much a technology driven company, a technology leader in our space. Every company has a list of values, I would point – I always lead with this now and I would point to two that are essential to our business. Every company has strengths in the market, especially if it's been around over 50 years.

Ours is innovation. We tend to be the innovation leader in our space and we try to get paid properly for that innovation and selling into laboratory environments where you're — they are doing critical testing. An absolutely essential thing is that the product's reliable, dependable, and always there on time. So with our two values that we put at the very highest of the business pyramid is innovation and total customer satisfaction, which means on time delivery and quality reliability. Because from a customer perspective, the worst thing that can happen when you're testing a new airplane or a new car or a new train is for the test to fail.

Okay. Not the product, but the test. You want data off the product, the test can't fail. So for 50 years we've built a track record in every one of the major market sectors that we serve to the leading OEMs in that space. We do a lot of business with Universities that conduct basic research. We build testing machines, we service those machines and we tell sell sensors for doing the test itself.

But we also service the, all the major OEMs in the sectors that we serve. So in automotive would be all the major car companies, in the truck and bus industry all of the major truck and bus companies, construction firms in the structural business. And of course all the basic materials, industries, steel, aluminum and others that make materials that have to tested and evaluated for application.

We have generally in our 50-year history, been a company focused on organic growth. We still highly value organic growth, have some nice growth opportunities. We are a bit more acquisitive since 2016 than we were prior to that time. And that's because we have, we established and had two nice platform businesses that I'll talk about that we can bolt things onto.

So, fundamentally we're in the test and measurement space. We operate with two business units. One is called test and simulation and that was our founding business back over 50 years ago. And that's machines to do testing of new products. And our specialty is really durability or fatigue testing as it's called by scientific types. And that's really how real world products fail, whether it's an artificial knee in your body or it's a car or an airplane. Most often they fail by fatigue virtually all the time they fail by fatigue. Okay.

So we build the best machines in the world for testing the fatigue or durability resistance of a product. And now increasingly we sell sensors that are used in conducting that test, okay, that are on the planes or on the trains or cars. Within those two business sectors we talk about various markets that we focus on. So, in the test and simulation business, we talk about ground vehicles, which are literally anything that rolls along the ground.

So automobiles, trucks, buses, trains, all of that. If it — as it's undergoing development and needs to be tested in a lab, that's the machinery we build. Why do they test in a lab? Because it's faster and more reliable than testing on roads or rails. So, we can simulate a 200,000 mile life of an automobile in one month in the laboratory and you can push a button and test any road condition that you'd like to test in the lab. So we condense that cycle-time down to one month, which has been integral to the automotive industry, for example, launching new products in a few years rather than in a decade.

So, we allow that testing to be brought into the lab. And that's a real theme with us as we build machines that allow faster, more reliable testing. And we do that with leading edge technologies that offer the most value to the customer. Okay. And that's why we can command a premium price in the market for doing it. Ground vehicles historically has been about half of the test in simulation business.

We are by design shrinking that percentage over time because it tends to be perceived as a more cyclic business. Now in reality it's a very minor cyclicality to that business for us because R&D spending in the ground vehicle business never stops. In general it continues unabated all the time. It can be emphasized differently by different folks, but it's our revenue stream is the R&D spend of the OEMs, okay, or the university labs.

Materials is a historic sector for us, very strong sector. That's the machines that test advanced materials. In the old days it was simple aluminums and steals. Now it's everything from carbon fiber composites to components made with additive manufacturing, both of which are strong growth drivers in that business. And there's a broad category called structures, which is an exciting part of our test and simulation business and that's literally the testing of energy products.

So it can be wind turbines for renewable energy. It can be oil and gas pipelines or drill bits, things that are involved in the exploration, transportation of energy. Increasingly renewables, is an exciting growth area in that piece of the market for us. It's also the testing of buildings and bridges for earthquake resistance and tsunami resistance, high impact or shipping type failures. We build massive machines for testing for simulating those environments, so people can build safer, more reliable structures.

So, I'll give you the breakdown between the two business units, but tests and simulation I just described from a sensor standpoint, it's a large and rapidly growing business for us. One that we love dearly, they are broadly classified as industrial sensors. We are not in consumer products, we are not in automobiles, we are in industrial applications. It can be for industrial automation purposes to making intelligent equipment in factories. It can also be equally important in the testing business for testing new products.

So, putting sensors on new cars, new planes, new trains, both very exciting pieces of the market for us. We measure position, our sensors measure position, they measure vibration, they measure acceleration. Those are the three primary technologies underlying our sensors. Those are used, let your imagination run wild. They are used in robotics, they're used in automated cutting, bending, welding machines. They're also used in the testing of new products for fatigue resistance.

