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PRESENTATION

Michael Leyba

All right. Can everyone hear okay? All right. Good morning, everyone. My name is Michael Leyba and I do Investor Relations here at Trimble. Welcome to our 2018 Analyst Day, and thanks for coming to Westminster, Colorado. We have a busy day planned and I think it'll be worthwhile. A couple of housekeeping items first. Restrooms are through the lobby back by the lunch room. The slides for today's presentations should now be on the landing page of our investor presentations website. If you go to events and presentations and scroll to the bottom, you should see our business and reporting segment slides available for download. The slides for the financial overview will be uploaded after lunch.

So safe harbor slide. You know this slide, but please read it at your leisure. In particular, I'd like to point out that we'll be talking to some non-GAAP financial measures today that are fully reconciled to GAAP measures on our Investor Relations website.

Next for the agenda, we'll start with Steve. Then Doug Brent will give an overview of our technology. Then we'll have our presentations on each of our 4 reporting segments and we'll end the morning with lunch. You'll notice we don't have a formal break scheduled, but feel free to come and go as you need to take breaks as you need throughout the day.

After lunch, we'll have a short presentation on our emerging technologies. And then, we'll get into the financials and targets. And then, we'll have a Q&A session. We'd like to ask for you to hold off on all your questions until the end of the day, and we'll have more than enough time to address your questions during the Q&A session at the end of the day. Lastly, I'd like to note that we'll have tours of the new building, with a focus on the

range of Trimble technologies that are used in the construction of the facility, which you probably saw is nearing completion. Those will be at 2:30 and 3:00 and we'll have signup sheets for those outside these doors by the beverages. There'll be 2 shuttles that will depart to Denver International Airport at the end of the day. 1 will be at 2:45, and the other will be at 3:15. There is also a signup sheet for those as well.

So at this point, I'd like to introduce our Chief Executive Officer, Steve Berglund.

Steven W. Berglund - *Trimble Inc. - President, CEO & Director*

I'm the lead off this morning, and will set a preamble for everyone else today. So I won't be going into much, much detail myself, but hopefully setting some of those major themes for the day.

Starting with these, if you leave with anything, I would very much like you to leave having put these items into your permanent memory as takeaways. Starting with, I think, the basic theme of Trimble, and it'll be reinforced throughout the day, is that construction, agriculture and transportation, our largest industries that we serve, are undergoing a technology-driven transformation. Historically, we've always talked more in the future tense about the coming transformation. I think it's becoming safer to talk about being in the transformative period. And when we talk about transformative, what we're talking about are significant changes, not 3 or 4 percentage points of productivity improvement, but 25% or 30% changes in productivity, about eliminating entire process steps from the workflow, and about massive elimination of waste. So some of these industries, in particular, construction, suffers from major levels of rework. Technology has the potential for more or less eliminating that rework, which will have a transformative effect on the industry. The second point, network effects amplify opportunities to deliver system productivity. The point being here and this is really the major theme of Trimble across these industries is that, it's not just about points of productivity, it's not about individual operations, it is about that, so for example, you saw some examples out in the parking lot this morning of technology that can improve the productivity of an excavation process or a dirt moving process of perhaps 25%, 30% just by the use of the technology. But what's the meaning of that if that machine then goes to the next operation and finds out that material is not available or that for other reasons the schedule is impaired and it has to sit for 0.5 day. What happens to those 25% or 30% productivity improvements in the larger context? So it's really the larger context that matters. Network effects do matter in terms of taking into account scheduling, project management aspects, as well as just the point productivity that we get through an individual operation.

The third point, Trimble is uniquely positioned, and we have taken recent steps to accelerate that unique positioning in these marketplaces. This unique position is a result of a number of different factors. First of all, deep domain. This is not -- we're -- as a company, we're not just about providing innovative functionality, but it's innovative functionality within the context of the user. Others may be able to tell you how to move dirt from one side of the road to the other in a road building type application. Trimble is positioned to tell you why you should move the dirt from one side to another. I think when Doug comes up here, he'll make the point about domain expertise being at the center of what we do.

Another element is, of unique positioning for Trimble, is the combination of digital and physical. I'll come back to that. But we are a company that is equally comfortable in the physical world. You've seen examples of that in the parking lot, but also how that physical world interacts with the digital world and how the digital world effectively drives physical actions. Trimble has a unique capability there.

Scope and scale. Scoping the range of things we do. Scale being the level of which we can impact situations, providing a service person in Kenya for example. Scope and scale are beginning to matter in some of these industries more than they did historically. Again, we've taken recent steps to step up in terms of the realms of scope and scale and you'll hear more about that during the day.

The mixed fleet is a central issue in all 3 of these major industries, construction, agriculture and transportation. A contractor or a farmer or a trucker does not need a different technology regimen arguably, maybe best-in-class from 5 different manufacturers of equipment. They want one technology regimen that covers them all, Trimble has a unique role to play there.

And then, the end-user focus. Trimble is an end-user company. Our focus is on the ultimate user of the technology, what their needs are and how those needs play out. We have no ambition to be a provider of parts or components to an OEM. That may be part of the strategy, but it's an enabling strategy. We are an end-user company emphatically. Compelling addressable markets as the day goes on, hopefully, we'll provide you with

information and perspective. In terms of the addressable market, suffice it to say is that we have significant market runway available to us. The issue is more about execution than it is about the conceptual size of the marketplace. We'll point to that as the day goes on.

The financial model. Today's financial -- Trimble's financial model today is the most robust and resilient that it's ever been in terms of -- if you look at the portfolio of businesses, geographies and capabilities within Trimble, it is more balanced than it has ever been in its past. Therefore, more resilient against downtimes than it has ever been before. Rob will speak to that later in the day. But given the growing importance of software in the mix, there is significant opportunity for margin expansion in the next few years. And finally, just emphasizing the fact that should already be clear, our focus -- our market focus is a vertical market focus. We focus on the end user. We focus on the needs of the individual vertical market, but at the same time, we build our organizational response on common technology platforms, on common organizational and operational platforms, we are one company. We are one operating company and not just a collection of businesses.

A little bit of history. Trimble is 40 years old today, not today, this year. For all I know, it might be today, but I don't think so. And what makes us a true statistical anomaly in the context of publicly-traded companies, in that 40 years, we've had exactly 2 CEOs. You're looking at one of them. The first one was Charlie, who's sitting here in this picture. And really in some sense, you can talk about Trimble as being -- as having 2 historical eras. The first really -- the first 20 years was really built around technology. Charlie was and is a premier technologist developing GPS as a technology for really much of the first 20 years. And the point of differentiation was pure innovation. Trimble was an exceptionally innovative company during that time, really created a number of different markets. In 1999, a bit of a change of emphasis, that's when I arrived. And from a kind of a pure technology focus, defining ourselves in the context of technology, we really started to define ourselves in terms of the user. How can we make the user more productivity (sic) [productive]? That has really been the dominant theme for the last 18 to 19 years. And the point of differentiation is no longer innovation by itself, but innovation coupled with domain. Again, a common theme here is embedding the domain knowledge into the innovation that we're doing and really providing a unique set of capabilities to the user, oftentimes enabling us to charge a premium price for that.

This is the, let's call it the long view on revenue development, really goes back to 1999. Really the, if you will, reflects the outcomes of the current strategic focus on the user and user productivity. So 1999 through 2017, 18 years, compound revenue growth during that period, through that 18-year period has been approximately 13.5%. And since -- in the last few weeks, the word cycle seems to have reentered the vocabulary people are using with us. Let me point out the 3 periods of stress during this 18-year period. The first was 2001 recession followed by probably around 9 months of decisionmaking meltdown as a result of 9/11. So that was a down cycle for us. The other one was 2009, which some of you may actually remember. And the third was really 2015, when we encountered a significant drop in agricultural commodity prices as well as oil prices that affected our agriculture and our Geospatial businesses. Those are the 3 periods of some stress for the company over that 18-year period. In reality, we've had 2 down years during that 18-year period. We've had only 2 years, where revenue was actually down. And in 2015, it wasn't down much. And then followed by actually quite quick recovery. In terms of the current state of cyclicality, if you will, I think Ag, we would still regard as being at the bottom conditions of the cycle. Ag commodity prices have not recovered. We would hopefully convince you during the day that construction, the secular forces loose in construction at this point in time potentially outweigh the cyclical on construction not that we're seeing any signs of cyclical issues at this point in time. And the third is transportation, which I would argue is -- it has capacitance, if you will. It is typically large players with large balance sheets, thinking in multiyear terms. We're not necessarily directly exposed to any [kind of] cycle there.

The end market, those market conditions actually are reflected in the share price. You see the 3 points of stress. But overall, over that 18 period -- 18-year period, the theme has been creation of shareholder value throughout that 18-year period.

So this was Trimble versus the S&P 500 over that time period.

Now I mentioned scope and scale. Scope and scale are becoming a larger part of the world that Trimble lives in. Again, scope in the definition I'm using basically is the range of things Trimble can bring to a user. Scale is, putting it in simple terms, is the ability to put a service person on a problem in Kenya as to be able to demonstrate worldwide capability. So those are -- those 2 things are beginning to matter more and more as the market develops. There are larger balance sheets coming into the marketplace. In recent years, names like Oracle, Monsanto, Verizon, as well as Deere, which has been a competitor to Trimble for 15 or more years as well as private equity-backed efforts in a number of cases. So larger balance sheets are entering the Trimble space or Trimble is entering their space, one or the other. First of all, balance sheet does not necessarily correlate with success. I think there are a couple of examples, okay, we've competed successfully with John Deere for over 15 years. And the PeopleNet part of the transportation space, until Qualcomm took itself out of Omnitracs, we competed successfully against Qualcomm. So balance sheets are not

necessarily an indicator of success. Agility, innovation and adaptability would be my argument and response, but at the same time scope and scale are becoming more important to the users. And again, I would argue that in the primary markets of Trimble, we have the scope, we have the scale. In fact, in many cases, we are the ones with both scope and scale relative to everyone else. So these are a number of vignettes, if you will, for each of these spaces talking about the numbers. As you can see, in many cases it's millions or in some cases billions that we're using to demonstrate both our scope and scale here.

Now we create value by focusing on solutions that are specific to vertical markets. That's how we manifest ourselves externally. In most cases, that's how we manifest ourselves relative to Wall Street in terms of talking about agriculture, talking about construction or talking about transportation. But in reality, we have -- this verticality is really based on -- upon common platforms, either technology platforms or organizational platforms. Doug will speak to some of the technology platforms that underlie what we're doing across the company. And sometimes, that trend is accelerating as opposed to remaining steady state. We are building more and more on common platforms within the company from a product and technology standpoint. At the same time, all the businesses that you'll see today, share a common procurement, share a common logistics and share a common IT organization, so the internal plumbing is very much common. So we are an operating company. We are not simply a collection of businesses. Now throughout the day, we will talk and reinforce the concept of digital and physical. This is an important element. The physical and digital world are interacting all the time and are actually that's at the core of much of the value that we provide. So taking an example. Taking the new building that sits behind us and a crude example, it's possible to go in every morning before the crews show up and to do a scan of the building to see -- to determine as built. What's happened in the last 24 hours? Doing a laser scan of the building gives you an impression -- gives you a model of what is -- what the current status is. That current status can be compared to what the model says it should be. If they are different then it's possible to make corrections. And then, if you will, inform the tools and the machines that are being used on the site with an updated view of the model and correct. So it is continually physical to digital back to physical.

So this ability to have -- be comfortable in both worlds is an important element. We regard it as being a key element of what we're doing in the company, and it does make us unique. The set of common capabilities in both physical and digital is one of the unique and recurring themes within Trimble. You'll hear more as the day goes on.

This representation you'll see repeatedly through the day, in the context of the individual businesses. But managing the workflow is the central theme across Trimble. Over the years, we have evolved and developed this theme of the workflow. You'll see examples during the day. In fact, you may have already seen some examples earlier this morning. But the elements of this are making the common and verified data available across the spectrum. So the different elements -- the different participants in the workflow have access to a valid, verified database with integrity right across data is shared, and therefore, you don't have these drop offs of data from process step to process step.

It also enables the different constituencies within the work process to play well together. [First that] and playing well together, the architects and the contractors typically -- historically kind of mortal enemies. Technology actually enables them to collaborate in a common framework, and you'll hear more about that.

And then finally, and this is a theme that was emphasized with the recent acquisitions of e-Builder and Viewpoint. This time the field work, the work out in the field more closely with the back room enterprise and making sure that the -- if you will, the enterprise systems are consistent with what's going on in the field. And in fact, are informed real-time by the field in terms of, okay, moving more closely to being a real-time capability as opposed to simply when available.

This will be -- this data will be explained in more granular detail as the day goes on. But reinforcing the point that we are not conceptually limited in our pursuit of growth. We have plenty of market runway. And this is a relatively aggressive view of the marketplace. It gives us lots to do. That is intentional. Now in terms of addressable market, the definition in this case is in effect let's [leave] all instances out there that could beneficially use our technology out there. And then, the penetration is the percentage of those instances that could beneficially use our technology, that are actually using our technology. So when you see in aggregate a 33% or less penetration rate, that means that the majority of the market is still there to be penetrated, again giving us the potential for significant growth in the future.

And the key element here as I said before, is this is not about kind of the ability to conceptualize the market. There's plenty of market there. It is really about execution. In some cases, such as Geospatial, the low-hanging fruit in the marketplace has already been plucked. The rest of the market is going to require a little bit more intelligence and a little bit more perseverance to capture, and will require a strong execution.

This is the management group. Not everyone you'll be seeing today, but this is the operating management of the company here. And in effect the -- talking about capabilities of the company, this is ultimately where the game is won or lost by the quality of the management group and the quality of the organization. Let me emphasize the expertise that's resident in this group. If you needed to operate a bulldozer, if you needed to have a debate with an agronomist, if there are any agronomists in the world, on soil chemistry or if you needed to write a statistical algorithm to optimize something, okay, this -- the pictures -- the people in these pictures are capable of operating at that level. We emphasize this domain. We really mean it and we are experts in our markets.

This -- Rob is going to talk more about future growth. He's going to name a number over the next few years a 9% to 12% annual growth. This just sets the historical track record here, breaking out organic and the other factors, M&A and FX primarily the other factors. So the period from 2003 to 2017 of that 14-year period, okay, we grew at a compound rate of 12%, 2/3 of that being organic. 2017 certainly reinforced that. And in terms of what we are saying about 2018, the first quarter already having been delivered and what we're saying about 2018 should provide some reassurance here relative to maintaining something that looks like the historical standard going forward.

Go-to-market is important. Technology and innovation in some sense lets you play the game. It gives you a place at the table. It's table stakes. The winning hand will ultimately be determined by who wins in the go-to-market arena. Trimble is adaptive to the market segment. We build our distribution channels around each market and each market segment. We are comfortable and have presence in both direct and third-party channel, as well as partnering with people. So I think, this -- you'll see this reinforced during the day, but this is a key unique and determinative of future success, is the fact that we have a rich channel, and can adapt to circumstances in a way that others may not be able to.

As I said before, the portfolio is more resilient than it has ever been in Trimble's history. It is less reliant on Geospatial and less reliant on agricultural than it was in 2015. Large accounts have become a larger percentage of our business. They tend, again, to have a multiyear perspective. They tend to have large balance sheets and tend to invest in whatever stage the cycle may be in at that point in time, plus global diversification. Our relative organic rates have tended to be higher outside of the U.S. The non-U. S. portion of the company is growing faster, a more diverse mix geographically.

Acquisitions have certainly been a factor in Trimble's history. Some of them have been transformative, and setting us off in new directions or enabling new directions. I would put both e-Builder and Viewpoint together in that category of -- in a sense, doubling down on the construction transformation and giving us a unique place in the marketplace. Otherwise, the longer list has tended to be additive in terms of creating market adjacencies or adding technologies that would not otherwise be available to us. So acquisitions are important to us, but our fundamental cultural core is an organic growth company. Our first emphasis is on organic acquisitions are means to an end, but our foundation is as an organic growth company. Again, just a reminder, these are the things you're supposed to remember from today. So please do. If you need to practice, I'll help you. But let me turn the [day] over to Doug Brent.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

Okay, sorry, about that, I forgot. So good morning, everyone. Sort of fasten seat belts because in 20 minutes we're going to cover all the technology that Trimble makes -- not really, but we'll try. My name is Doug Brent. I've been at Trimble 7 years. And in, actually in talking with a few of you this morning, I realized that what may not be totally obvious is obvious to us, we live here, work here every day, is Trimble has changed a lot in that 7 years I've been here. Today, we're certainly a systems company, but way more of a software company than we were 7 years ago. So I'm going to try to maybe update your frame of reference a little bit today about who Trimble is.

Certainly, we both develop and leverage cutting-edge technology. I don't know if people saw the demo out there of our transportation group using TensorFlow neural network software to detect proximity of vehicles. We're not going to write our own neural net system, we're going to use the nice one Google provides. We're really executing a software platform strategy. I'll go through some numbers here that I hope help convince you. I saw -- by the way, I had a quiz in my presentation and I was sitting in the back seeing everybody read through it ahead of time. So if you haven't yet, hang in there, there's a audience participation part. And both on the hardware and software side really building platforms and talk

about that. And then finally, for a company that is truly a global company and sort of multi-local, our products really are different in different parts of the world. How do we foster global innovation and what are we getting out of that? So since I'm going to talk a lot about software -- of course, I want to talk about -- start with systems. How many people got a chance to see that SX10, that thing in the left-hand side? So a few. I was hoping for even more. It's about a 18-month-old product from Trimble. It's a breakthrough product that competitors have not yet matched, that both does long distance measuring kilometers, over kilometers, millimeters of accuracy, and then can scan a scene as well. It's really been a breakthrough in terms of productivity for our customers and it's an ultra-sophisticated system.

In the lower right-hand corner, there's something at the total opposite end of the spectrum, again, hopefully people saw Hard Hat HoloLens out there. It's really just a couple of plastic connectors that connect a HoloLens to a hard hat. But that's something, again, that as a systems company, we can say, we're not going to try to create our own augmented reality system, Hard Hat, to make that work, we'll just take the best technology available. We did that in conjunction with Microsoft. And it's actually surprising to me how many of those have already been sold, that was just announced, I think, a quarter ago.

In the upper right-hand corner, what you see there is, I think, blending these systems of hardware and software in a way that really delivers productivity for our end-users. So that worker there is trying to locate a point on the floor. He has in his hand a tablet that could have a constructable model. It could even be a PDF, locates a point in that model. The total station in the building shines a laser light within millimeters of where that fastener goes. So high productivity, especially for complex layout tasks.

So that gives you sort of a sense of both the hardware side of that and software, that's critical for delivering the solution. So it's not only the technology that is delivered to customers, that's sort of sophisticated and complex, I want to take you through -- I told the guys in Danderyd, Sweden, that I was going to talk a little bit about SX10. They made a home movie of how they make the SX10. So I'm going to share that with you for 90 seconds. And by the way, I guess that's something you can't see in the PDF download, so you'll have some new news here from me today.