So by revenue, and this is a little bit older data by the way, we're in a quiet period. We haven't announced earnings yet. We'll do that in a couple of weeks. If you go back to the end of 2018 the split in revenue was about 60-40 between test and simulation and sensors, which is the predominance in test. A little bit smaller in sensors. But if you look at the profitability split, it's about equal. So, sensor is obviously a more profitable business, also a faster growing business for us.

So, we'll provide end of 2019 data fiscal 2019 which we just finished at the end of September here in a couple of weeks. But because of the growth rates, you can expect sensors to be an increasing percentage of the overall company at a higher margin. So it adds to margin lift over time. Both are very good businesses, large barriers to entry, virtually no new competitors and a very reliable revenue stream from R&D spinning around the world.

The founders of our company 50 years ago were wise in starting locations in Europe and Asia that we could grow from. If you look at what's grown out of those seeds that were planted, about 40% of our revenue comes out of the Americas. Most of that out of the

U.S. about 40% now is Asia. Okay. And about half of that is China and the other half is Japan, Korea and a small amount the emerging economies.

But China has been an exciting growth market for us, remains so and in spite of all of the trade conflicts and things going on remains a very good long-term growth potential. And why? Because the Chinese are determined to grow a domestic automotive and aircraft industry. And those laboratories are what we build tested machinery for. Okay. So test machinery, sensors, all of that a very, very good, nice consumption market.

India is emerging and a lot of the other growth economies. Europe has about 30% of our sales today, obviously growing slower but very long term, dependable, reliable customers across automotive and aerospace across that whole landscape.

The value that we offer to our customers is an ability to get their new material or their new product to market faster and more reliably. And all you have to do is open a newspaper these days and you see the fallout from not doing that well by OEMs, be it automotive industry, aircraft industry. When they mess up getting a new product to market, it costs them millions, if not billions of dollars.

Our equipment allows them to do it faster and more reliably than ever before. So, so it's essential to taking cycle time out of the new product market. We offer them an ability to get their product not only out reliably but more safely to the market and with more reliability. Our focus and our mission is to help them do that more quickly. Okay. Provide data more quickly, more reliable data, more quantities of data and allow them to use that more quickly in their settings for launching new products and new materials.

Our customer base is blue chip across the board, automotive aircraft. I won't go through all of the names. All of the leading universities in the world are using MTS equipment across the board for doing basic research and doing product development in their laboratories, for the reasons I mentioned.

This chart and while it is a busy chart with small font, I would tell you there's a lot of fundamental growth driver to our business, we're really excited about. From a competitive standpoint, no new entries in the market and you say, why? Well, even though the market is measured in billions of dollars, it's a difficult market to enter because it's a very high-tech market with very specialized testing requirements, deep customer, every customers develop new products in different ways with different tools. It takes a year to do that. There's very little standardized equipment that is used across various customer basis, so it takes you a long time to learn the business.

The payoff for doing it for very large companies is – because the market isn't so big that you're going to really move the needle for them. So, it's a relatively static market. In terms of competitive landscape, we're largely up against small regional competitors around the world or occasionally customers that want to build equipment themselves. What's driving the market for us?

I mean clearly automotive for years and years has been a, was been a good driver because of the proliferation of new products, including now electric vehicles, autonomous vehicles. Our specialty is durability testing. It's always going to be needed. It's an exciting market. It is a little bit more volatile than the other markets we serve. The aircraft market is still very good market for us, we're a dominant player there.

The materials market, and that's not only the evaluation of carbon fiber composites and new materials, but new ways of making components like additive manufacturing. So very exciting growth opportunities there. The newest area that we've moved into with our ability to control motion very sensitively for testing has been the simulation market.

Originally was simulation of earthquakes and now for seismic testing and other structural applications we've moved now and we enabled this through a small acquisition we did last year into flight simulation. So we moved into pilot training and building flight simulators, at least the motion systems for flight simulators and the recreation of flight environments for amusement parks. So any large well-equipped amusement park that does a flight simulation of any type, it can have our motion products in it. So we're moving more into the simulation environment now from test. And those are the fundamental drivers, the drivers for the sensor market is very simple.

You see sensors all around you every day in life. Heavy machinery required, which we serve requires much more sophisticated sensing technology, much more durable technology. That's where we focus. Higher ASP, lower volumes, higher ASPs, higher gross margins, that's where we like to carve our niche. We are not in high volume consumer-driven applications. They are industrial type applications.

So we view our products as mission critical because we're on the critical path to getting products – new products launched and out the door, which if it misfires, obviously can cost our customers millions of dollars. Because of that this next couple of charts paints the landscape of the market growth for us. So this would basically mimics our revenue stream and coming into the test business and the sensor business as it goes into test. This is a climb in the global R&D spend over the last decade.