So probably a key to start out with is the advantage we have in 1 building -- on the third floor, we have the development engineers, PhDs and optoelectronics. On the first floor, the PhDs and operations in sort of in a single building can have the teams necessary deliver these sophisticated products. Inside that SX10 are 4 cameras that actually allow for smooth, high-resolution zoom of up to 80x, that's used in that product. And then, the patent pending core of SX10 is this rotating prism. How you do scanning without moving that whole device around and keeping precision, you can see that spinning around there, that's how the laser light is spun. One automated part of the manufacturing process for SX10 is this robotic layout of optical encoders that measures angles of the device and has to be done ultra precisely to yield a working product. And then really most important, even more than automated assembly is automated test of these kind of optical products. He's actually sitting with a Microsoft guy building HoloLens. It's a hard problem.

And each of these products has to be uniquely tested, characterized and then sort of a personality installed in the product. In that chamber you see right now, it's tested from minus 5 to 120 degrees Fahrenheit. And the last little picture here, when it snowed on the roof in Danderyd, the roof went down by a couple of millimeters. We had to use a T4D infrastructure monitoring system to account for that couple of millimeter change to ensure that the product testing on SX10 was still being done correctly. Bottom line, there's a few companies in the world maybe 4, maybe 5, who have the capability to build this kind of ultra-precise, ultra-rugged equipment, and just -- our next challenge is to make even more of them for our customers.

Okay. So now on to the software side and really software platforms. Some of what you see here won't be unique to Trimble. We're not trying to create all-new unique software architectures, we're trying to leverage what's out there. But a requirement on Trimble that's higher than on probably other companies is we want a world of all-new native cloud software, but we have legacy assets that may not make economic sense to rewrite. So we have to be able to accommodate both cases, all-new and legacy.

Clearly, internal efficiency is a goal as it should be for every company, that's -- if you're reusing, you're getting faster pace, more interoperability. I think, unfortunately more and more important with stuff like GDPR or cybersecurity, trying to test these things once for compliance and reuse them. But most importantly, it's really that these kinds of software solutions need to be customized and integrated by customers. And ultimately, that's our direction, to allow for a lot more customization.

We are not -- this is not sort of the 10-year-old platform idea of adopt our platform or reject our platform, it's incrementally use services from the software platforms that we have. And our assumption is, they'll use some of ours, they'll use some from others, and we have to make that easy. And really that's the basis, as I said before, for solution integration. And I think very importantly for Trimble, common software platforms mean a common way to ingest data and then have data analytics that provide value across multiple Trimble businesses.

So these kind of -- this diagram I hope looks familiar to you. The pieces for us, major pieces are at the bottom. A cloud operations piece, which would handle interactions with an Azure or an AWS, have logging availability, deployment of applications. And really the goal there is to have high availability of the cloud applications. I can't get away from acronyms, Rob has tried to help me. One you'll hear from me is TPaaS, which stands for Trimble Platform as a Service. It's sort of a standard platform-as-a-service technology, but adapted for us. It's both an architecture for any application to plug into. So it's sort of an architecture. Additionally, it's a set of services, identity and other services that every application will need.

In the middle on that diagram, we've identified some grouping of services that make sense for particular businesses. So in telematics, it's getting, ingesting the data from multiple devices. It's being able to handle message queues long -- millions of messages coming from these devices. In the case of Buildings Connect, it is display a 3D model everywhere from HoloLens to a desktop. It's annotation of the models, it's sharing and collaboration. So we think we have an opportunity to sort of factor out and make common at multiple levels in the stack and, of course, applications on top.

Okay. So now we get to the audience participation piece. And if you've read ahead, don't raise your hand. So just to give you a sense of scale and try to have a little fun with this, putting real-world scale around where we are in implementing, what I hope is a 20-year vision of this -- of our architecture -- software lasts for decades. So where are we now in that journey? So starting out with, how many UN countries are identified in the world today?

Unidentified Participant

217.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

217, good guess. Right order of magnitude. So today, starting from a stop point of 2 years ago, where we had nothing, this TPaaS was new to Trimble. We now have 150 applications within Trimble today using this TPaaS ecosystem. Okay. This one, you should be good at. Number of business trips per day in the United States? Any mode of transportation. Order of magnitude. Come on, make a guess.

Unidentified Participant

10 million.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

10 million? It's actually...

Unidentified Participant

5 million.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

5 million, a little closer. So it's 1.4 million. So it's -- and today in the TPaaS identity system, we have 5.3 million users who are using this identity system. So we have sort of an ecosystem today around identity, that actually sort of scales to what we need already. I know one person in this room looks young and may not know what Encyclopedia Britannica is, but for those who know, number of words in Encyclopaedia Britannica.

I should say source is Wikipedia for this, so there may be some competitive juices there. Go ahead.

Unidentified Participant

50,000?

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

50,000? I'm impressed that you raised your hand and you answered that question because you probably have never seen an Encyclopedia Britannica. But the answer is 44 million. And this was totally coincidental. Today, our data gateway for telematics is processing 44 million messages a today. That's from 147,000 vehicles from multiple divisions. So when Steve says, we're not just sort of an agglomeration of businesses, we have ag businesses, construction equipment like you saw out there, trucks, all reporting into this data framework. It's not done, we have more work to do, but we're processing 44 million messages from a 150-ish thousand vehicles today. Last chance to play. City of San Jose, 10th biggest city in the United States, what's the population?

Unidentified Participant

800,000.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

Very good guess, 800,000. It's 1-point-something million. And today, every week, for our 3D warehouse application, we're getting more than 1 million unique visitors. So a little fun; after all, the day gets to be long. But the point is that, while as I said, I think we've decades of work to do on this architecture. I think that's a good thing that we have decades of work to do. This is real today. And I've given you examples from every level of this. From that TPaaS identity level, with 5 billion users to Trimble telematics system with 44 million messages and up to the application level for 3D warehouse, where we have more than 1 million users a week. So this is real, we're in execution on it.

And I think this is very important when you think about us and our ability to integrate acquisitions, this is that platform for us to do it for software acquisitions.

Okay, last topic. Oh, I'm sorry, one more on software architecture. I mentioned leveraging legacy was important because we're not going to be able to rewrite legacy in all cases. So we've developed internally a framework for taking a desktop, a client server application and making its services available in the cloud. And I'm not going to go into technical details of that, I don't have time. But if anyone is interested, I'll be here at lunch and would love to talk to you about this. But the basic idea is we could take an application, that's shown on the left-hand side, LiveCount cloud, which is a simple idea. I want to put in the blueprint, count the number of symbols on that diagram. If you're an electrical contractor and you have to do that and count hundreds of thousands of things, that turns out to be pretty important, we have a group in Germany who has built a product called eCognition, that's not a web product. eCognition is a very sophisticated image analysis product. We took the services of eCognition, made that available in the cloud. And a team of 6 people in about 6 months put together this LiveCount cloud application. So again, I'd love to talk to anybody in detail if you want to find out more.

Last point is on building innovation and doing that globally. Today we believe we have about 3,400 product developers around the world. Something that I'll say is a challenge, is that we have 22 offices with at least 30 people in them around the world. And as an old-time engineering manager, I'll

tell you that's a challenge, but it's something that we have to excel at. And I think we are more and more developing and being great at that. Of course, we do have some big offices, 600 people in India, hundreds of people in Cleveland, but we're really dealing with a distributed workforce. About 1,200 unique patents. Lots of specific activities we put in place to drive collaboration. If actually if you look on the right-hand side of that, you'll notice in the second 2 pictures, people are both wearing blue T-shirts. We held a Global Hackathon in the same 24-hour time period this year, it was our fourth, I think, where we had 850 developers just say, hey, I want to participate. So we're really trying to build that community. I'll say just quickly on joint ventures as well, that is a form of collaboration. Joint ventures are hard, but it gives us a way with our 2 Caterpillar joint ventures and Hilti joint venture to leverage our R&D resources.

And I think this estimate is low, but we went through an estimate from our HR system that says, we think we have about a 1,000 people, either from educational background or work background, who have direct domain experience in the work they're doing, not just software developers or hardware developers. Out of that group, I'm going to mention 3 innovation areas, and again, I'm just going to fly through this and give you some ideas about what we're up to. I hope you either saw before or may in the future the augmented reality work that Trimble is doing.

Trimble has actually been a leader in this area. We were one of the first commercial partners with Microsoft with HoloLens. We've been basically participating with every hardware vendor. And believe that this is transformative for anything that's connecting the physical and digital world. If I have digital data and I can visualize it in context, it's going to change the workflow.

Some examples here are you see in the upper left that's SketchUp for HoloLens. But we're expanding this augmented reality out in 2 ways, one of which is the applications and the second is where the work can be done. So in the upper right and maybe some of you saw this, a sitevision, which still is a prototype not yet a sold product, but I think, we have dozens of customers using this in a prototype phase today. That's the ability to take augmented reality outdoors, maybe look under the roads to see where the pipe infrastructure is or see where a new bridge might be or visualize what -- the connection between this building and the next one. The other one in the bottom right is this Hard Hat HoloLens so sort of taking augmented reality into the construction environment. And then in terms of new applications, believe it or not, in the Nordics right now, they're actually using without any other design drawings, just using augmented reality to build rebar cages for nuclear power plants actually, so ones that require pretty good precision.

Another area of innovation is blockchain. And certainly the financial industry, I think, is the only thing you can point to today where blockchain feels very real. For Trimble transportation businesses, we've been very active in blockchain-based solutions and have a couple of trials underway. And one -- we are on boards of transportation industry blockchain association, why does this matter? And there is so much noise and I think misperception about crypto currency and blockchain. I'll give you my 30-second view of this, that blockchain as a distributed secure ledger system is relevant for these multiparty transactions. This is the ultra simple view that says, we have shippers and brokers and carriers, there's many, many different parties involved, and they are running -- if you look at the columns of this chart, they're running many processes within their business. So they may -- a pricing analyst may originally do bidding, but once you get out to the far right-hand side the accounting, the tie between what was bid and what's actually built is very hard to make.

So Trimble is providing some prototypes around our TMW suite, 10-4 Systems and now starting with PeopleNet to get these trend -- to use blockchain as an authoritative ledger that's distributed -- and that has distributed updates. And the market need is there for sort of the transportation industry. The value for Trimble is that we have effectively the authoring applications that are going to create the blockchain transactions.

Last topic for this morning is automation. And I always start out this topic by saying, if I say the word autonomy, what comes to your mind? And I think we're all infected by thinking Google self-driving car. I want one of those personally, but there is a big economic opportunity other than self-driving car and that's in automation of the equipment. Still going back -- actually if you look in the upper left of this slide, Trimble was participating in the very first DARPA challenge with sensors on that GM vehicle. And recently announced -- I think within the last 6 months announced -- a partnership with GM on their Super Cruise product, which is actually -- if you haven't seen that, that's -- I really consider that a pretty nice implementation of driver-assist as it exists today. We provided them with some GNSS technology, and then, of course, mining vehicle automation as well. But I think the big economic opportunity for Trimble earlier today and forward, is this automation of vehicles in the work environment, in agriculture, in construction sites.

And there the dilemma will not always be, I've got to replace the human driving, the farm tractor, that human may not make a lot of money. And the economics of replacing the human are not very good. Automating the work, the economics are very good. So the big excavator you saw outside, if you didn't get a chance to go through that demo, that automation system allows an inexperienced operator or maybe a fatigued operator to just pull back on the joystick and dig a perfectly level trench. It sounds easy unless you've ever tried it before.

So this thing is actually changing the angle. It's sensing where the tip of the bucket is, where the arms are on that excavator, and it's continually changing the angle of movement the whole time. That is a very highly valued automation. Darryl will talk about this a little more, and Roz on the use cases.

Some other examples are road grading is done automatically. The Mueller-Electronic acquisition that Trimble did, I think about 1 year ago -- about 1 year ago, automating implement control. So when Steve talks about physical to digital, a big part of that is automation, which we do today in farming. And then I think expand it to the idea of, automating 1 vehicle is not that exciting, automating a fleet of vehicles and sort of orchestrating the worksite become very, very important.

So those are the 3 areas of automation, augmented reality, blockchain and automation, and that's just a taste. So hopefully, I've been able to get across the point that really Trimble is developing and leveraging cutting-edge tech, that we do have a hardware and software platform strategy that's in flight, that's real and that we're pushing this culture and creating the culture of -- a really sort of a different kind of tech culture because I've been in Silicon Valley my whole life, that says, we can build a multiregional local culture across the world. Okay. Thank you very much.

Ron Bisio - *Trimble Inc. - VP*

Good morning. My name is -- mic's on? Great. My name is Ron Bisio and I'm responsible for the Geospatial business at Trimble. So I actually joined the company back in 1996. And adding 3 years with one of the top Geospatial software companies, in June I'll be celebrating 25 years in the Geospatial industry, so it's -- means I started at 14. And -- but we're -- again, I'm not unique amongst my peers upstairs in a long time in the Geospatial industry.

So who are Geospatial's customers? Geospatial's customers are surveyors and mapping professionals who are responsible for measuring and digitizing the real world. So what they're out there doing is, they are out there surveying property boundaries, utilities. They're surveying property boundaries, utilities, pipelines, bridges, metro tracks. And why is there -- why is this so important now? Because before you can do 3D design and construction, before you can do utility asset management, you need to know the location and the condition of infrastructure and assets in the physical earth. You need to be able to take that physical earth, transform it into a 3D digital model, which is why this industry is so critical and why actually I'm starting off the day here from the business's standpoint because our customers are out there capturing the real world and then they're giving it to my colleagues in the business and infrastructure business -- and buildings and infrastructure business and having them do redesign, do construction with that. They're handing it to the utilities businesses in our emerging market area, and they're actually helping them build utility asset management systems. Critical element of that.

Geospatial is actually one of the -- historically, one of the first businesses at Trimble, just after the Marine business. And so we've been in this business for a long time. And traditionally, it's been a very hardware-focused business. However, in recent years, we've been making a lot of effort to increase the attachment rate of our software, and I'm going to be talking to -- more and more about that.

When you take the software that we have, the domain-specific field and office software, you combine that with our positioning services, provides considerable customer value. The other thing it does is, it provides a considerable competitive advantage for us, when looking at new entrants into the marketplace.

Our -- when you have the small task of converting the entire physical earth to digital models, your customers end up working in a lot of end markets. Our customers are in construction, they're in oil & gas, they're in utilities, they're working on transportation infrastructure, road, rail, waterways, ports. They're working on land information systems in emerging markets. They're working in defense. They're working in education. Again, wide variety, nice to have a very diverse portfolio of end markets for our surveyors. It's even more diverse in our mapping and GIS businesses. We have a relatively bad joke that we pass around upstairs, which is that our customers work everywhere from archaeology to zoology. Some days they're

going to be out mapping utilities, some days they're working for federal government agencies, like BLM, Bureau of Land Management, or the EPA, collecting information for them.

Even our mapping systems are used in agriculture for crop insurance mapping, for crop subsidy mapping. So again, another situation where data that's captured in our business is being used in other businesses downstream.

Key thing here is, Steve mentioned that there was a high degree of penetration for the Geospatial business, especially in areas like North America, Europe, Australasia. So what we have is, we're using innovation to drive the replacement cycle. And what do I mean by that? When we built our total addressable market model, we went out and did some research and determined that the average surveyor in North America replaces their equipment every 7 years. So if we can provide them with an innovative solution like the SX10, we can get that surveyor to want to replace and see value in replacing their instrument in 3 years or 4 years, thus increasing the addressable market. This is why innovation in a business like Geospatial is so critical, and you'll see as one of the 3 pillars of our strategy going forward, which I'm going to outline.

Another place that innovation is really important, Doug Brent talked about autonomous vehicles in the autonomy market. Trimble has a long history and many of the original patents in GPS, RTK, which is real-time kinematic surveying or inertial navigation systems. These are systems that combine GPS and inertial -- IMU systems, inertial measurement units into systems for positioning and orienting vehicles.

This technology is critical as we move forward in autonomous vehicles. The technology, as Doug showed in some of his images, are being used right now in the prototyping and the development phases. And that technology will be leveraged as the automobile suppliers move into deployment of their systems.

Taking a look at that total addressable market we talked about, the -- that $5 billion total addressable market, significant percentage of that is the surveying and mapping business, but it is -- it's far more nuanced once you get inside that total addressable market. You'll see that areas like -- when you look at the market model, you'll look at areas like emerging markets are growing the addressable market at a much faster rate. The autonomous vehicles and autonomy have a much higher total addressable market growth rate. So you'll see we have specific strategic initiatives focused on those areas where the addressable market is growing.

Second thing is penetration. We do have a higher degree of penetration than some of the other businesses within Trimble, especially in areas like North America, Europe, Australasia. So we're really focused on our emerging market strategy because those are areas where there isn't the penetration of the solutions that we offer in those areas. Also autonomy, wide open space, again, lesser degree of penetration, so a strong area of focus.

If you look at the geographic breakdown there, what's nice when you have a variety of market segments like we have, we're not tied to any particular commodity or end markets in any particular region. Sure there are some small examples, if you look at South Africa for example, South Africa is going to be heavily tied to mining. Chile is heavily tied to mining. But you look at a market like North America, our customers on any given day are working in construction, they're working in utilities. They're working on transportation projects. They're working in oil and gas exploration. They're not tied to any particular end market, which actually makes us a nice diversified portfolio from a geographic standpoint. Go-to-market is something we spend -- I spend a lot of my time on. 85% of the Geospatial customers are end users that are served by our distribution channel. We have about 200 distribution partners that are the -- they are very much the envy of the industry, in that they have high degree of domain experience and they put service and support their customers, a lot of customer intimacy.

These distribution partners are multigenerational. Some of them now are on second generation with them, and they've been with us for a long time, quite loyal.

Moving over to our hardware and software recurring. Obviously, I mentioned, this is a big hardware business. Software is an increasing part of that. And to give you an example of that, Doug showed the SX10 scanning total station. In the past, you might have bought 5, 6, 7 of those instruments and had it served with 1 piece of software. Increasingly, we're finding that our customers are needing to have one-to-one attachment rate with our software because we've introduced advanced modeling software that is -- that's very important. So for example, if you take that SX10 scanning total station, and you go out and scan a fuel storage tank, you can now use our modeling software to model the containment area around that tank as well as the retaining walls. You can actually determine if the tank were to rupture, could the containment area contain all the material inside

that tank, and even identify the spots in the retaining walls where the spills are going to occur. So again, preventing a disaster before it happens. Why -- so when I went off and studied cartography in school, my parents were not particularly thrilled. They were -- I think the statement was between my parents, don't paint his room, but there is a lot of need for Geospatial data in decisionmaking now. And an example of that is, for example, if you are running a utility and you've got utility corridors, you want to know where the trees and brush are that could potentially fall onto the lines causing a fire, causing brownouts, causing blackouts. Using that Geospatial data is important.