Okay. And you see up into the right virtually continuously and it's hard to see the dip that was associated with the recession years ago. And that's because R&D spending is very resilient. Companies are very lows to cut their R&D spend, number one, it's a small spin for them generally and it's critical to their future. So they'll cut factory spending, they'll cut other expenses, there are loads to cut R&D spending, gives us more resiliency and visibility into our market.

And from a sensor standpoint, these two charts are meant to dazzle you with the size of the sensor market. \$150 billion going to \$283 billion by 2023 remarkable size market, which gives us the flexibility to carve a niche. And our niche is industrial sensors, okay. Rugged, reliable, high-performing industrial sensors and get low volume, high ASP type sensors that we manufacture and design largely in the Americas and we ship them all over the world.

So we love this business. It's going to continue growing for us very nicely. I'll talk about the growth dynamics in a minute. We have been running record backlogs in our business, largely driven out of the test and simulation business. It's more of a project-driven backlog business, but you can see our backlog climbing, in parallel, our revenue climbing on the lower right hand chart here, we're approaching the mid \$800 million range now that should approach \$1 billion here over the next couple of years in revenue at our current growth trajectories.

Revenue and gross margins have been stable and climbing, EBITDA margins have been climbing both on an absolute dollar basis and on a percentage basis. So if you look on a blended basis today, we'll be growing our top line as we project out for the consolidated company at about 7% a year organically.

Okay, and EBITDA margins climbing into the upper teens over that same kind of time period. And I'll talk about that more in a moment. One of the lovely aspects of our business is its very low and capital intensity. Okay. We occasionally have to build a new building for capacity expansion, but fundamentally year-by-year, we spend 2% to 4% of sales on CapEx. Why? It's because we design and assemble equipments. Okay. We have core technologies that we're vertically integrated on, a few of them, but largely we design and we procure parts from suppliers and we assemble the product. It means we have a low CapEx requirement so we can spend our cash elsewhere.

You can look at what we've reported for 2019 so far. Nice revenue growth, 19% EBITDA is up 27%, earnings had been climbing. So obviously we love the short-term trends in the business. And we are using our cash right now to delever our balance sheet. We've done a number of acquisitions in the last few years. We're using that cash down to delever the balance sheet while we continue to support our dividend.

Our leverage ratio at our last reported number was up in the upper threes. We've been driving that down and we expect to be back in the two to two and a half times leverage over the next couple of years. And again, those are largely now bolt-on, tuck-in type applications in our platform. So in terms of we are large cash generating business, we require very little for continued growth. So what do we do with our cash?

So the near-term priorities delevering the balance sheet while we continue to pay our dividend. We obviously wanted to maintain liquidity to run the business. We will continue to support our dividend, which we paid for over 40 years. Today we yield about 2% on the stock. We'll continue doing that while we have a preference for excess cash beyond that and delevering right now, when we're down in the two, two and a half times range, we'll continue to look then at share buybacks or other use of capital deployment.

But those are our short-term needs. We continue to optimize with these low interest rates, optimize our capital structure in the business and we'll continue to do so. So where does the rubber hit the road in terms of our projections. As I said, we'll end 2018 here in the – you can look at our guidance range, the midpoint of our guidance range for fiscal 2019

was 885. We're looking at 5% to 7% organic growth over the next few years, which will take us over \$1 billion in 2021 and 2022.

Gross margin should lift from 38% to 40% and most of that lift, I would tell you it comes from sensors growing at roughly twice the rate of our test business. So it's a shift in the business mix. Now that we expect also margins within the businesses to improve but the overwhelming effect is we now have critical mass in a sensor business that's growing at twice the rate of our test business and lifting gross margins, which then cascades the EBITDA margin lift as well. So we'll move from the mid-teens to the upper teens, in terms of EBITDA performance here over the next three years.

The outlook for the company, I would tell you from a macro standpoint is quite good. The world continues to rely on new products. Anything that you can imagine, cars, planes, trains, new materials of construction, new composite materials are booming. Additive manufacturing while you don't read about it any longer in the papers very much is transforming the way those products are manufactured, which in turn means they have to have more testing, a component made through additive manufacturing, much different properties than a component made through traditional casting or machining efforts.

So that has to be tested. Anything that drives testing for us is good, it consumes the machines, it consumes the services to maintain the machines and it consumes sensors to do the test. In parallel, industrial automation continues unabated. If you read the productivity numbers that are published every month, factory productivity is essential, especially when you're running at 3% unemployment in the world or at least in the Americas here.

So automating those factories essential and sensors are the key to doing that. Those are the kinds of markets we favor and focus on. So we're excited about our organic path. As we continue to manage our leverage down, we will continue to do bolt-on, tuck-in type applications. We have critical mass in both the test and the sensor business today. So we — our acquisitions are really opportunistic for us from here and they're largely in the form of these tuck-in type applications, which are non-market, non-public market type deals generally. And we have a large range of opportunities there.