So for example, our customers use UAVs, helicopters and ATV-mounted mobile mapping systems to map the brush and the trees on the edge of the right-of-way. Then we use our modeling software to determine which of those trees could potentially fall, even looking at the health of the trees from the imagery to determine which trees are likely to fall on that. That's timely, accurate data that is required to make decisions. And our customers are asked to go out and continuously update that data. It's a very important process for them. But again, I talked about -- in that one example, UAV data, helicopter data, potentially even fix-mounted aircraft as well as terrestrial scanning and mobile mapping from a UATV, all that data needs to come together in a single piece of software and be able to be used.

When you put all that together, if there's only one word you remember from this slide, it's this ecosystem. What we do is we provide hardware, domain-rich field and office software, positioning services, plus this distribution network, we combine all that together and we call that this ecosystem that our customers participate in. It provides a considerable amount of competitive advantage for us. And it provides not only competitive advantage for our customers, but also a considerable amount of value for our customers in that all of that is integrated together from 1 vendor supported by 1 distribution partner.

A little bit more about the terrestrial aerial mobile mapping. These are 3 areas where mapping occurs. If you look on the left there, this bridge, traditionally a surveyor would have gone out and they would survey that bridge, perhaps they might take some images, capture some notes about that. Now taking something like an SX10, they're going to go out and they're going to scan that bridge, take it into our 3D modeling tools and then be able to do redesign of that.

In the middle there, you look at that UAV, that's a multi-rotor copter that's got a camera onboard that you can -- you take that, Trimble has positioning and orientation technology, which helps guide and position that multi-rotor, which if you combine the data from that UAV and the terrestrial scanning, you can get highly accurate models of structures, such as this -- the structure that is a very -- of interest to people doing archeological work. But again, you need to be able to integrate all those data sources together.

And finally, over on the right, this is our distribution partner in the U.K., KOREC. They've got our new MX9 mobile mapping system on there. And what they're doing is, they're actually able to drive that system through a roadway corridor or they could put it onto a high rail vehicle and put it on rail or even put it on a vessel and take it through waterways, as in Holland, as I'm told it's been done in Amsterdam. They can go out and capture information. So in the upper right there, if you're going to redesign that overpass and that intersection, you want to know very accurately where the overpass is, what infrastructure is there such as guardrails, the topography of the land, you want all of that data to be captured, you want to be very accurate, and then you want to put it together with airborne data and deliver that via something like Trimble Connect to the people who are going to be doing the redesign, and then the eventual construction and operation of those assets.

So again, it's why Geospatial and my colleagues in buildings and infrastructure work very closely together because we need to make sure that there is a seamless handoff of those disparate data sources via something like our Connect platform to the construction professionals.

Opening everything up here. This is -- our strategy really is very focused on 3 particular areas. I mentioned, especially in markets with a high degree of penetration, we're focused on driving innovation to drive that replacement cycle, that's very important. Things like the SX10, MX9 are examples of that. We are focused on emerging markets, and I'm going to go into each of these a little bit more, and fit-for-purpose products, pricing and go-to-market. And again, this autonomous vehicle opportunity, relatively new for us and we're really excited to be participating with our positioning and orientation technology in the early stages of this industry. This is an industry that's in its very early stages, and we're participating with -- helping to guide vehicles as well.

Jumping into that innovation to drive the technology replacement, let me give an example here. This is -- Rob mentioned -- or sorry, Steve mentioned POB -- there was a POB reference in there. That's Point of Beginning, for the survey geeks in the world. This is the publication you read monthly.

This is a customer of ours in Norway, who has recently purchased one of our SX10s. What they're doing in that valley there that they're in, is they're helping to position and adjust the lines, the high-voltage lines that are being draped across this valley. So there is a sag that's being set. So a traditional survey instrument will be shot at that line, and then they can adjust the sag. That's a standard application for a surveyor. What we've done here is because it's also a scanner, in the same instrument, in the same workflow, they can actually turn the scanner on and scan the lines and the towers. They now have a brand new deliverable that they can offer to their end-user. And this is an important step for them because, again, the margins are getting tighter in the survey industry, they want additional services they can offer, but they don't want to have to actually put new crews on or a new instrument. So 1 instrument is able to do that. So 1 customer I was visiting in Canada recently said, every job, whether it's been asked for or not, we turn the scanner on at lunch, we scan the job and we have a deliverable for when the customer wants to come -- for a 3D point cloud. So again, this innovation is helping to drive the -- this replacement cycle and increase the addressable market.

Key thing about Geospatial is, we provide -- this business is highly leveraged by other parts of Trimble. We provide the scanners that our buildings division is using for scanning the buildings. We provide the total stations and GNSS receivers, that you see sitting out behind the excavator, as well as even in agriculture, the real-time kinematic surveying systems are used in land leveling for water applications.

So the Geospatial business, again, core business across the company leveraged across many aspects of the company.

Software. This is an area that's -- it's very exciting to all of us, people in my group. We're a bit unique in high-technology companies that I've worked at and have visited. When you go upstairs, and if you were to go upstairs and see the upstairs, you'll notice that a lot of the cubicles have a unique feature that's a little different than Silicon Valley. There is dirty steel toe boots in almost every cube. People upstairs are very, very comfortable working in their domains. There is a lot of licensed surveyors, professionally accredited Geospatial professionals. And what they do is, they take that domain knowledge and they build that into our field and office software, which again, that's a great advantage for our customers and it provides a -- Rob uses a great term here, competitive mode for us when it looks at low-end GNSS providers and other competitors that are coming at us, they don't have that domain -- decades of domain experience like we have here in Colorado, at our software development facility in New Zealand, in Danderyd, Sweden, where we're building the SX10, there isn't that level of domain that's integrated into the software.

The other thing, and I've hit on this a couple of times, but it is very important. In the past, if you are a surveying and engineering firm and you're running a UAV crew, you're running some mobile mapping systems in a van or on an ATV, you've got a -- and you've even got traditional crews out with instruments, you might have 3 or 4 different office software products. What we've done is we've integrated all of that into a single platform called Trimble Business Center, which we've used for Geospatial as well as for buildings. So customers can process all of that data. And what's really interesting is, it's evolving to the cloud. We're moving more and more of it to the cloud offering micro services so that our customers can use the cloud for that. I'm going to give a specific example of 1 customer that's seeing considerable benefit from that.

I talked about autonomy. This is an interesting -- I like this chart. This is really showing the sort of the stages where the autonomous vehicle markets are at right now. We have 2 areas where we're participating. When I look at the autonomous vehicle opportunity going forward, I believe there's going to be 2 aspects of it. Roadside infrastructure, which is going to need to be very precisely mapped. Our mobile mapping systems are extremely well positioned for customers to take out and precisely map all of the infrastructure that the vehicle's going to need to operate: where are the bridges? Where are the traffic lights? Where are the guardrails? Where is the center line of the road? All of that needs to be precisely captured.

And then the second area that's going to be is our positioning and our orientation technology, which is going to be used on the vehicles as well as our correction services to very accurately position that vehicle inside that critical infrastructure. And you could see right now with our highly accurate inertial systems like the POS LV and POS LVX. We are participating in the test and development phases, along with many of the automobile manufacturers and suppliers. And that'll be something we move into when -- as we move into more of a production phase as that market opportunity matures.

Emerging markets. They're a large area of focus for us. We are -- again, I had mentioned before, much greater addressable growth rates -- addressable market growth rates. And what we're doing is, we're not taking solutions from North America or Europe and moving them into the emerging markets, we're developing fit-for-purpose solutions. For example, with our joint venture with Nikon, what we're doing there is, we're developing this new line of mechanical total stations. These mechanical total stations, they are the workhorse of the surveyor in the emerging market. We've

developed those product with a margin that allows us to participate in the emerging markets. So again, we can go in with fit for market pricing and we have a distribution network that can get right to the customer and help them make decisions about that.

We're leveraging a dual brand strategy with both Nikon and Spectra brands. Those are the brands that are very popular in many of the emerging markets. However, Trimble is the aspirational brand. So what we do is, we use the same software so that customers could start with 1 brand and then move up into the aspirational brand Trimble, and not have to leave their software workflow.

I talked about a case study, I wanted to give 1 case study, I think we'll all be doing that today. This is a -- one of North America's largest surveying and engineering companies. And what we've done with them with our cloud-based solutions, is so critical to them, they asked that their name not be used. They actually view it as a competitive advantage. What they wanted is, they have survey crews that they're running on the Eastern part of the country and the Western part of the country, hundreds of crews. They wanted them to all have uniform field procedures. They wanted all of the data to come into the system in a uniform manner. They wanted the data to be checked, quality to be checked. And they wanted to automate a lot of these repetitive tasks and set up alerts.

So what we did is we set up a cloud-based system for them to transfer the data between offices and all the disparate field crews where they're out in the field, and then bring that data back in, ensure that it's been checked and then put it back into the system, and with the whole goal of very quickly being able to give high-quality data to the people who need to make decisions with that data.

So this is an example of -- there's a lot of hype around the cloud. And surveyors adopting technology in the survey industry is not particularly quick. But this is an instance where a surveying customer was able to see the benefit of a cloud-based solution.

Okay. The addressable market. You're going to see this slide throughout the day here. And we talked a little bit about the fact that the majority of that addressable market right now is on the surveying and mapping side, but we've got much greater growth rates in the emerging markets and in autonomy, which is why the innovation around autonomy and our emerging market strategy are such important growth drivers for us. That is why they are 2 of the 3 strategic growth initiatives that my team is completely focused on. And this is going to allow us to grow at a faster rate than the rest of the industry and our competitors, as we've demonstrated recently with things like the SX10.

This is a chart you're going to see throughout the day here. And if you think of this in sort of 2 horizontal tracks, the low technology penetration is essentially where the product gets involved. And finally at the geographic penetration is where our market strategies or our geographic strategies are involved. So if you look here in the upper left, no surprise that optical GNSS receivers, GIS products we've been selling for a couple of decades now have a high degree of penetration. However, when we introduce a new category of product, something that the market wasn't expecting, our competition wasn't expecting, we reset what those penetration rates look like. Same thing in emerging markets like autonomy where our initial technology is really taking off and it shows better -- much better growth rates. Down in the emerging markets -- down in the geographic penetration as well, similar story. In the developed economies, close to 75% with the penetration. However, much better opportunities in emerging markets where we are focused.

So if you take sort of the network effect of this transformation from a hardware business to a very much a hardware-software business, the importance of transforming the physical world to a digital model, and then the integrated offerings we're talking about, you could see that this is a -- this leads to a strong growth opportunity for the Geospatial business.

I'm going to spend just 1 minute or 2 here because I'm getting close on my time. Fortunately, Doug and Steve were a little bit under, so Rob won't beat me back too badly here. Our reach is very important to us. I mentioned about 200 distribution partners, Trimble-authorized distribution partners out there in the world, many of them are adopting a new branding. They're moving towards the AllTerra brand and that's going to be positioned much like SITECH and Vantage so that anywhere in the world you can know who the Trimble distribution partner is who can help you there.

A couple of key things in the joint ventures. I mentioned Nikon Trimble joint venture, very important joint venture for us, and that provides very good distribution partner inside Japan for all the Trimble solutions plus they develop this market-leading line of mechanical total stations, which we could take into emerging markets around the world as well as many other markets.

The other logo there, unless anyone speaks Russian in the room, that is Rusnavgeoset. That is our joint venture in Russia. What's really important there is, this is a local distribution partner for us inside Russia, also offers us an opportunity to brand and localize solutions inside Russia for the Russian surveyor. The middle is 2 new business models we're working with in Geospatial. The 1 on the left is something called Catalyst. And what that is, is that's a screenshot from one of our distribution partners and what you can do there is, if you have an Android phone or if you've got a crew of about 10 utility companies that are using Android phones for capturing data, what you can do is, you can go onto that website and you can activate licenses on a recurring basis, on a monthly basis for those crews. Let's say you're running 10 crews in Canada through the spring and fall, but you want to bring on 50 in summer when the weather is nice, you can actually go onto that website and you can activate those services on a monthly basis. And then they can go out, deploy those on their Android phones, go out and capture data. Fall, when the bad weather comes -- I'm looking at Darryl from Calgary -- fall when the bad weather comes, you could spin down to 5 to 10 crews. And then, again, so it fits the way that our utility customers want to work, and it gives our distribution partners and the Geospatial business a strong recurring revenue model.

Other 1 to the right there is Trimble Exchange. This is an eBay marketplace, certified preowned. There's currently millions of dollars of used and demonstration survey equipment being sold on eBay. And so we're participating in that with the Exchange, where customers can trust that they're getting Trimble technology on a store that's backed by us.

Interoperability, very important for this business. Customers want to make decision with the data that's been captured by our customers. And what they do is, they want full fidelity through their workflow to customers like -- companies like Autodesk, Esri, Bentley, so we have a lot of interoperability and strong relationships with those customers -- with those companies to ensure that there is fidelity with -- across the workflow.

Finally, if you remember 3 things, that there is a large, global opportunity for the Geospatial solutions. We have an ecosystem that's hardware, software, positioning services and distribution partners. And we have an extensive go-to-market that provides the reach there. So again, this all adds up to a very bright future for the Trimble Geospatial business. And much like we hand the data off to our construction colleagues, I'm going to hand off to Roz Buick from Buildings and Infrastructure, who is going to present on her business.

Roz D. Buick - *Trimble Inc. - VP*

Good morning, and welcome to Trimble. Hi, I'm Roz Buick, and I'm Vice President of Buildings today, and previously ran civil infrastructure franchise before that. I've been with the company 22 years, this month actually.

Trimble is transforming the full life cycle across both buildings and civil infrastructure. We're delivering software, hardware and services across the entire life cycle from plan to design to engineer to estimate to fabricate and construct and on to facility or asset management. We do it by modeling and relating a digital model to the real world. And these models enable workflow transformation. And we impact many hundreds of billions of dollars in capital construction programs as well as touch millions of users with our technology.

We focus on building the business around end-user solutions because giving them the real value is what's important. More than -- sorry, 95% of the business is sold to customers both direct and indirect channels, and meet their needs in the mixed fleet environment that they operate within, which means a mixture of brands, both machinery, equipment, technology, et cetera. We deliver large productivity gains within tasks and across systems.

Our technology innovation continues to drive our growth, and we are today in this buildings and infrastructure segment, more than half of the business is in software, services and recurring revenue. And we're positioned in a very large addressable market with low penetration and attractive adjacencies. The business at a glance. You can see the large addressable market at $17 billion and less than 33% penetrated. Our 2017 revenues are $829 million, and revenue growth that year was 12%.

Non-GAAP operating margin of 21.2%, and the reporting segment is about half infrastructure and half buildings, just over half the business in North America, the next biggest region Europe and U.K., and Asia Pacific is the next biggest region.

About 1/3 of the business is software and services, 1/3 is recurring revenue and 1/3 is hardware. We're very end-user focused as I mentioned, and only 5% of our sales are actually going through OEMs directly. And our go-to-market method is about 0.5 direct and 0.5 indirect through channel partners.

So the construction industry is transforming. It's a multi-trillion dollar industry and as a sector, it defines the GDP of countries. So it's big and important. The pressure to urbanize and to make all corners of the world accessible, demands that we build more buildings and more infrastructure, but we needed to be doing it more efficiently, more safely, more sustainably and ensuring every last dollar is used effectively.

And yet today, we know that most construction projects are delivered late or over budget. And there is much waste and rework. And inefficiency is driven by a siloed, multi-stakeholder environment wherein communications, prior planning, information handover and collaboration are poor. And yet construction workers are undergoing a major change too. It's an aging workforce. So the staff are retiring and literally decades of experience is walking out the door. And there's just not enough young skilled labor entering the market. At the same time, technology has matured to a point of ubiquity, scale, price point and capability that enable the ecosystem challenges to be tackled, precise positioning BIM, offsite manufacturing, cloud, machine learning and bandwidth, all out the industry is ripe for change and it's an incredibly exciting time to be in this market.

Our strategy is to deliver a connected construction portfolio that integrates workflows and stakeholders. Similar to our Trimble businesses, we transform the workflows by modeling and relating digital models to physical world realities. These models of real-world context can let you plan better, execute with more precision and mitigate faster to reach better outcomes. They also enable more intelligence and automation, pre-positioning us for the mixed wave of information technology in machine readability, full process automation and machine learning.

The inputs to our connected construction transformation are the resources it takes to do construction. Mixed fleets of machines, vehicles, tools, labor, and most importantly, our technology around interoperable, constructable models. The outputs from our transformation are significant game-changing improvements in task and system productivity as well as improvements in quality, safety, visibility and sustainability.

Our portfolio, as a connected construction portfolio, consists of 4 major interoperable solutions: First of all, constructable model workflows; field workflows; owner solutions; and enterprise construction management. I'm going to talk through each of those.

But first of all, let's talk a little bit about our background philosophy to tackling this ecosystem. To connect construction, we must serve the entire life cycle. So we understand the full set of workflow dynamics and vernacular across many personas and the key drivers of project success. The life cycle we serve spans planning, feasibility, design and modeling, engineering, estimating, materials planning and procurement, scheduling project management, fabrication, site delivery, on-site construction, labor and equipment utilization, and finally, asset and facility management.

We deliver world-class software, hardware and services that integrate in various ways to transform across these workflows. So why is it we think we can transform this industry? Firstly, our life cycle depth and breadth drives domain knowledge into our organization. We simply walk the work. So we understand all facets of the project process and pain points for all trades, professions, building materials and field ops. And it enables us to help our clients better integrate, automate, coordinate and reinvent to an optimized process.

Secondly, our inherent behavior as a company is to innovate. As demonstrated over the years, we leverage our armory of positioning, communication and software to really game change the way customers do their work. Thirdly, is our unique constructable approach to BIM, which enables us to drive actionable workflows downstream, and I'll talk much more about that. Fourth, we are very intentional in our approach with make and buy strategies. While we span the continuum, we focus on areas that truly drive project delivery success for clients. And last but not least, we have business scale and global reach with incredibly important local teams that sell, support, train and localize our solutions.

Now back to the portfolio with 4 elements: First of all, Trimble constructable models transform workflow. Our models take you beyond the design phase and generate actionable workflows to improve estimating, scheduling, logistics, fabrication, prefabrication, construction and so on. These models are high level of detail 3D BIM models, detailed down to the last bolt, concrete rebar tie, electrical cable tray and cable run, or even volume of earthworks to be excavated or backfill to be laid.

These models are pivotal differentiators for us in the markets, and to build solutions enabling constructability, you simply have to have deep domain. Our design modeling software and our building content libraries, housing more than 30 million models and components, enable our customers to efficiently build constructable models and control the downstream workflows, including direct links to supply chain.

Trimble constructable models actually deliver blue-collar BIM, and this is what the industry desperately needs. Instead of conceptual 3D BIM models by white collar architects and engineers, our Trimble constructable models enable owners, architects, designers and contractors to better coordinate, passing on the key information all the way downstream to the contractor to actually do the work.