So with that, I'll wrap up my presentation and open it up to questions. Can we do that Matt?

Q&A

<Q – Matt Krueger>: Yeah, absolutely. Great. Thank you, Jeff. And just as a reminder for the audience, it's session5@rwbaird to send any questions. Maybe I could kick things off and take a high level view of the company. You guys have benefited from some substantial revenue growth over the past three years. Can you talk a little bit about some of the underlying organic drivers and what a sustainable organic growth rate looks like for MTS. And then we'll get back to M&A after that.

<A – Jeff Graves>: Yep. You got it. So first and foremost, you should look to your organic growth possibilities. We are really proud of what we've delivered and also the prospects for the company. If you think about it for each business, in the test and simulation space, there's a couple of areas that are really going to drive growth for us.

New materials and again, a lot of people look at this and it doesn't jump out to you every day, but when you really look at what things were made up today, composite materials are booming, absolutely booming. They can be on the exotic and carbon fiber – continuous carbon fiber reinforced composite materials for aircraft and now for cars. They can also be in less exotic materials like concrete, asphalts, different things for improved road wear and avoidance of puddles, things like that.

Our machines test all of those. And you were getting back to a point of doing deep sea exploration for oil, things like this, our machines are masters at testing the soil and the ground that people drill through to tap into oil and gas supplies. So be a fracking or be a deep sea drilling, our ability to build a machine that can simulate those environments and study how rocks crack or how soil is drilled through is unmatched.

So those are the main drivers of our business. Materials testing we moved into this new segment last year of pilot, a flight simulation for pilot training, which we are very excited about. If you take five minutes online to look up how many pilots are going to be needed in the world in the next decade. It is enormous. Because of the backlog of airplanes and retirements fundamentally, in the Western world is retirements, in China and elsewhere, it's the need for new pilots to pilot new airplanes.

All of those increasingly require is very apparent to us all. These operating systems are complicated for new aircraft. It requires more hours in flight simulators just at a time where they need more pilots. So we moved into that market very deliberately a year ago. It has outstanding growth or organic growth possibilities now for us going forward.

We're one of only two companies that are approved by the FAA for flight simulation, for pilot training, so it's called level D certification. We're one of only two companies in the world that have that certification and today we have a relatively modest share of it. We're new to it. And so there's a nice amount of share growth there.

On the sensor side is the proliferation of industrial sensors in factories and in testing that's going to drive this business. We also have a new branch of the sensor business that addresses military sensors, sensors for the military. And we have a nice backlog, a very robust backlog of military contracts for our sensors, our industrial sensors as well for military applications.

So across the board, we're excited about that. We think it will deliver on average 7% type organic growth rates going forward. And obviously, that will translate into higher profitability growth rates from that organic growth. And then on top of that, we have M&A opportunities.

<Q – Matt Krueger>: That's great. Very helpful. And then a quick question from the audience. So digitization of test and simulation has been introduced by a variety of companies. Do you view this as a threat or an opportunity for MTS?

<A – Jeff Graves>: Well, I probably view Morris opportunity, since I'm an engineer by education, since I left school and entered the aviation industry, there was always discussion of, well, what can you simulate and what do you actually have to test? There's always discussion of that and there always will be. There's a role for computer models and there's a role for actual physical simulation increasingly. So both are growing, increasingly, they have to work together. So what's happening is the growth of computer simulation is fantastic. Computers are more powerful. They're doing a great job. The need for mechanical testing is growing in large part because vehicles, be an aircraft or ground vehicles are so much more computer-driven these days. Drive by wire or even autonomous, moving to autonomy. The complexity of how the vehicle behaves, you can't fully simulate and you can't simulate reliably.

So the testing and the virtual simulation, you have to work together. We're masters of making them work together, okay, interfacing with the right tools in the world to do that. And that's what we will stay doing. We will build machines, the simulate environments for flight or for testing. And we'll make sure those machines are the smartest in the world in interfacing with computer programs because the guys that do computer programming are excellent and they're very big companies.

And to wade into their space and compete with them would be a grossly unequal battle, went one direction. So we will focus on physical simulation interface with all the best models in the world and because of our customer relationships, we can make that workforce for a long time.

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<<Matt Krueger, Analyst, Robert W. Baird & Co.>>
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Great. Thank you, Jeff. Well, I think that's all the time we have for today. Thank you, MTS.

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<< Jeff Graves, Chief Executive Officer>>
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You're welcome.

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<< Matt Krueger, Analyst, Robert W. Baird & Co.>>
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And we will be hosting a breakout session just in the foyer outside for follow-up Q&A.

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<< Jeff Graves, Chief Executive Officer>>
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Thanks for your attention, folks. Matt, thank you.

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<< Matt Krueger, Analyst, Robert W. Baird & Co.>>
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Thank you.