Great project managers focus on controlling critical path elements of any project. And so we focus constructability of our workflows and materials around the largest impactors of project delivery. Hence, we are the world leader in control, automation and utilization of heavy equipment on job sites. We are the world leader in structural steel, concrete cladding, fabrication and specialty trades. And we are the world leader in content for building product materials to design, estimate and procure more efficiently.

Second part to the connected construction portfolio is our field workflows. Construction is done outside, and in 3D, so why don't we let everybody enjoy that? We build on our pedigrees in survey construction and machine control, connecting the office to the field and automating the doing of the work: the tool, the blade, the bucket or coordinating the worker. And then, we automate the capture of progress to plan to the constructable model plan and monitor its progress over time, what we call production tracking.

Supervisors and inspectors can use us to do quality assurance. Underpinned by constructable models and mix of software, hardware and services are the conduit controlling the field proceeds tightly, and greatly improving the site's productivity. And these models are transferred to the field on a variety of media: tablets, smartphones, HoloLens or in-cab displays using specialized software to meet persona needs. From site supervisors to machine operators to plumbers, we cover them all and we vary our software in vernacular, workflow, accuracy and price point.

We provide technology to manage labor, equipment and materials with telematics IoT applications on-site. And what this all means is, unskilled labor can walk onto the site with confidence, while powered by Trimble field solutions. To illustrate this, an HVAC contractor needs to install drill holes for the hangers on HVAC ducting. We can give them 2 to 3 millimeter accuracy or 1/8 of an inch, when they drill those holes, much better than the normal method with tape and string line.

We can control a dozer blade down to 5 millimeters. And so we are transforming field workflows with connected construction. The third and fourth parts of the connected construction portfolio, I'll talk to now, and within the owner and contractor, project management and controls realm, we are joining forces with e-Builder and Viewpoint, to achieve an even greater fit of real-time connections from constructable workflows to owner and contractor, project and business management process.

We quite simply now have the most comprehensive connected construction ecosystem.

Stakeholder needs vary significantly and so too is the case in project management. So we acquired the capability to serve all project needs very precisely. e-Builder is the most advanced and proven capital program management software for owners and is a pivotal lever to the industry's transformation because owners are increasingly sending the requirements on to contractors as to how their projects should be run.

Serving North America today, e-Builder brings serial owners to Trimble, with huge potential to leverage our constructable workflows as well as our reach to local and international markets. And together, we're actually raising the awareness of connected construction, enabling more efficient real-time dashboard metrics, statusing and payment cycles. Our goal to giver is on-time and within budget construction, wherein the owner and the general contractor have high confidence in their project, and in each other. With Viewpoint joining the team, our contracted customers can source the most complete end-to-end construction management solution to run their business, their project and their field crews. And they're optimized at serving the small, medium, large contractors across civil, general contracting and specialty trades. Viewpoint customers seek a one-stop shop for their business management solution and Viewpoint's winning office team and field combination synchronizes the job cost modeling across the contractor's enterprise and, of course, dovetails with our constructible field workflow. At the most fundamental level, we are connecting construction and eliminating the disconnect. Our portfolio delivers system-wide productivity across people and process. Our deep understanding of all the ways that workflows are performed means we understand pivotal connections. For example, we connect the major stakeholders -- owners

to general contractors to self-perform subcontractors or specialty trades. We connect departments within the contractor's business by synthesizing information across designers, estimators, schedulers, project managers, field supervisor, field crew and the back office. We also transform how building product manufacturers and their distribution outlets can serve the contractor on their jobsites. And of course, we synchronize office and field operations, leveraging constructibility. In sum, our strategy eliminates the disconnect and together with e-Builder and Viewpoint, we have the most comprehensive connected construction ecosystem.

Trimble Connect streamlines coordination and is a key solution for us. It's both an application and a development platform with a rapidly growing user base. Today, more than 1 million subscribers and more than 60 platform integrations. It enables us to integrate across our solutions to better serve stakeholders' needs particularly at the key point of much-needed coordination. So it's delivering multistakeholder value and acts in these ways. A collaboration app for project data, doesn't matter if it is a PDF file, 2D drawings, point cloud, GIS data or models. A project data hub for information exchange and interoperability and the Connect is an extensible development platform for ourselves, internally or our partners. In effect, we are delivering a best practice for this industry across the lifecycle. And it's because of our deep appreciation of all workflows that allows us to deliver targeted productivity as well as coordination points to stakeholders, so they better coordinate, plan and mitigate. And yet, we do that while we respect and serve solutions for the unique needs of each trade and profession. Any technology transformation requires the alignment of process, people and technology, and our approach is culturally in sync with each set of players and because of our large market reach across all solutions, the connect platform empowers a much more automated reengineered lifecycle. So let's hear from some customers now, what their experience of our value is. Always best to hear from a customer's mouth. Beaver Excavating is a large Ohio-based contractor in civil with 600 employees and 110 pieces of heavy equipment. A big user of machine control, and on a recent road project with our new earthwork excavator product, with the new bucket automation that Doug mentioned, they found that operators were 20% more productive and much more accurate. The site manager went on to say, "I am a decent excavator operator and I can tell you, I used to struggle to make a really good grade, but the new platform makes me appear to be an expert right away, which is critical when we see a personnel crunch in the industry." Rock Structures Utility & Excavating, on the other hand, is a very small Utah-based contractor with 7 staff.

The owner is very happy with the new system, seeing 40% to 50% faster earthworks, improved accuracy down to 0.3 inch and a reduction in over-excavation, driving 50% less backfill. Barton Malow is an innovative general contractor headquartered in Michigan with 13 offices across Eastern and Central U.S. They're #35 on the ENR top 400 list and about $1.8 billion in revenues. They use Trimble Tekla Solutions to help them achieve efficiency goals with self-perform construction. Senior Vice President says they achieved a 15% productivity improvement in their rebar detailing and fabrication. North Mechanical Contracting is a full-service mechanical systems provider in Indianapolis, designing, building and maintaining plumbing, piping, HVAC and building automation systems. Using our SysQue design and takeoff estimation software, with our building product content libraries, they performed 90% of their piping off-site, reducing footprint and labor investments by 50%. Their quantity takeoff, or estimating work, was completed in a quarter of the time compared to old methods, and their overall accuracy drove 0 change orders on the job. Due to all these advantages, North Mechanical estimates a project savings of 10% of that equals about $1 million on one job alone. And finally, Haselden, a local Colorado-based general contractor, using our cast-in-place concrete software, their errors in concrete estimating and quantities were reduced to almost 0, allowing them to budget and purchase just the right amount and reduce waste by 33%. Inova Health System is an e-Builder customer in Fairfax, Virginia. In an $850 million capital program, they achieved project savings of $100 million by creating transparency in project cost, better management of contingency and fewer changes. Contractor application for payment was cut from 29 days to 9 days, and invoice processing was reduced to less than 3, which earned them a reputation of a fast-paying owner and an increased competition on their projects. So how big is this market? We think it's big. It's $17 billion big, and the components are, buildings construction at $8 billion, civil construction at $4 billion, and our newly expanded capabilities with program and project management with e-Builder and Viewpoint of $5 billion.

Our opportunities for growth stem from more technology penetration, selling task or system-wide value to the various personas and trades that we work in; geographic expansion, aligning and leveraging across our go-to-market teams; targeting larger accounts and particularly those that are becoming multidisciplinary, contractors becoming manufacturing, operations as well as design engineering teams as well as large architecture and engineering firms joining forces to offer construction management services; integrated offerings, of course, to serve multistakeholder coordination via things like Connect; and expansion of our recurring SaaS and subscription software models and our continued innovation that we do every day here. All up, we see our strategy in solutions enabling us to take a leader -- leading position here. And in particular, combined with Viewpoint and e-Builder, we're now at $1 billion in market traction, which we think is a significant leadership position across all our capabilities. All right. Overall, the penetration is low in this market, and we estimate it for the whole sector, 33 -- less than 33%. In all cases, the subsegments are underpenetrated, and less than 25% within this chart, except for civil infrastructure dozers and graders, at less than 50% penetrated, mainly

influenced by the North American and Australian markets, while the rest of the world, it's lower for those machines. And of course, globally, as you can see, program and project management market adoption in buildings and infrastructure is less than 50%. The excavators are a very large machine population in total and globally less than 25% penetrated and hence, there's big opportunity for our new state-of-the-art excavator system. As you look across our connected construction portfolio, our differentiated constructible and interoperable approach, our reach coupled with the market size, readiness and underpenetration, we believe we have a truly significant combination effect or network effect that's going to transform this industry to a new best practice. Our innovating -- we keep innovating, and it continues to be what we do at Trimble. We're always doing this to find new value for customers and a few recent examples you can see here, the new excavator grade control system, I've mentioned a couple of times, with a powerful Android display that rapidly allows us to build applications and now has an excavator bucket automation feature that delivers huge productivity gain. Lower left-hand corner, SketchUp software, it's all about making 3D easy for everyone, and today has more than 28 million unique activations per year.

They have recently delivered their intuitive 3D modeling capability via the cloud. Mixed augmented reality, you've seen outside, or you've heard talked about this morning, an incredible technology that's going to make it easier for more people to visualize the context of 3D models in the real world. And we've also recently launched a very powerful 3D Trimble world viewer and format into a number of our 3D software and hardware platforms. What this does is it allows us to handle very large detailed models very efficiently. And this picture shows you the Olympics Stadium, or at least it was meant to be an Olympics Stadium. They built it before they were awarded the Olympics in Azerbaijan. So now it's going to be the FIFA Euro Cup soccer facility in 2020. Our market reach is unmatched from a scale and scope point of view. We've always worked hard to drive tailored, go-to-market strategy for each business we're in, and partnering with our -- with leaders to provide more value to our customers. Today, we have about 500 direct sales personnel, and about half of our business is going through e-commerce storefronts. We have joint ventures with Caterpillar and Hilti, who are 2 leading players, clearly, in infrastructure and buildings respectively, and are key in how we innovate technology-enabled machines and tools. We have a huge number of OEM relationships, and we continue to work very hard to maintain those. We also have 120 dealer partnerships across SITECH and BuildingPoint serving civil infrastructure and buildings, respectively, who sell and service our solutions in their local trade areas. As you can see with all the OEM brands there, it's a mixed fleet environment. In fact, we say, every machine fleet is a mixed fleet. And -- so you really have to serve the customers' needs. They want technology across all of those machines. Even within software, it's actually a mixed fleet. So to serve customers, we must adhere to data standards, IFC and buildingSMART, for example, and we must push for robust data interoperability and APIs with key players, including Autodesk, Nemetschek, Google, Bentley and many other players in business management software such as SAP, Oracle, Salesforce, Workday, et cetera. The connected construction strategy drives a network effect with unmatched ecosystem coverage. We have an incredibly strong market leadership relative to our ecosystem's scale and reach into the market, coupled with our differentiated digital to physical or constructable model approach. Just for example, 500,000 machines have Trimble technology onboard. More than 10,000 field technology customers are using Trimble Field Mobile Solutions, and more than 5 million customers are using our software in this industry. More than 250,000 projects worth $300 billion in capital programs are being managed by our software. This customer touch lets us raise awareness, connect, cross-sell and transform workflows within our vision of the connected construction realm. Plus, we're building project productivity intelligence and accumulating this but to help -- that will help customers achieve an even more optimized cost of construction and ownership for these built assets. In closing, we transformed the entire lifecycle across Buildings and Civil, we're focused on solving the end users' needs in a mixed fleet environment, we deliver game-changing levels of productivity across tasks and systems. We continue to innovate and drive that growth. And we're positioned in a very large underpenetrated addressable market with strong growth expected. Thank you and it's my pleasure to now hand over to Ron Antevy from e-Builder.

Ronnie Antevy - *e-Builder, Inc. - CEO and President*

Thank you. Good morning, everyone. As Roz mentioned, I'm Ron Antevy, I'm the CEO of e-Builder, and I'm proud to be a part of the Trimble family now for just about 4 months here in a couple of days. So I'm going to just take a couple of minutes and just share a little about e-Builder, what we do, and some metrics and things about the business. And then some of the opportunities that we see in partnership with Trimble and Viewpoint. So what is e-Builder? We are basically a platform for managing construction projects. And you can see the yellow circle, we cover the entire lifecycle from early on planning, through design and construction and all the way through occupancy, then the operations of the facilities. So we are uniquely focused on the facility owner. About 15 or so years ago, we pivoted and decided we were going to focus specifically on the owner, it's really an underserved market, in general, and the owner -- when you think of the facility owner, these are what we call serial builders. So they are spending $100 million or more every single year on construction, managing hundreds of projects. And in fact, we have multiple clients that spend upwards of $1 billion a year. So they have a lot at risk and a lot to lose. And really they don't have good systems to manage their construction process. Most

of the industry is focused on serving the needs of the contractor or the architect or folks in the field. So we've actually taken the tack of focusing on the owner, which is at the top of the food chain. We -- for all of our clients, we've been able to improve their project outcomes with our systems. So -- and that's really what we are focused on, it's really reducing cost, shortening schedules, improving quality. If you -- when you heard the story there about Inova, how they saved $100 million. You know it's a better than 10% gain just by improving visibility into their projects and accelerating the payment process. So lots of opportunity with the owner and that's sort of what we're focused on. If you look at most of the market today, owners are not using any systems. Believe it or not, there are owners out there spending hundreds of millions of dollars on construction, and they are using Excel spreadsheets, or they're using antiquated systems, they're using systems that they've built on their own to try to manage these projects. So we're giving them a complete system to do that. Little bit of history about the business. So we've been in business for 23 years. The business was actually my brother's master's thesis. As Steve mentioned, domain experts -- we consider ourselves domain experts. I'm a civil engineer. My brother John is an architect. We grew up in the construction industry. And we -- and John got a degree in architecture and realized he couldn't make much money as an architect, so he went back to school, got a master's in construction management. And if you can remember back this far, this is 1994, and he wrote his master's thesis on taking the internet, using the internet to improve communication and collaboration in construction. So we were, way, way, way ahead of our time, probably too far ahead of our time, in hindsight. We were SaaS before there was the word SaaS. We were cloud before anybody talked about the cloud. We would sell back in those days to contractors and would try to sell our application and spend half the time educating them on what the internet was. It was that early along. But we've really been -- we really understand cloud and software-as-a-service, I guess is the headline there. Grew the business slowly. In the first 10 years, we struggled to find sort of our market fit and our product fit. But we got that together. We started to focus in on the owner, as I mentioned, and then we put a sales and marketing execution model in place, a strong model in place in the early 2000s. And you can see sort of the second piece there is when we started to grow. We've been growing at least 25% for over a decade. That's organic growth, and it's been consistent, and we expect that to continue this year and into the future. Today, if you fast-forward, we are the leading provider of owner systems in North America. We pretty much -- we like to think we were -- we had a big hand in creating the space. There wasn't really anybody serving that market before we did. Just a couple of statistics to go over with you here. So end of last year, we did about $53 million in revenue. As I mentioned, we grow at about 25% a year, and we are able to do that profitably. So we are growing at 25%, while maintaining a healthy margin EBITDA of 25% or more every year. Our net retention is about 105%. So even if we sold no new clients, we would still continue to grow each year, our existing user base grows in revenue. And of course we are selling many new clients. Just since the acquisition, we've landed over $8 million in new bookings, many, many new very high-profile clients. It's -- just to touch on our clients. What is unique? These are all very, very large owners. If you were to go into any market, probably the hospital you visit, the road you drive on, the airport you fly into, the water you drink, these are all systems, infrastructure and buildings that are being managed by e-Builder. We are based in Florida, South Florida, we're about 230 employees. And so today we're about 2/3 of our revenue is SaaS revenue with the balance services revenue. And as Roz mentioned, there is about $300 billion of construction that's running through e-Builder today. So again our owners are very large, very influential. Each of them is managing hundreds of projects. So over 250,000 projects in e-Builder today with 100,000 users. So this creates a huge opportunity, as we think about Trimble and Viewpoint and what we can do together. The 100,000 users incidentally, 15,000 of those users are actually our owner clients, the other 85,000 are the contractors and others. So great opportunity to sell into that market. So when we think about growth opportunities, really it's 3 areas. First is extending our reach. e-Builder as a stand-alone has wanted to go into the international market. We never did, we can do that now. We have the Trimble business infrastructure to do that. So that's one opportunity. There's also customers that we can reach that way. And then our owners can influence the spend and the tools and the types of things that they're requiring contractors to utilize. So e-Builder, the tool is also able to be utilized with large general contractors, there's an opportunity with the Viewpoint tools and other Trimble tools. So that's also an extension of our reach that way. The other is this unique value proposition that we will have by connecting Viewpoint and e-Builder and Trimble. So Roz talked about connecting the office back to the field. If you think about how things work today for an owner, sometimes it takes weeks, if not months, before an owner actually knows what's happening in the field that is impacting the cost of their project or the schedule of their project or some other important aspect of their project. So by connecting e-Builder back into the Trimble field tools, many of the tools that Roz mentioned and as we talk about Viewpoint, we have the ability to provide real-time visibility for our facility owners into what's happening out there. And that's not to be underestimated, it's a very difficult thing for owners to get visibility. I've been in the industry for over 20 years. They've talked about trying to get that and it's very hard to do. So it is a unique opportunity that we bring to the table. Now as we bring more visibility for these owners, they're able -- and they have more control over their projects, they can pay faster. So that was the example with Inova. Just by being able to pay their vendors faster, they have more competitive contractors coming to look at their jobs, and they've been able to reduce their costs on their projects. We have seen this phenomenon with many of our owners. So that's another great opportunity. And finally, it's sort of the same thing, but if you take what we're talking about doing with Trimble and you add Viewpoint into the mix, that is truly exciting for me. Many of our clients that are working with contractors are Viewpoint users. They are Viewpoint contractors. And Viewpoint has 8,000 customers. So the concept of connecting between what Viewpoint is doing and what e-Builder is doing and what Trimble is already doing, and to have this one system, again,

it's something that is sort of the Holy Grail in the industry that's been talked about for 20-plus years. It's not a technology problem anymore, it's more of a business problem, and I think we have a unique way to solve it. So those are the opportunities for us for growth. And with that, I'm going to introduce my colleague, Manolis Kotzabasakis, from Viewpoint to talk a little bit about his business.

Manolis E. Kotzabasakis - *Viewpoint, Inc. - Chairman and CEO*

Okay. Thank you, Ron, and thank you for -- to the Trimble team for inviting me to discuss Viewpoint and the tremendous business opportunity that we have ahead of us. I cannot tell you how thrilled I am to soon be part of the Trimble family. Because there is a very, very unique business opportunity ahead of us that we can capture together, better and faster. So this is perhaps the most exciting time that we have ever seen in the construction industry ever. Maybe I can explain a few things here. The productivity gap in construction versus other industries is tremendous. In the United States alone, the productivity in the -- of the rest of the industries is twice as large -- twice as big as in the construction. So there's an opportunity to improve not only time to completion of a project, but also reduce budgets and money being spent. And you've heard throughout the last hour or so examples of opportunity of improving the efficiency of construction. So -- and this transformation that the industry is looking for is actually happening right now as we speak. It's a bit of a quiet revolution that is happening, but contractors, our customers for Viewpoint, are already seeing that use of technology, it's not optional anymore. It has become a fundamental element for them to stay in business, to continue to be competitive and to deliver what is expected from the different projects that they have. So there is something that is happening. We have seen this in other industries. We all know how other industries from photography to music, they got transformed, and this is the time for construction. And the key reason for that is the many different technologies we have talked about so far that they are coming of age and they are coming together as well as the business opportunity as well as the demands from the owners to deliver projects so they are more efficient and on-budget and on-time and all these things are coming together, and we are seeing something very, very unique. A little bit about myself. I have been with Viewpoint for approximately 3 years, just less than 3 years. Before that, I spent all my career, all my 25-plus years with 1 company called Aspen Technology, who became and is today the leading technology company for the process industries. I've been an executive team member for that company for most of my time there. I had different positions from the sales organization -- leading the sales organization to just before I left being the Chief Technology Officer. We -- I'm referring to that because I see a lot of similarities between the world that my previous company served, Aspen Technology was in the oil and gas and chemical industry what is called -- what we call process industries and the construction industry. What I'm seeing in the construction industry today is very similar to what happened in the process industries for 5 -- 15 years ago. The digitalization journey started and everything changed, everything became different. And Aspen Tech led the transformation and I was a proud member of that, and I came to Viewpoint to be able to do the same in construction. Take a company and transform it to SaaS through integrated offering and bringing a number of technologies together. And we have done that the last 2 or 3 years, and I'm going to give you some information on that in the next few minutes. So let's first talk about what Viewpoint is all about. What do we do? We are focusing on making it simple for our customers, which are general contractors and subcontractors, to use technology to improve their productivity and the productivity is being measured mostly in 2 ways. One of them being delivering projects on time or even faster, the other one, delivering projects that they're on budget or even below that. The third one, that we don't talk as much, of course, is safety, but that's another important consideration. Today, their work process, without using technology, is quite complicated. We have a situation where if there's a change order, for instance, in the field because let's say, the precast beam, the precast column does not exactly fit with the steel beam, then there is a situation where there's a lot of communications between the superintendent in the field, the project manager, the subcontractor, the owner, the architect, the safety engineer try to come together to make a decision of how they should modify that discrepancy between design, how it was designed and how it looks like now. A lot of complicated binary interactions. These are not optimized, and that leads to problems; overrunning and more money being spent. At Viewpoint what we did the last few years, we brought technologies together in a simplified way, integrated, natively integrated, and offered as one suite office, team and field. Make it simple. Office means the people who are working in finance departments and the other project managers. When we talk about team, we're talking about a group of people, contractors, subcontractors, architects that they work together in order to deliver a project. And finally, field, which are the people who are doing the real work and they are using the heavy equipment and other pieces of equipment to deliver what is they are supposed to deliver. So we are bringing these technologies together in one integrated suite. It's there. It's available today. It's SaaS-based. We have made the transformation. Its cloud-based. And that's what we're delivering, helping our customers to improve their productivity. Just quickly about Viewpoint. This is very similar slide to what some of you have already seen when the acquisition was announced about a month ago. We are also approximately 40-year-old company, something common that we share with Trimble. I am the second CEO of the company. But the company really grew, mostly the last 5 or 6 years. And next year, we are expecting to be over $200 million of revenue, over $50 million in operating cash flow. We have -- a significant element of our revenue is recurring revenue, more than 70%. We have 420,000 users and you can see the rest of the statistics there, but what you're seeing here is you're seeing a tremendously fast growth in our subscription revenue and transition to SaaS. And this is where I personally

have implemented the lessons that I learned from my previous company into Viewpoint and that's why we have seen this dramatic increase in both profitability as well as top line growth at Viewpoint. And we are the only company that brings together office, team and field, the only company that natively brings together in an integrated way. What are the growth opportunities together with Trimble? And as I said earlier, I can't wait to start working together, hopefully in the next few weeks to achieve those. We can achieve international expansion, which we have found hard to do in stand-alone. We can also integrate technologies from Trimble very quickly into Viewpoint and this way deliver value to our customers. On Friday afternoon, I was talking to one of the customers that Roz referred to, Haselden, a local Denver contractor. I was talking to their executive team about our technology and they were very, very excited to know that we are going -- or we're bringing together Trimble technologies together with Viewpoint so that they can do their work much faster and much better and much more efficiently and bring together the field technologies from Trimble, the labor, the equipment, the estimating technologies together with Viewpoint. Finally, what Ron mentioned about bringing together e-Builder with Viewpoint, it's another critical element and strategic directive that we are going to work together to do that because bringing the world of owners with contractors and subcontractors is going to be transformative and pivotal to the future that we can see in construction going forward. So to summarize, why Trimble? Because we want to accelerate their vision. We have a great cultural fit, and based on my own personal experience, what I've seen before, it's amazing what you see when an industry transforms. Construction is going to transform. We are going to lead it here with Trimble because of our size because of the great technologies that we have together, and I'm looking forward to have the opportunity to talk about these things sometime in the near future. Thank you.

Darryl R. Matthews - *Trimble Inc. - SVP*

Good afternoon, everybody or good morning, everybody. Excited to be here. I'm Darryl Matthews, and I look after the sector of Resources and Utilities. I've been with Trimble since 2015. I have 25 years' experience in agriculture and forestry. Previous to Trimble, I worked in the input side of agriculture for more than 20 years. We're going to review today the resources and utilities sector and then we're going to dig deeper into agriculture and to talk about some of the things that we do in agriculture and give you a background on that.

Trimble participates from field to fork. This is unique when we look at other players. Trimble transforms the full lifecycle of agriculture. Trimble delivers productivity in tasks across systems like forestry where we're providing visibility to a log in the forest through to the transportation chain and then all the way through into the mill. That is relatively new in an industry that is low technology. That is really what Trimble does in the Resources and Utilities sector.

We improve productivity on hundreds of thousands of farms and 150 million acres globally. We focus on end users with greater than 75% of our revenue coming out of the aftermarket segment. We serve a mixed fleet market on a global basis. This is a segment that is growing as farms want to connect more equipment than just tractors. Farms today want to start to pull in their entire ecosystem. They want to pull in the haul trucks and the equipment that they're using right across their entire farm to move those grains to market.

Trimble has a diverse, global customer base with more than 70% of our revenue coming from outside the U.S. Let's do a quick review of the Resources and Utilities reporting segment. The Resources and Utilities has a total addressable market of $14 billion, with global penetration at less than 25%. The 2017 segment revenue was $481 million with a 21% growth rate. The non-GAAP operating margins are very strong at 28.5%. Revenue mix in the Resources and Utilities segment is predominantly ag with our emerging businesses in forestry and utilities.

Our geographic revenue distribution shown here is more than 70% outside of North America. And the majority of our revenue is in hardware with our recurring software and services revenue growth outpacing hardware and is greater than 40% of our revenue.

I often get the question is, Trimble is really a company in agriculture about guidance. And this is really what we wanted to share with you today, is that we have a significant growth opportunity and a continuing growth in our recurring software and services in our segment of Resources and Utilities. We go to market through 300 dealers worldwide. And those dealers represent 75% of our revenue coming from the aftermarket segment and less than 25% of our revenue today is in OEM factory install. The agriculture industry is transforming, and I think you've heard this many times. We're seeing increased global food demand. Today we have 7.2 billion people on Earth with projections of this growing to 9.6 billion people. There will be 1 billion additional mouths to feed in the next 12 years. It's important that we start to address the increasing global food demand. High input costs. Input costs are changing. Corn seed costs have increased by 164% between 2006 and 2014. There has been a corresponding increase in yields with these improved genetics. Let me break that down into really what that means. A typical 50-pound bag of seed will seed 2.5 acres. 20

years ago that bag of seed would cost $50. Today, that 50-pound bag of seed that will plant 2.5 acres can be upwards of cost of $700 for 1 50-pound bag of seed.

It's critically important to a farmer that they precisely plant every seed and know where that seed is and put it into that field. That's really what's changed. Now that seed is generating significantly higher yields and having lower input costs because of the genetics that are there, like insect resistance and things like that, that it's allowed -- that's in that seed. So that's really what's changed in the industry.

The increasing seed cost has farmers wanting to place every seed, nutrient and crop protection product precisely. Food traceability is a growing consumer demand. Consumers want to know where their food is coming from. And it's those segments that when we start to tell consumers where that food is coming from, those are the segments that are segments that offer premium value to the farmer. Farmers want to figure out ways to target that segment and distinguish their product away from just being a commodity. They're very interested. Data and capability to show transparency to the consumer and to the processor is a way for a farmer to target and look at ways to get a premium out of the marketplace. Lastly, farm consolidation. This is continuing at a faster pace as land and equipment costs increase and require technology. Let me review this a little bit. On the screen, we have what has happened in Europe -- U.S., Europe and Australia in the last 17 years.

Significant farm consolidation is happening throughout the world. These are the major markets that we reviewed, but you can see significant farm consolidation. As farms consolidate, they become larger and more complex, requiring the need for technology. It makes sense as your operation gets bigger. Trimble's value proposition increases on farms as these operations look at increasing yields and reducing a per acre input cost. We target 725,000 farms globally for our software. Targeting farms that are greater than 500 acres in size, we are using mechanization, that's very important. And in the regions of North America, Europe, Australia, Brazil, Argentina and CIS countries we see farm consolidation continuing globally.

In the next few slides, we're going to take you through our Connected Farm and really what that means. Trimble's Connected Farms ties together fieldwork flows into a farm model, stored in farm management system, linking visibility to a supply chain. That is unique when you look at precision agriculture. Not everybody is crossing that entire portion of the ecosystem of how food moves in the distribution system today. Trimble connects tractors, implements and labor to create an interoperable equipment or an environment. Trimble connects the physical and digital world from field to fork. I've shared with you a picture or pictorial of the places that Trimble participates in the food chain system today. You can see that it's very broad. We're a company that's very well known for guidance, and most of the team doesn't recognize that we participate in a broad portfolio right across the food distribution chain.

Let me explain as we move into this, and I'm going to dig into each part of this ecosystem so that you begin to understand both the physical, the digital and then also, the last part, the farm physical -- or sorry, food system. Trimble [started] in guidance for machinery for more than 20 years. This established our connection to the physical world of the farm field. The physical world in the field is changing where farmers are implementing variable-rate technology. This requires more hardware and software tools. There's 2 things that you need when you move into variable-rate technology; you need a prescription that is generated out of a software solution; you need hardware that has the capability to apply variable-rate inputs as you move across that field. Those are 2 areas that Trimble participates in and is a leader in the global market. The Mueller acquisition brings variable-rate technology into our portfolio, moving us onto the implement where technology is rapidly changing.

What is happening on the implement today is that the implement is starting to control the activities of the tractor. It's starting to speed up and slow down the tractor according to the requirement of where you want to place that seed. It is starting to send signals to the tractor to say, "I need more pressure, down pressure so I can plant the seed down into regions of the soil where there is moisture." So you're starting to see significant improvements in technology on implements. Implements are getting significantly smarter, and there's a lot more brains going onto an implement. And that is a key area and a key contribution that Mueller brings into the Trimble ecosystem.

We also offer correction signals to 90,000 customers globally, where precise measurement is increasing, and what farmers are doing is they're starting to use correction signals down to 2.5 centimeter corrections. So what does that mean? You can guide an implement within 2.5 centimeters of a crop. That's particularly important when you look at organic farmers. Organic farmers want to take out weeds, for instance, that are sitting right beside a crop. If you're using precise corrections, you can guide and implement to within 2.5 centimeters of the crop and take out those weeds. That is a real contribution that correction signals bring to the marketplace in agriculture. And it all starts out of Ron Bisio's business, right? I think that's what we heard at the beginning. I guess there's an example of how it starts, right? Trimble puts a significant amount of technology

on the seed machines today. We put steering systems, a guidance or display on a tractor and that display tracks and monitors field activities and machine operations. We also put GNSS guidance controllers, and then Mueller brings into the system our Field-IQ or ISOBUS solutions that are attached to an implement. An ECU is an electronic control unit. It's really the brains that starts to go onto an implement. It allows for variable application of inputs. Put more here, put less here, put more here, put less here. Very similar to your printer at home in how it applies that paint across that piece of paper as you move across the field. This is doing that as we move across the field.

All of the field activities can be linked into the Trimble ag software. So you start to get as applied information into the software world. Connecting the farm in the digital world. Technology in the physical world of the field is connected through our Trimble ag software in the digital world. Farmers, agronomists and food processors utilize this software to build field-by-field prescriptions. Where they are applying input zone -- inputs zone-by-zone as that tractor or implement moves across the field. Farmers are challenged by many disparate systems which do not talk to each other between hardware and software. I think this sounds familiar to all of us. It's a big challenge on the farm today and one of the biggest challenge that farmers say when they look at implementing precision agriculture, is how do I get all the systems and all the pieces to talk? And that is what's unique in what Trimble offers. Trimble's ag software allows farmers to manage field imagery. It issues field alerts to possible situations in the field. It also offers variable-rate prescription building and finally, financial analysis of each field production unit. Remember, a field is the production unit for the farm, it's the factory for the farm and they need to understand and know what that field is doing for them.

Where Trimble is truly unique in agriculture is that we connect into the farm supply chain. Trimble works with food processors to manage identity-preserved contracts. Identity-preserved contracts are premium contracts that farmers sign, and they receive premiums for producing a crop in a particular way. How that processor has made commitments to consumers that this product is going to be managed or brought to market in a certain way. Consequently, they need a way to manage that. Trimble software does that with processors, and it makes that commitment all the way through to the consumer. We trace food products through the food distribution chain, ensuring quality is maintained at food distribution centers and at local grocery stores. That is truly unique to Trimble. We trace 2 billion products annually through our harvest marked tools from the field all the way to the fork. That is unique to Trimble. We do trace and track 2 billion products today, all the way from the field to the fork that hits your plate at home. Farmers are looking for ways to distinguish their products from other commodities. Farm compliance reporting and data are tools to help them do this and look for ways that they can target premium markets.

Let's really go back and review what our customers say about the products at Trimble. I will quickly move through these 3 slides, as these are in your handouts. Variable-rate technology offers 10% to 15% yield improvement with an 8% decrease in input costs. Our correction signals significantly reduce setup or conversion time for operators, allowing them to work longer in the field. Our guidance systems reduce time to complete fieldwork by 20%, and our Trimble ag software reduces data entry by 10%. Variable rate irrigation offers a 15% increase in yield when applying water according to soil types, applying more water on the sand and less on clay, to ensure that, that plant in one place is getting the optimal amount of water according to the soil that it's planted in. Through innovation, we improved the uptime of land leveling by 20%, allowing customers to complete more acres in a day. What do we mean by land leveling? Land leveling is where a farmer is leveling the land to ensure that when the water and irrigate that land that, that water flows across in an even uniform pattern across the field to water every plant that sits in that field. They're leveling fields before they go in and plant a field -- they plant or seed that field, they are leveling that field to ensure that the water rolls across that field in an optimum pattern. That's what land leveling is. It's a technology that we bring to the marketplace in the work that we do in GNSS.

The addressable market opportunity in Resources and Utilities is compelling. There's $5 billion opportunity in our agriculture and on-machine hardware. Another $6 billion of opportunity in our agriculture off-machine and software and services and then $3 billion of opportunity in our forestry and emerging utility -- in forestry and utilities in our emerging industries for a total of a $14 billion opportunity. We have attractive set of growth drivers in software and services, variable-rate technology. I talked about food traceability. And then the last part of this is in farm automation. Farm automation is a new opportunity as we face farm labor shortages. And we will discuss this a little bit further as I move -- go forward.

One of the things that I often get asked and often always -- is a key component that I get asked by this group is that Trimble is really a guidance company, and a company that does a significant amount of revenue in guidance. We do. And the opportunity to grow guidance is probably going to be limited by OEMs because OEMs are going to pull that in-house. Let me talk a little bit about that so you begin to understand the opportunity in guidance and what it looks like. Guidance technology globally is penetrated at less than 50%. Geography plays an important part in understanding guidance technology penetration. North America and Australia are the highest-penetrated markets at less than 75% penetration. So it's pretty penetrated in those markets. We see opportunities for increased penetration in Europe where it is less than 50% penetrated and the rest of the

world with less than 25% penetration. Guidance is also beginning to be equipped in less than 100-horsepower equipment. This significantly increases the number of machines, from hundreds of thousands of machines to millions of machines. Just to understand that as technology moves down in horsepower, you've got significantly more machines in the world to equip with guidance. This will take new and innovative products to address this low-horsepower market. So guidance today we understand very well, and you can see the growth that we're having in our emerging markets. We announce that each quarter where our growth is coming and you can start to see that guidance still has lots of opportunity for penetration in these emerging markets. And we'll continue to focus in those areas.

New territory for Trimble is in software, variable-rate technology and our Forestry and Utilities segments. Variable-rate technology is growing at a 15% cumulative average growth rate globally. Variable-rate technology requires on-machine equipment to apply inputs at different rates across the field, but it also requires a prescription, which requires information to be developed and synthesized within a software tool. It's important to understand that as variable-rate technology is adopted in the world, there is 2 drivers: technology needs to go on implements; and also software needs to produce a prescription to apply those products as we move across. Globally, variable-rate technology is less than 25% penetrated.

Ag software. Ag software in the U.S. is predicted to grow at a 12% cumulative average growth rate. Adoption of ag software is segmenting quickly as large farms begin to adopt software. Europe is a region where regulatory compliance is driving software adoption on the farm as regulatory bodies require yearly reporting on all field activities. Software penetration globally is less than 25% with significant room to grow.

In our emerging industries of Forestry and Utility, our Forestry and Utilities are new markets with less than 25% penetration. Forestry is a segment with low technology adoption, limited visibility on a log-by-log basis, and the maximizing of board feet per log at the mill is a significant opportunity for new technology.

We see less than 25% penetration of technology in Forestry and Utilities and a new significant growth opportunity.

Trimble has reach through our software and hardware, our digital and physical tie and our office and field tie-together, with a global opportunity where there is less than 25% penetration in these markets that I've just reviewed.

What has happened in our business since 2013 to 2017? Trimble's agricultural revenue is more globally balanced today than in 2013. You can see in 2013, approximately 50% of our revenue was coming out of the North American region.

Today, in 2017, 70% of our total revenue is coming outside of the U.S. So a dramatic change in our distribution of revenue coming into the business.

Different regions of the world are subject to weather and political impacts. Diversification is important in agriculture. That's what we've been driving in the last short while.

An example is the reduction in farm crop receipts in the U.S. from 2013 to 2017. You can see the dramatic drop. The European region farm crop receipts during this same period remained consistent, aided by European farm subsidies. So there is different political things happening in different parts of the world. Regional diversification benefits Trimble to grow faster as commodity prices improve. Our go-to-market is to continue to increase reach outside the U.S.

Let's talk about technology. Let's talk about innovation and where we're going in Resources and Utilities.

One of the key questions we get asked is about farm automation and about autonomy. We see farm automation or autonomy as a new growth opportunity for the Resources and Utilities segment.

For 20 years, Trimble has automated equipment. We see autonomy on the farm as a next phase in guidance. But we see autonomy very different than I think that you're getting represented by everybody else.

We don't see a tractor that works all day in the field and comes home at night and parks in the shed and has no interaction with an operator. We don't see that. And let me explain a few statistics around that and why we see that.

We see 3 steps to automation, to the adoption of autonomy on the farm and let me explain. Step one is the automation of equipment, which we've been doing for 20 years and we're well -- we've got a very strong history and skill in that. Step two is the automation of a work group where a grain cart and a harvest combine are communicating and working in a lead-follow relationship across the field. This improves productivity and safety with one operator located in one of the machines, effectively increasing that operator's productivity. We will introduce this in the next short while.

Step three, in the last green box, is we see automated workflows and tasks where equipment is communicating its status in the field. When it requires a refill of seed, fertilizer and fuel, equipment will require a connected workflow to make all this work.

On a good weather day, in the U.S., 5% of the total cropped acres are seeded. This requires a connected ecosystem to keep an autonomous piece of equipment working in a field. That piece of equipment requires seed, requires fertilizer, it requires fuel to keep operating. It can't all -- be out there all day without operator being involved in the operation of that. So we consequently believe that communication needs to be happening in an ecosystem that tells you what that machine is doing and when do I need to go out to resupply that unit, when do I need to go out and service that unit, recognize that a 60-foot piece of equipment has 3 pieces being applied every foot. It has a seed, fertilizer and crop protection sets being applied every foot as it cross -- at every foot of that field as it crosses that field.

Consequently, there is a lot of things that need to be monitored and managed by an operator. We think more machines can be in the field, we think one operator can operate 2 or 3 machines, but we don't think the operator's going to be completely out of that field because someone needs to intervene and make sure that, that machine is operating in the way that we think it's going to be optimal.

Trimble is unique to address autonomy in agricultural. With our 20-year history in guidance, our domain expertise and our channel of 300 dealers, which is unique in that we can bring this technology to the farm.

Many, many point solutions and autonomous providers are talking about autonomy, but have no capability to bring it to market. Don't know how to get it there, they are knocking on the door of Trimble today asking, can you help us get it there -- get us there? That is the unique -- one of the unique propositions that we're able to bring to the market.

Our network effect opportunity is unmatched in our ecosystem of coverage, we have 150 million acres using Trimble technology, 335,000 Trimble guidance displays operating in the field today, and 90,000 customers subscribing to Trimble correction services.

Our market reach is unmatched, with our dealer partnership, with our Trimble authorized and Vantage dealers, we have 300 of those dealers throughout the world. We have a strong relationship with Valley, which is a large irrigation supplier -- largest irrigation supplier in the world bringing our Irrigate-IQ product to market. We have partnerships with Case IH, New Holland, AGCO, Claas and U.S. Sugar, to mention a few. We also have interoperability in the automotive industry with General Motors and BMW, where we are supplying services to the Super Cruise offering with General Motors. We see location being important new services in the automotive segment in the future.

In agricultural, we addressed mix fleet operations with interoperability with John Deere and many others.

Just to quickly recap where I started. Trimble transforms the full lifecycle from field to fork, focuses on the end user, with greater than 75% of our revenue coming from the aftermarket segment and less than 25% of our revenue coming from the OEM Factory-Fit, and more than 40% of our revenue in 2017 came from software, services and recurring revenue. Thank you.

Thomas S. Fansler - *Trimble Inc. - VP*

Hello, everyone, good morning. I think I'm the only thing standing between all of you and lunch. And so if I look a little like a lettuce wrap, that's understandable or it may be coincidental, I'm not sure which.

So my name is Thomas Fansler. I've been with Trimble for 7 years. I oversee the transportation reporting segment. And let's start with the answer first, about how we differentiate and win in transportation, and really the answer is threefold. We transform the supply chain life cycle by uniquely connecting transportation supply and demand.

We are laser-focused on end users, and we leverage our competitive advantage on data, scale, domain and workflows along with data science to bring uniquely differentiated high-value products to market, both to serve our customers and to grow our business.

Our technologies impact millions of vehicles and drivers. We serve 85% of the top 200 trucking companies in North America. Additionally, 2/3 of our revenue in this segment is already in software.

But I know one of the topics that's been on the radar for the last 2 years in transportation is ELD, there's been a lot of interest in this in our industry. And although I want to put it in context that it's only about 15% or less than 15% what I call the revenue share in telematics, currently, it's still been an important topic. So let's level set on that.

The first phase of the electronic logging device mandate went into effect in December of last year. That mandate requires fleets who -- and drivers, who operate motor vehicles on highways, to operate under the ELD guidelines as of December of last year. During this time, if they had legacy devices, using the automated onboard recording devices, they can continue to operate with those devices. If they purchase devices after December, they also can operate under the old hours of service regulations but those devices have to be ELD-compliant.

But frankly, the clock is ticking: by December of 2019, all fleets must complete the transition and implement Phase 2 of the mandate, which is full adoption of the ELD regulations.

That's about 18 months away, and we're seeing a couple of important trends emerge.

First, fleets with legacy devices which can't meet the ELD standard are shopping for new equipment. Many of these enterprise customers want fully featured devices and applications, they want modern, in-cab platforms such as Android. They want connectivity based on LTE.

Additionally, fleets that bought point solutions in the ELD space, we're also seeing them shop because they are questioning whether the price value on these single-purpose devices is going to meet their enterprise needs in the long run.

So these trends shouldn't be surprising. ELDs may generate the headlines, but for most fleets, value derives from other applications such as automated workflow, navigation, safety, vehicle performance, quality of life and the associated back-office integrations.

As I said, ELD only constitutes about 15% or less of the total value for the enterprise customer. Therefore, we see Phase 2 as a period of significant opportunity for Trimble.

During this period of transition, we're looking to expand our reach into adjacent markets, such as video.

Video fits well with fleets, with mixed fleets who are outfitting final mile or service vehicles. There are 8 million commercial vehicles in the Class 1 to Class 6 market, and these are opportunities for us because Trimble has the breadth and depth to service these complex enterprise accounts.

We'll also talk more in a minute about data, data science and domain. But I think it's worth noting that our future success in this area is heavily supported by our vision around connected transportation and the Trimble cloud that Doug referenced earlier. Scale, data accessibility and visibility are crucial competencies in the global landscape of transportation.

And what a market it is, with a total addressable market of $14 billion and a penetration rate of under 33%. In 2017, Trimble's transportation sector had $678 million in revenue, with year-over-year revenue growth of 15%. Our non-GAAP operating margin was just under 17%, and long-term operating leverage has been between 25% and 30%.

Approximately 1/3 of our segment's revenue drives from technologies and services supporting back-office planning, and these are known as transportation management systems, and that also includes the category of applications that include routing and vehicle maintenance. 2/3 of our revenue derives from Telematics and the associated software applications, which fit on the vehicle serving the driver and in the cab, and predominantly, this is recurring subscription revenue.

We have a very strong presence in North America, driving 88% of the revenue from the U.S. and Canada. We have strong growing businesses in Europe, roughly 10% of the total, and in India, Latin America and Australia, New Zealand, which currently comprise about 2% of our revenue but they are growing rapidly.

We see further growth opportunities in other geographies as well. Across all businesses, recurring revenue is approximately 60% of the total, with an additional 6% for software licenses. The balances are services at about 10% and hardware coming in at under 25%. The revenue mix is heavily weighted toward direct sales with 90% total revenue, and the balance coming from the indirect side on the OEM with about 10% of total revenue.

If you're a student of transportation, in recent years you've likely observed a number of important economic and cost-related trends. Truck tonnage has increased 14% from the period between January 2014 and January 2018.

During that time period, and this is important, with the regulatory landscape that we're in, we're seeing the already-compliant fleets lose about 4% of their driving hours, that's the amount of time that a driver's actually behind the wheel, hauling a load, that's a big drop. And that's in the segment of the market that was already compliant.

For those that are just recent adopters of electronic logging devices, we would estimate the drop is more dramatic, 10% to 15%. So in total, we believe about 6% of capacity has come out of the market over the last few years.

Additionally, another important compliance-related effect is on the emission side. Carriers that operate big rigs on the road, operate under the 2010 or later emission standards have selective catalytic reduction as part of their equipment. And it's not surprising when you look at the complexities of the equipment on the road today, that maintenance costs as a percentage of the total cost of operating that truck have gone from 6% prior to the 2010 emission standards and the move to SCR, Selective Catalytic Reduction and today, where it's at 10%. So that's two important themes, utilization capacity and maintenance. Well, let's talk about a third theme, which really involves drivers.

I think it's also an important factor in our industry right now, getting drivers in the seats of the truck. And right now, if you're a truckload carrier, your turnover rate, imagine this, imagine being an employer with an 81% turnover rate annually. That's an incredible problem for our industry and these are going to be 3 topics we're going to focus on in a bit as we talk about data domain and data science.

And so if you add all of this up, it's not surprising that we're seeing spot rates in the transportation market rise rapidly, up 150% over the last 2 years according to the DAT Index.

In this environment, carriers need to seat and retain drivers, they need to keep vehicles up and running and optimize load plans and routes. Shippers need real-time visibility to manage capacity and contracts, in order to move goods safely and cost-effectively.

Trimble serves the entire supply chain, which contains significant complexities. Truck and intermodal movement of raw and unfinished goods from factory and processing plants to ports, distribution centers, stores and end-users involves a precise choreography of planning and visibility.

In all, trucks may touch a product 6 to 8 times throughout the entire supply chain. The trucking industry generated $676 billion in revenue last year, making up nearly 80% of the nation's freight bill. Trucks moved 70.6% of the $10.4 billion domestic freight tonnage. And Trimble provides tools and systems to manage the process each step of the way.

Trimble has solutions across all dimensions of transportation. And I think if you look at this pie chart, one thing you'll note is there's 3 of the quadrants that are really related to the carrier. One of the quadrants is really related to shippers. So let's just start by talking about connecting shippers, which is really the supply of goods to capacity. That's an important theme for us.

Additionally, we deliver value in transportation management systems, field workflows and transportation model workflows, each of these uses customer data inputs from vehicles, tools and labor to optimize performance and increase the efficiency of our customers' operation, and let's walk through these individually.

Field and model workflows support drivers in their day-to-day activities, both in the cab and outside the cab.

Our solutions include turn-by-turn directions, fuel purchasing optimization, driving efficiency coaching, and the full complement of applications and services to meet fleet and driver regulatory needs.

The breadth of data that we collect supports predictive analytics on items such as driver attention. We'll talk more about that in a moment.

Fleets can drive -- can identify drivers at risk of leaving the company and take proactive measures to retain them.

Similarly, we help customers predict out-of-service events on their vehicles, and we'll talk more about that in a moment.

Safety analytics measure and score driver risk, allowing driver managers to coach and improve driver performance, and their important CSA, which is a federally mandated rating of carrier safety.

Trimble's transportation model workflows are the industry standard for optimizing routing, mileage and billing processes. Through ALK maps and ALK copilot platforms, we help fleets route their drivers and improve their productivity and efficiency.

Transportation management and shipper visibility includes planning, executing, tracking and delivering an A to Z, quote-to-cash experience. Embedded tools model these activities, allowing companies to work on their business while executing in their business. End-to-end supply chain visibility powered by big data gives customers access to real-time visibility updates -- and updates on their equipment, and we use predictive data to anticipate where equipment's going to be. This multimodal platform supports ocean, rail, intermodal, full truckload, less than truckload, and final mile shipments.

So how does Trimble win in transportation? We leverage our deep data integration, which provides enormous breadth and context to our decision-making processes. We transform these data sets with data science to predict outcomes and prescribe actions. If you take these 2 pieces together, we think really that's the basis for much stronger decision making. And then the last axis as you see going up is domain, and we would articulate that as, a measure of not just knowledge about an industry but actually the reach in your ability to impact work through workflows. And when you put those all together, what I would argue is better decisions in that supported by domain where we bring applications together. The "one plus one equals three" effect is really what drives ROI and positions Trimble up and to the right in that model.

Let's examine one of the most critical challenges in trucking today, and that's really around capacity utilization. So how do we put applications together to handle that process?

So if you think for a moment about putting trucks and drivers on loads, that traditional process of assigning a truck and a driver to a load really involves just a few considerations. How close is that truck and that driver to that pickup point? How many hours does that driver have available on their hours of service? And if they have those hours available for that load, can they get to the destination on time?

Those are the principal components of how trucks are dispatched today. Now there may be some gating conditions. Is this equipment compatible? I'm not going to put ice cream in a dry van trailer, or maybe it has to do with the driver's credentials. I'm not going to put a driver on a hazmat load if they're not hazmat-qualified.

But that's really been the dispatch world as we've known it today. But let's look at how Trimble is working to transform that ecosystem.

It starts with predictive driver retention. So imagine you're a driver. Drivers are out on the road, it's a difficult life. And maybe you haven't been home recently, or maybe the last 2 loads that you got didn't pay very well, or maybe you had corrections on your payroll, and you're frustrated or maybe even dispatched to the Northeast and you don't like driving to the Northeast.

Well, we take those data inputs because we have deep integration to what's happening with the drivers, what's happening in the cab, what's happening behind the wheel. And we model it to understand when drivers are at an elevated risk of leaving.

So that information's critically important on the next dispatch decision.

Similarly, if I have a vehicle that we can identify with our predict fault application that we know has a highly elevated risk of an out-of-service event, I better not put that truck on a load that's very time-sensitive.

So take it even a step further. Now I've got a driver, I've got a tractor, and I've got some combinations that I'm considering. And with the ALK-true ETA product, I'm actually looking at

several days to understand what hours I'll have available when the driver gets there, which feeds into my backhaul decision. Because I can't make a backhaul decision based on hours that aren't available to meet a time deadline for one driver, I better rotate to another driver.

So what you're seeing along the bottom is predictive analytics and prescriptive analytics giving us a forward view, really the future state informing the current state, and that feeds back into our match advice optimization engine to transform the decision in the here and now.

And this is really transformative because this is the -- really, if you think about the decisions that happen in companies every day, the ability to improve that decision-making by 5% or 10% in a business with operating margins that are only 5% is really dramatic.

Since I'm a geek -- I guess you got that probably at the outset -- let's talk a little bit more about predictive driver retention and how data science works in that.

So on the left what we're seeing is the assembly of data and this is just a representation of a subset of the data elements.

But from the transportation management system, we've got information about the driver profile, we know about their loads, we know about their pay, we know about how much time they've been home. We also understand from the telematics system what their driving has been like, how many hours they've been driving behind that wheel, how they're driving the truck, whether or not they're in equipment -- believe it or not, equipment matters. For a lot of drivers, the baseline predictor of whether or not they're going to stay or go for a fleet has to do with their tenure at the fleet, but it also has to do with the type of equipment you've put them in. So you better consider that as you're modeling this. And again, data science takes those data elements, mashes them up, transforms them, creates a predictive model, and that drives into our prescriptive engine, which when you think about it, this can be a stand-alone application. But when I talk about domain in the workflow, when you see that information in at the time of dispatch, you're getting that multiplier effect. But as a stand-alone application, you could also send a note to a payroll clerk that the driver might be leaving because they have a payroll problem, or they might be leaving because they have an issue with their driver manager. So again, these are areas where Trimble is transforming the workplace within transportation. So we deliver ROI to customers in a number of areas, including fleet management, operational planning, and execution and analytics. Our fleet management solutions help customers realize a 10% to 15% reduction -- I'm getting the 5-minute warning so -- in operating costs, while simultaneously increasing asset utilization. And you can read through these. I think again, what I would argue is that as you start to assemble these pieces together, you get the multiplier effect, and that's really what Trimble is doing. So a couple of examples, I'll just use 2. [Vermont Transportation] implemented our final mile and network design programs to realign their network and generated a 10% -- 10% to 12% reduction in total mileage as a result of that. They also reduced late deliveries by 15%.

Beelman Trucking used our Video Intelligence Solution, which is in-cab video that's forward-looking, can be side-looking to evaluate drivers' risky behaviors. They integrated that with our safety analytics, which looks at things like speeding, hard braking, it can look at lane departures. And when they put all of that together they were able to identify their top 10% most risky drivers, which represent about 60% of their risk, and they focused on those.

And then when they got done with that 10%, they focused on the next 10%, and they worked that list. So they went from the bottom third, which in the Federal Motor Carriers Administration's world is right on the edge of being hit with a notice and a warning. And if you get lower than that, you can actually get put out of service. Bottom third to the top decile. And again, that's a function of bringing that data and making it highly available and highly actionable to carriers.

So our transportation market -- I think I'm starting to feel a little bad because I saw some numbers that were bigger than $14 billion, but I think $14 billion is pretty good. So -- and it's really -- it's an exciting market.

I think, again, ELD has gotten a lot of hype but really figuratively, it's less than $0.5 billion of the total value.

I think in mobility and enterprise, we're talking much bigger numbers. And in the emerging markets, it's -- those numbers are big as well.

So when we think about those markets and the expansion, we think of several growth drivers including geographic expansion as we bring integrated solutions to help transform the local supply chain, we see growth in adjacencies, such as video and cargo -- cargo visibility, which is being driven by shippers worldwide. We see continuing opportunities in new product introductions, particularly in areas where we leverage our data, data science and domain advantage. And high-value integrated offerings that collectively will help Trimble to continue to outperform underlying organic growth within our industry.

As we discussed at the outset, we see significant opportunity in North America as Phase 2 of the ELD mandate rolls forward. This represents the continuing adoption of integrated technologies, and we see this adoption curve playing out in the years ahead in the rest of the world. As we bring these technologies to new geographies, we're also creating network effects where, for example, global shippers can unify visibility and insight on their assets on a global level.

And additionally, as we bring together the shipper side of the equation with the carrier side of the equation, we really get a one-plus-one impact equals three, where capacity and supply become optimized and united.

Trimble's global network, again, expands our reach with 1.2 million telematics units in the field, 3.2 million vehicles that are impacted by our equipment and this gives us a unique footprint in transportation globally.

We have a remarkable set of customers, if you really look at who we serve and the different segments within our market we serve, this really is the Who's Who of for-hire private food distribution, oil and gas, less-than-truckload tanker, and OEM customers. Interoperability plays an important part of our industry and it creates a competitive advantage. Trimble integrates with more third parties than anybody in our space. We have deep integration in all major aspects of transportation: maintenance, EDI, document management, freight visibility, and brokerage, routing and navigation, telematics and safety, and compliance solutions. We lead the market in these integrations, pulling in business-critical data to help our customers improve performance and harmonize the flow of information across the entire transportation ecosystem. Our vision is and remains to better connect transportation, leveraging our advantage and global scale, and our very strong presence in multinational for-hire and private fleets supported by the Trimble cloud platform.

As we've seen, this provides unique opportunities to leverage advantages in data domain and data science to transform the way fleets around the world manage the ever-evolving supply chain. We continue to focus on innovation, geographic expansion and product adjacencies, so that we're positioned to serve a broad range of markets and mix fleets wherever

they are in the technology adoption curve. And with that I will invite Michael Leyba up, to do the all-important luncheon announcements.

Michael Leyba

Just to correct you, Tom, so I think I'm the person now in between a room full of hungry people instead of...

Thomas S. Fansler - *Trimble Inc. - VP*

Okay, you look like a lettuce wrap. That's good.

Michael Leyba

So there's food in the room next door. So feel free to help yourself there, come back and eat at the tables here. We also have sign-up sheets for the building tour just outside the doors here. So if you have an opportunity during lunch to put your name down, that would be great. And we'll start the next presentation at 12:30.

(Break)

Unidentified Company Representative

Hello? All right. We'll go ahead and get started here in a couple of minutes.

So I'd like to introduce Sach Sankpal, who will talk to us about our emerging businesses. Here you go, Sach.

Sachin J. Sankpal - *Trimble Inc. - SVP*

Great. Good afternoon, everybody. My name is Sach Sankpal and I look after the emerging set of businesses here at Trimble.

Just wanted to give you a quick snapshot of my background. Had a very connection to Trimble during my early days. I started out as a civil engineer, spent a fair amount of time out on a construction site using Spectra Precision products in the field. Many years later, Trimble acquired that company, but I didn't know it then, but that was my early connection at the Trimble.

I then went on to consulting, focusing in on the construction industry. But essentially, we were part of the cleanup crew, getting involved in large-scale capital projects when they failed. So really understood early on the inefficiencies associated with the construction industry. So it was only natural for me to come to Trimble in 2001 and working with Steve and the leadership team at the time, we set up some very nice joint ventures with Caterpillar and with Nikon. I then went on into the telecommunication space and then the industrial space as well running some global businesses, and then I came back to Trimble at the end of 2015 focused on emerging businesses.

So today, I think you were able to get a good view on our various Trimble reporting market segments. Embedded within those market segments are a set of emerging businesses. Our focus on those emerging businesses allows Trimble to expand its addressable market and capture future growth opportunities. These emerging businesses are in rail, forestry, utilities and field service management.

Today, we have a differentiated position in these markets by focusing in on the transformation of its full life cycle or workflow by building our solutions around end users, and we leverage well-established Trimble technologies and bring innovation to these markets.

While these markets appear to be distinct from some of the businesses you heard about today, we consider them to be near-core adjacencies and an opportunity for Trimble to replicate some of the success that we've had in other industries.

First, these markets have certain characteristics that we like and ones that we are used to operating in. For instance, they are asset-intensive. Technology adoption has traditionally been low and they are generally inefficient.

Secondly, there are a set of dynamics or trends that are favorable for us, such as an accelerating rate of technology adoption, automation needs due to an aging workforce and users in this industry -- in these set of industries looking to further integrate mixed fleet environments.

Lastly, we have the opportunity to bring in our existing Trimble DNA and know how to solve some pretty compelling problems, such as bringing in key technologies from our core businesses, our ability to bring in strong domain experience and end-user relationships. Today, what I'm going to do is drill in on 2 of these emerging markets, railway and forestry.

First, in the railway industry, there are some meaningful problems to solve. This has traditionally been an industry that is conservative and slower to adopt new technologies. At the same time, we see significant sources of economic loss in this industry with the potential for someone to come in, solve some of those meaningful problems and capture some of that economic value creation.

First, we see that maintenance costs represent 50% of total costs for a train operating company. This makes a lot of sense as the industry performs time-based maintenance and has a high degree of labor and material content.

Uptime is also a significant issue, as trains spend 30% of their time in a workshop just to perform basic diagnostics. This results in stranded assets with train operating companies having the need to have more assets on hand to improve uptime.

Safety is also a significant issue. The Federal Railway Association tracks derailment, damages and deaths in the U.S. In 2017, there were over 1,800 reported accidents where 65% of them were related to derailments. This is the equivalent of 3 derailments a day in the U.S. $274 million of damages was reported, and regrettably, there were 40 deaths and nearly 500 injuries. Overall, there are some pretty significant problems to solve in the railway industry.

Let's discuss our approach for solving some of these problems. You've seen this framework slide throughout the day, and our approach in railway mirrors the success that we've had in some of our other core businesses. I'm going to direct you to the bottom half of that pie chart. In railway, we started out focusing in on model-based workflows such as planning and design, and field workflows, such as construction.

We have been delivering solutions for these workflows for well over a decade through our Geospatial and our construction business. Through these experiences, we sensed an opportunity to solve some of the more meaningful problems in operations and maintenance and solve the problems that I just recently discussed.

As a result, we made 2 acquisitions. In 2014, we acquired the Nexala business, based in Dublin, Ireland, mostly a software-based business. And in 2017, we acquired Beena Vision, which is based in Atlanta and is the world's leading wayside detection system player. Both of these businesses help train operating companies improve safety, improve the efficiency of their operations and maintenance through condition-based monitoring.

Let's talk about how we achieve that. I am going to direct you to the bottom of this chart. First, with our Beena Vision business, we deliver industry-leading machine vision based wayside inspection systems. Effectively, these are just large sensors that sit either under or on the side of the rail tracks. Using synchronized laser and camera systems, we can monitor various critical components on the railcar at speeds in excess of 100 kilometers per hour.

For example, we can measure the wheel profile, the tread surface of the wheel and the condition of the brake shoes. These are all critical components that can cause derailments.

By measuring these systems in real time, we can eliminate ineffective manual inspections and also minimize derailments. We've also designed these products to operate under rather stressful environmental conditions, to the extreme heat of the Australian outback to the cold of the Scandinavian North.

I direct you to the middle of the slide. With our Nexala business, we deliver software-as-a-service solution and help train operating companies manage the entire life cycle from operations to maintenance and repair. The Nexala platform captures and integrates real-time component data by integrating with a control unit, the event recorder, and the variety of sensors that exist on the train.

In fact, the Beena Vision business is an example of one of those sensors that feeds data into the Nexala platform for aggregation, analytics and, eventually, visualization and the ability to take action.

By aggregating and analyzing this data, we can provide train operating companies a real-time view of overall fleet status and identify faults before or as they occur. Overall, these integrated solutions help the train operating companies manage service levels, reduce cost, drive significant improvements in maintenance operations and minimize derailments.

You heard some examples today of linking the physical and digital world, and I'd like to share how this works with our railway solutions. On the top left of this slide, you see a train in operation in the physical world. With our remote monitoring solutions from Nexala, we can build a digital model of the condition of the train in real time while it's operating.

That digital model of the train is represented on the dashboard that you see on the top right. And it's also what the train operating company monitors in their network operations center. By utilizing a rules-based engine to automate data processing, we can help the train operating company identify faults if certain limits are breached and then help them take action to resolve it before you have a derailment.

If you look at the bottom half of the slide, with Beena Vision in real time, we can create a digital model of the wheel tread and profile using optical imaging and laser scanning. So with machine vision and machine-learning algorithms, we can assess automatically wheel tread and flange surface conditions. Here in the pictures, we can see that the system identified a crack in the wheel and a spall in the tread. These are the types of issues that can cause derailments. So in summary, linking the physical and digital worlds allows for automated inspection instead of inaccurate manual inspection processes and minimizes derailments by identifying problems in real time.

If we flip it around and we look at going from digital to physical, we can drastically improve maintenance processes, increase the uptime of fleets and reduce cost to serve. On the top left-hand side of the slide, we have a screenshot of our engineering maintenance management module running on a tablet or mobile device. This is utilized by engineers performing repair.

Traditionally, engineers in the depot often used a variety of different systems like spreadsheets, e-mails, pen and paper for maintenance management, a very, very inefficient process. By consolidating systems into one enterprise-wide engineering maintenance management system, we can bring defect analytics and maintenance planning together in one place. So the engineers in the depot can take that digital model, they can troubleshoot equipment; they can understand root causes; and they can perform fixes much faster.

On the bottom left, you see screenshots of our planning software that allows operators to integrate timetable, actual vehicle location and realtime diagnostic information. In the physical world, in the actual network operations center, they utilize this to identify the root causes of delays and plan new journeys for optimal timetable adherence.

Taking it further into the physical world, we provide a digital representation to the engineers in the cab of the locomotive to provide advice on optimal speeds to save energy while meeting their timetable schedule. In total, going from digital to physical helps train operating companies achieve energy savings, improve driver safety and stay on schedule.

Let's talk about a few customer deployments that we've had and the benefits they have achieved. First, Irish Rail. Irish Rail is the operator of the national railway network in Ireland and operates all [intercity], commuter and freight operations. It carries 46 million passengers a year, operates nearly 550 carriages and operates at a maximum speed of 100 miles per hour.

By implementing our solutions, they have been able to achieve maintenance savings, incident prevention and operational efficiencies. Specifically, they achieved a 60% improvement in the time required for scheduled maintenance and a 50% reduction in service affecting failures.

Next, Greater Anglia. Greater Anglia provides the majority of commuter and regional services from its central London terminus to Essex, Suffolk and Norfolk, and throughout parts of East of England. It has a fleet of 1,000 vehicles, and they're going through a rapid modernization program. By implementing our solutions, they have been able to achieve a 40% reduction in their delay minutes, a 60% improvement in the distance between train failures and a 65% reduction in maintenance investigation time.

We have competitive differentiation in the railway market based on our domain knowledge, our business model and our market reach. Today, we have global reach with our Nexala business based in Europe and our Beena Vision business based in Atlanta. We work closely with the leading train operating companies globally, both in passenger and freight rail, and you can see some of the logos on the screen.

I'll quickly touch upon our business model. We have a modular approach to a solution rollout. Customers can deploy this at their pace. We sell SaaS, onetime hardware maintenance contracts and professional services. Also, we integrate and are agnostic to a variety of ERP systems.

I'm going to turn our attention to the Forestry business. The obvious points on the Forestry business, it's an asset-heavy industry. The assets are dispersed. They're outdoor. They're harsh. And there's lots of problems to solve. Just the kind of market that Trimble likes.

Today, forests cover about 30% of the world's land surface for a total area of approximately 3.8 billion hectares. As we've seen today and throughout the day, when we get into an industry, we look at the entire life cycle and workflow and identify areas of inefficiency.

As you can see in the chart, we break up forestry into the following life cycle: In land and forestry, you have key processes in planning, planting, growing and thinning. In fiber, you have key processes in harvesting and transport. And then you have the processing of that fiber.

Given that workflow, we can see many inefficiencies and key trends. First, it's an industry that is fragmented regionally and within the supply chain, resulting in challenges around communication between supply chain partners and also the visibility of forest product assets. Also, it's still very much a paper-based process.

We also see $15 billion to $20 billion of leakage in harvested wood annually, primarily due to theft. We also see an evolution in land ownership to investment funds, which requires investment-grade information for asset valuation. Overall, we see a significant opportunity to integrate information across all the partners in the supply chain.

Let's talk about our approach. Overall, we look to build a connected forest strategy by linking the physical and the digital world. I'm going to touch upon 3 key processes and provide you a integrated view across that supply chain.

First, we have solutions to manage land base and assets. Second, we link up the buying and selling of fiber. Third, we help to optimize operations from harvesting to logistics. I'll touch upon all 3 of them.

Regarding the management of land base and assets, our Land Resource Manager software allows owners to manage asset inventory, run day-to-day work in the field and also create, manage and evaluate strategic and operational plans.

The solution provides a set of tools for owners to understand ownership, location, species, size, health, age, tree growth, mortality and other factors so that they can make much more informed decisions on their asset base. The Land Resource Manager also provides the ability to automatically schedule harvesting dates and predict harvest outputs.

Regarding the buying and selling of fiber. Once a trees is cut, we help to integrate the chain of custody across that entire supply chain. So all the participants have a real-time view as it passes from one party to the other. This gets rid of paper and helps to minimize theft.

Regarding harvesting operations. We provide onboard solutions to the tree cutters, which integrates the harvest plan, which includes the length, destination and type of tree, and it takes that profile and optimizes the cut directly in the field. Essentially what we are doing here is helping owners merchandise directly in the field based on actual demand from customers. So overall, we are removing waste from this industry and helping to optimize processes.

In closing, just like to say our focus on emerging markets helps Trimble to expand our addressable market and capture future growth opportunities. It's also a near-core adjacency move for Trimble. And at the same time, we are solving some very compelling problems using new technologies and then also some of our existing technologies from our core businesses.

Thank you. With that, I'd like to introduce Rob Painter, our CFO.

Robert G. Painter - *Trimble Inc. - CFO & Senior VP*

Okay, we're towards the home stretch. The presentation that I'll be giving is now on investor.trimble.com. We withheld it from you till now. So you can download it now or, obviously, follow on the screen behind me. If this works. Okay, good.

So in preparation for the time today, Michael Leyba and I reached out to many of you in the room to get a sense of what was on your mind, to get a sense of the questions you had, potential misconceptions you wanted us to address today. I hope you've gotten a good sense of that through the time today up until now.

My objective, to close out the day before we move into the Q&A is to -- is twofold. One, there are some additional questions that are out there, and I'll take those on in my commentary. And the second, of course, is to put numbers to a target financial model. And so yes, there will be math involved in the afternoon.

And on that target model, I'd say the nature of the questions has been asking for specificity on the model and a view forward on the model. And so if you know Steve and if you know Trimble, we're not a company that's about good intentions and platitudes. You're going to hear substance. And hopefully, that substance doesn't come too much at the price of simplicity.

So 3 areas that I'm going to cover in my time are on the financial model, capital allocation, which of course is a topic that's come up more here in the last few weeks, and then finally on really a bit of an existential question around identity for Trimble.

So on the financial model, the nature of the questions that we've been getting from you, as follows, as we establish that target model, and it starts with the revenue growth expectations that we have. So what are our organic growth and inorganic growth expectations in our model? And while I'll be talking in terms of a model over a long term and over a cycle, I'll specifically be orienting us to a 2021 view of the Trimble model.

Second, the mix of that growth, specifically the software mix of the growth. We'll cover that today. And then as that model translates down through the bottom line into the P&L and into cash flows, to understand the margin progression here over time. So that's the financial section.

On the capital allocation side, on the heels of e-Builder and Viewpoint and $1.7 billion of capital allocation towards the acquisitions. There's a set of questions around that as well as our track record as stewards of your capital on M&A and our efficacy around that.

And then finally on the identity topic. Industrial company or the technology company question, and we'll come to that. I recognize we're a bit of tweener, and I can have radically different conversations depending on who I'm talking to at any point in time. And then finally, a bit on responsible corporate citizenship.

So in style, you can see I forced everyone to start with the takeaways first today. So my version of that and the highlights and the -- to get to the punchline of what you'll hear, and I'll be going through more detail in this as this follows.

From an organic growth perspective, we model 6% to 9% ongoing organic growth for the company, and then we model about 3 percentage points a year on M&A on top of that. That's over a baseline of time, whether you want to call that over a cycle or over a long-term point of view. That's the nature of what we're modeling forward.

When we talk about the mix of the revenue going forward, we today, in 2017, we were 47% software services recurring. This year, we think we'll cross 50% with a half a year of Viewpoint. Model forward to 2021, and we see that growing to over 55% of revenue. Again, we'll go into more detail in all these things.

As that translates to the bottom line, if you've known us for a long time, we talk about operating leverage. Those of you in the room would probably generally call it incremental margins. Call it whatever you like, the point is, is to drive those incrementals and so we model 25% to 30% incrementals.

It's in line with a long baseline that we demonstrated over time. You play that forward into the model and you have operating income that would look like 21% to 22% OI by 2021. If you're talking in an EBITDA terms basis, that'd be 23% to 24% EBITDA.

On capital allocation. So I talked about the -- what with the money we put to work this year. What I want to present to you is some data that shows that -- just how balanced the company is now from a revenue and profit perspective as we come into this time with the acquisitions from the year. And the point here is going to be is that we've got conviction and confidence that we can succeed on e-Builder and the Viewpoint deals.

And then on identity. So my aim is to articulate a point of view as Trimble as a technology company. The markets we serve are large, global, underpenetrated by technology. We're selling ROI. That ROI drives productivity. We're not selling equipment that expands capacity. So ROI and productivity more so than capacity. That is what we do. And then, again, I'll close with responsible corporate citizenship update and some recent work on the Trimble Foundation.

Right, so there's your answer first. Let me set context before we get into the model. And so Steve talked about Trimble over a long baseline of performance dating back throughout his tenure at Trimble. I'm going to give you a view over the last 3 years, that's the data that'll be up on the next few slides.

The punchline here if we look at 2017, we grew double-digit organically. So it was up 10% organically last year. Continued into the first quarter of this year on that organic growth basis. We delivered the operating leverage. So the operating leverage was above 30% on an organic basis. It netted down to 23% with the acquisitions from last year. And this translated into EPS, which is up 22% on a year-over-year basis. Okay, this is from 2017. The Trimble model produces cash flow, and this is important in this context of the debt that we're taking on.

So from a cash-flow perspective, let's start on -- more on the right-hand side. So our working capital as a percent of sales, if you include the deferred revenue, today is below 5% of revenue. You can see the deferred revenue balance is growing double digit. That's we're collecting cash before we're actually recognizing the revenue on these software contracts. That translates into EBITDA, which I'm showing on the screen. That EBITDA was 20% last year.

I'd recognize that I think there's some additional metrics that we need to start talking about as a company. And so in our quarterly calls, I want to start -- I will continue to talk about operating income, but we'll start to also bring EBITDA into the equation. I think it provides an additional level of clarity about how the model's producing. Because -- for 2 reasons, 1, you're going to pick, it'll be before the interest, okay. And so that's going to be a different dynamic here for the next couple of years.

It also picks up the income that we make from our joint ventures. And the joint-venture income last year was about $30 million. And that gets lost in an operating income-only metric. So we'll complement that with EBITDA. That's one of the reasons we've got it up on the screen and then, of course, translates into the cash flow from operations from there.

So the '16 and '17 numbers will look a little wonky when you see them stacked beside one another. The model for us, we look at between -- and we'll look at a ratio of operating cash flow to the non-GAAP net income, and we look for that to be -- basically between 1.1x and 1.2x. Last year, it was 1.16x, so it fit within that model. It was actually 2016, it was 1.46x on that ratio.

And we had both -- essentially the benefit of the deceleration of the inventory as the growth really started picking up, especially in the second half of that year. Come into '17 and more towards the back half of the year, we started also building -- we started building inventory as we've seen the demand environment continuing.

Software. Everyone wants to talk about the software revenue. We were $1.2 billion in software revenue last year. Let me break this down into its piece components. So there's 3 components of the software to understand -- really, I think it would be in most companies, the software, but okay if we're sticking to Trimble. Subscription software revenue. Subscription is the SaaS offering -- or it could be another subscription, but it's generally SaaS. Maintenance and support, that's what you're collecting off of perpetual -- prior perpetual software license. So the sum of those 2 is the recurring revenue.

And that recurring revenue grew double digit last year to $730 million. That's the highest visibility revenue stream we have in the company, that recurring revenue stream and it's growing. You add that -- to add to the recurring revenue stream, you would look at, it's titled Software & Services. It's really the perpetual software. It's term licenses. And it's the professional services that are required to implement some of our software. And that component last year was $510 million and also growing double digit.

So the point on the screen is that all of these software streams matter. All of these software streams are growing. All of these software streams are adding up to what is now over $1.2 billion of revenue.

Balance in the Trimble model. I think this is something that's not well understood, and I'll put that on myself for not explaining this better in prior meetings that we've had. And so the comparison between our revenue and operating income make up between 2012 and 2017, and what I want you to see on the screen is in 2012, 59% of our revenue came from 2 of the 4 reporting segments. Okay, so that came from Geospatial and it came from Resources & Utilities, which is -- Ag is the biggest part of Resources & Utilities. So 59%.

If you look at the operating income in 2012, 76% of the operating income came from those 2 segments. This is before corporate expense that would overlay on top of this. 59% revenue, 76% of our operating income.

Fast forward to last year and to demonstrate how we've brought much better balance into the portfolio, that revenue between those 2 segments is now 43% of the revenue. So it's moved from 59% to 43% of revenue.

On an operating income basis, that 76% has moved to 48% of revenue. That's a pretty dramatic change in the business. Now it comes twofold. The performance of the Transportation business segment as well as the Buildings & Infrastructure segment have gone up and to the right, at the same that ag decelerated over that time frame. So this balance that we have is better than -- I think really puts us on a better footing than I think we've been at any point in the -- well, at any point in the most years that I can certainly remember. And I think this is important because this establishes conviction for the go-forward model that I'll talk about.

So I want to bring together a couple of the charts that we've been seeing in the individual presentations, so it's probably more helpful in a leave-behind context so you can come to the one place in this financial material to get this data. So while I'm establishing the context, you've seen the presenters talk about the first -- let's say first 4 columns. I'll talk to the Trimble number in aggregate.

We're an aftermarket focused business, whether you define it as aftermarket or end user, 85% of our revenue is directed at that aftermarket and that end user. We're emphatically not an OEM provider, and I think that is misunderstood at times. And of course, that does vary by the different segments, and you've got the data on the screen to do that.

The next one would be the software elements of each of our reporting segments and how that then adds up at a company level. Just to make sure you're clear, to understand our software composition, add the recurring revenue and the part of the chart that says Software & Services. Okay, so it's all software revenue. That's the 47% of software and services we talked about last year in 2017 that adds up at a company level. I think you'll hear more in a Buildings & Infrastructure sense that we're already over half software today, and that's, of course, before e-Builder and Viewpoint.

I think it's not well understood today just how much software is in the Transportation business. This is predominantly a software business today. Of course, a business like Geospatial is mostly a hardware business.

One more bit of context and this one is bringing together the addressable market data along with the penetration and our growth expectations in our end markets. So the first 2 of the 3 rows is the exact same data you've seen throughout the morning. And then the far-right side, of course, adds it up to a Trimble level where we would see a potential addressable market in a range of $50 billion on a global basis. That has -- is still -- has very good attractive penetration opportunities, which is to say, it's not very well penetrated today.

Of course, this differs by market, by product, by region, and if you really get into the sausage-making of Trimble market planning, you would actually end up seeing [less] spreadsheet, no kidding, a spreadsheet that has basically 1,200 cells in it where we're looking at 10 different regions of the world and segmenting our markets into over 100 different segments that we think are relevant for us to look at, so that any point in time, you think of it like the Rubik's Cube. Okay, we should be able to talk about what are we doing in India in this business in this subsegment of the business, multiply that out by the number of businesses we have in Trimble, and you're getting a sense of the cadence of how we run the company and the governance structure that overlays that.

Take it to our growth expectations. I said 6% to 9% organic at the total company level. Add about 3 points on top of that for acquisitions, and you get a 9% to 12% total growth expectation. Not surprisingly, Geospatial would be the most mature of the segments that we have, and we put a 4% to 6% growth on that.

And Resources and Utilities and Transportation, we put a 7% to 9% organic growth expectation over a long baseline. And then the construction -- Buildings & Infrastructure, you should expect to see that closer to a double digit on the heels of e-Builder and Viewpoint coming into Trimble, which are growing faster than that. So that rises the tide in that segment.

Okay, so that's the context and now the math. Okay, so let me make first a note on something. Let's talk about '18 and a go-forward model. I'll first make a, what'll be a new comment on Q2. And my Q2 comment is that we are holding to the revenue range that we talked about in [our] earnings.

The second new comment on the page would be talking about the calendar year or fiscal year of 2018. If you know us, you know that we don't annually guide. We talk to the quarters, and we talk at a pretty high level about an annual -- at an annual number.

What we see happening for the rest of the year, but I'm going to talk more than we usually do about 2018, okay, for the whole year. We see 18% to 20% growth on a total year basis, essentially half of that from organic and half from acquisitions. That FX, we have been -- been having to update that over the last 24 hours as these currency markets are pretty active at the moment. So that one's been shrinking down to the 1%.

Note -- please note this has a half a year of Viewpoint in it. So do understand that in those numbers, which we expect to close at the beginning of Q3. So now let's extrapolate this into the model through 2021. You apply that 9% to 12% growth over that time frame, and you end up with a revenue stream that looks like it's between $4 billion and $4.5 billion.

We have half a year of Viewpoint this year. Essentially, Viewpoint will be included as half a year next year of an acquisition revenue. We flipped the -- I think most people do this. We flipped the acquisitions on the 13th month to look at that as now an organic revenue growth. So just recognize that.

And just do recognize please also this is a multiyear range. So before you start writing words like deceleration, and okay, what am I seeing in '18? And then what do I see after that? Long baseline over a cycle. Long baseline over a cycle is the expectation we have here. So it's not specific to 2019.

The natural question that can come up on the model going forward is what could be better and what could be worse [around] base line expectations. So a couple things that we do not put in our expectations are a U.S. infrastructure bill, which would be a big net positive for us at Trimble. And the second is we do not model an improvement in agriculture commodity prices. That again, would be a large net positive for Trimble.

One other note I'd make on the page is that, on the subscription software businesses and transition to software businesses, is that has a plus or minus effect to it. And as of course I hope you know if you're in this room that the minus can be -- you can have the headwind as you're going through the transition and then the tail end -- the tailwind, excuse me, as you come out of the transition.

So while we have over $700 million today in recurring revenue, when we look at the business it has maintenance and support associated with it as well as the perpetual, the revenue that's largely perpetual software in nature, we will see some of that begin to convert over time.

We're not taking a purposeful model transition [where] we're going to force our customers and our markets into a hard transition into subscription models. We don't think that's the right thing for the market. We don't think that's the right thing for the customers. But we will do this over time in many of our products.

Roz mentioned the SketchUp product for one -- as one that'll do it. It's a business that had been growing 20-plus percent a year, generating operating leverage well above the company average. Now they'll go into a SaaS transition, and that growth will stall for a couple -- maybe 18 months. And then we come out of that. So I want to point that out that, that can have its puts and takes along the way.

Okay, on revenue mix. This is #2 of the 6 topics in wanting to understand where is that revenue going with software in the future. I mentioned this year, we expect to cross the 50% threshold with a half year of Viewpoint, and I said 55% when you model it through 2021.

If you look at the composition of that -- of the software in the bar charts, that comprises into that $4 billion to $4.5 billion range, what you can start to -- I trust you all can backwards calculate the math, we expect the recurring revenue streams to be growing faster than the perpetual software and to grow faster than the hardware revenue streams and at a clip of, if you take the overall software that makes up that 55% and compare it to the hardware growth, compare '18 to -- 2018 to 2021, you basically have the software growing at a 2 -- almost a 2x clip to the hardware.

Within the segments themselves, so you saw a chart a little bit ago that had the current breakdown of revenue by the segments. The additional commentary I would say about the segments, when we model forward into '21 -- 2021 is as follows. We would expect the -- the Buildings & Infrastructure segments as well as Transportation to be more than 2/3 software, okay, by 2021. The Resources & Utilities business, we expect to be about half software in 2021, and so, hopefully, that gives you the color you're looking for at a segment level.

One of the things that I actually also want to mention on the percentages that we're looking on the screen here is, I'm often asked or I feel like I'm often asked, why aren't the percentages growing faster or why isn't that changing faster? What I would want to convey here is that I'm ultimately -- we're ultimately more interested in taking dollars to the bank than percentages. And so I don't anticipate that we would have any interest in doing some kind of financial engineering to try and juice the number of percentage one way or the other. And when you play that math out in growing 2x -- almost 2x a clip of the hardware, it generates to that 55% level.

Okay, so that's the top line. That's the revenue mix. Now how does this translate down into the bottom line? And I know this is a little bit of a dense slide. And I'll start with 2018.

And so the additional commentary on 2018 is largely consistent with what we've been saying. We talked about operating margins improving 1 point this year over last year or more than 1 point. And so that would put us in a 19% operating margin range. The EBITDA would be a couple hundred basis points above that, around 21%.

I talked about the growth in the previous slide for '18, again, that half a year of Viewpoint. Play that through, and then what changes in the second half of the year, [is there could be] incremental interest expense as the debt facility kicks in, apply the tax rate to that, and then you got the EPS of $1.72 to $1.82 that we expect for the rest of this year. Okay, so that's, let's call it the P&L view of 2018.

Let me move to the target model as we go forward. So we talked about operating leverage where that incremental margins being fundamental to our governance model. So you play that through. You take that growth. You play it through, 25% to 30% operating leverage over time. Of course, we would look to be on the higher end of that as we get more software-centric as a company. And you have EBITDA that goes into that 23% to 44% range, and of course the OI, a couple hundred basis points below that.

A commentary on that. So there is potential drivers up or down on the right-hand side of the slide. Okay, one easy one to point out would be tax, so currently at 19% tax is what we model at a non-GAAP tax rate. We all know the global tax landscape is shifting up, down, right, left and is very dynamic. So where that end up in the next few years is -- I'd say we'll see.

Now let's take this to the cash flow. And if you look at 2018, you put in context of that -- I talked about this 1.1 to 1.2x ratio, the non-GAAP net income on -- cash flow to non-GAAP net income. This year, we see that translating actually a little bit below that. So a little bit above 1.0x. And it's actually more a function of accounting is what takes off that 1.1 versus the 1.0x. So when we did the e-Builder acquisition, almost $20 million of the purchase price had to go to cash flow based on the way the options were accelerated.

So a $500 million purchase price. We had to put $20 million into -- actually hit op cash flow. And so the books show $480 million purchase price. Way more information than you want. I understand. But I totally need -- feel like I need to bridge to the op cash flow that you will see here. Doesn't actually ultimately impact, of course, the cash that we have. It's the -- what the accounting drove there.

CapEx-light models. We talked about net working capital. One of the bigger capital expenditures we have is the building behind you that's being built this year. Asset light. The nature of what we're typically investing in, in CapEx is internal systems.

So let's play this forward now into the '20 to 2021 time frame. And that cash flow generation, we expect to move between a -- we -- here we stay above the 1.1x of cash flow. And again, I would look for that to be closer maybe even to the 1.2x over a baseline.

And the thing that drives -- some of the things that drive us towards the higher end of the spectrum, on that again, we have the deferred revenue balance [in other words] we're collecting that cash up front. We've got the low net working capital requirements or intensity and more and more of the software businesses.

And cash taxes, of course, tend to be lower than non-GAAP taxes that we book in through the P&L. Okay, so that plays through into the target model.

Okay, looking for body language, are you getting what you're looking for? I'll see if my phone says red or green on the tickers here in a little bit. I guess that's my scorecard.

Capital allocation. So speaking of cash, and the money that we've been putting to work. So let's start with a view over the last 5 years. If you took '13 -- 2013 to 2017, over that time frame, we've deployed about $2.1 billion of cash. This year alone, okay, $1.7 billion has been deployed. But over that baseline time frame, about half went to M&A and about 1/3 went to share repurchases. So I'd say after we get back in a deleveraged position, I would look at an ongoing basis for it to look actually pretty similar to what you see on the screen.

In terms of the capital allocation priorities, pretty normal to what you'd hear me talk about. First priority is driving organic growth. Second is the deleveraging. To put a finer point on this deleveraging topic. We expect in July to probably be around 3.6x. That is net debt to EBITDA. We're saying we want to get below 2.5x in 20 -- within 24 months. So basically taking a turn out of that ratio.

Now let's take it into some numbers. Okay, take EBITDA, assume around $500 million. Take operating cash flow. Last year was $430 million, so this year is going to be above that. That's over $100 million a quarter. You can connect the dots on how we can manage the paydown and the deleveraging over the next couple of years.

On the debt profile itself moving forward, so there was a bank commitment that was put in place, that was secured upon the signing of the Viewpoint deal, so a new credit agreement was issued on the 15th of May as an amend and extend on the revolver as well as a delayed draw $500 million 3-year term loan facility. Beyond that, it would be premature to talk about the rest of the -- I'll say the rest of the takeout on the financing.

Moving on. So to talk about M&A as part of that capital allocation framework. Steve set up the model of how we quantitatively, qualitatively look to filter acquisitions. So I'll move beyond that one and actually go into a case study example. And again, I know this is a dense slide.

You had to factually -- for those of you that were on the call for the Viewpoint deal, this is the same exact slide. Here's the takeaway from it, so if you don't want to look at words on the screen. 2010, we essentially started creating the building construction and transportation franchises. They were $100 million in 2010 -- $105 million of revenue in 2010. They were basically breakeven businesses, a collection of the small number of businesses and portions of revenue.

Fast forward to 2017. $950 million in revenue, okay. $105 million became $950 million in revenue. It was built largely on the anchor tenants that you see on the screen, which really provided the foundation for us to create these franchises. Today, these franchises are 75% software. These franchises have over 50% recurring revenue in the total revenue mix. And they are 20% operating income level, and their growth is outpacing that of the company average.

I would say and submit these acquisitions have performed and that they've got runway for growth and margin expansion and time. I'm going to start speeding up, and I'm going to talk about identity.

Identity. So emphatically we view ourselves as a technology company, both by design and by the numbers. So if I'm talking about by design, this covers a little bit of what Doug talked about today. We've got up over 1,000 domain experts, and we think the magic happens at the intersection of the domain experts and the developers. So the 3,400 developers, the 1,000 domain experts come together to really drive innovation. We purposely

spend this 13% to 14% of our sales on R&D. That'll be upwards of $400 million. You play it through this year, the majority of that R&D is spent on software. So I'd want you to see that over 2/3 of that -- or excuse me, 2/3 of that R&D is on software, and you can see on the bottom right, Doug talked about some of the areas we're investing in on the cutting edge of analytics: data science, blockchain, autonomy, name all your -- -- all the new stuff.

By the numbers, a technology company, so over $1.2 billion in software services and recurring. We talked about how much of that is recurring. We talked about the double-digit growth within the subscription revenue.

One new metric, the 606 accounting has companies disclose, is the unbilled but contracted backlog, and that's over $1 billion now, and so that's now publicly reported information. That does not include revenue that is on a subscription but is off contract and just continues to renew, so [the number] actually even understates what's out there. So technology company by the numbers.

The cycle question that has come up. This is a bit of a summary of what we've seen throughout the day. Steve started us with talking about the strategy applying our technologies over the life cycle of a given industry as we seek to transform them. We've got a portfolio that's got revenue and profit balance, really, unlike any other time in the company's history. We've talked about the attractiveness of the end markets that we're participating in. We've talked about how much more software is actually in our portfolio today and where that's growing over time, how much of our business is about the aftermarket and the end user, again emphatically an end user company, and how the world's a great big place, half in the U.S., half outside the U.S., we see a lot of opportunities to continue to grow outside the U.S.

This model can withstand a cycle, and if you look at us on the long baseline, you go back to some of the data Steve talked about, I think -- I hope I can kind of redefine or pivot some of the thoughts that I think -- or worries or fears that are out there sometimes on Trimble. You look at just how much more recurring revenue we have in our portfolio today, you look at the state of agriculture and how it's still not even close to being in a recovery mode. I hope I've demonstrated that ELD is just one small element of what we do. In transportation and construction, we're going to have a run rate of over $1 billion of software in that industry. And if you agree that software tends to be a stickier revenue stream, then you're coming hopefully closer to a conclusion that I have that we've got the elements here to be able to manage over a long baseline.

Finally, on responsible corporate citizenship, this is a topic comes up with employees. It's a topic that comes up on the ESG side with investors, particularly to the European investors. This is an easy place to work at Trimble if you care about purpose. And when we talk about responsible corporate citizenship, it starts with what we do in our end markets.

You don't have to look hard. You don't have to look far at the productivity we drive, the environmental sustainability our solutions drive, the quality and safety. This is an easy place to be proud of, working for, it's an easy place to talk to people about coming to work for because of the purpose that we really serve in these markets.

And so I'll close with talking about responsible corporate citizenship. So we codified this last year, but -- okay it was codifying something that's been part of the DNA for a long time. We actually established a Trimble Foundation last year. And we have 2 focus areas for the foundation. One's in natural disaster relief. That should be a very logical connection to what Trimble does. And the other area's in empowering and educating females in developing economies. And there's actually a lot of interesting connections to the Trimble business for that as well.

So very proud of what we do as a company. We're very proud of what we do in our markets, for our customers but also in our communities. And of course, I'll end with the same -- repeat of the same message upfront. And I think with that, that brings us to a close. And let's move to the Q&A.

So if I can ask my colleagues to all come up, and what we'll do is, for the next essentially 40 minutes, so until 2:00, we'll run a Q&A. At 2:00, we'll start a reception, and then if you saw -- I think we saw people were signed up. Around 2:30, I think, will be the first building tour. You know about that. I think you know about the shuttles for those of you who need or want a shuttle to the airport.

There's 2 of us that are mic-ed up already. Michael, because we're doing the webcast, you know the drill. We need to pick up the question. So folks, as they're answering questions, could maybe just repeat it to be careful and -- ask away.

Unidentified Company Representative

So if you can also introduce your name and your firm at the outset of your question, that would be great. Corinne?

Corinne Jenkins - *Goldman Sachs Group Inc., Research Division - Research Analyst*

This is Corinne Jenkins from Goldman Sachs. I was hoping you could talk a little bit about within the operating cost structure that you guys have in place right now, how much of that is going to support products that are currently commercial versus some of the next generation of products?

Robert G. Painter - *Trimble Inc. - CFO & Senior VP*

So if you -- also, I can start, and maybe, Doug, if you want to add. If you look at our operating expenses, they run about 38% of revenue. And then if you break that down between R&D, sales and marketing, and the G&A lines, so R&D is about 14%. I would -- we would estimate that if you take about 150 basis points within R&D, so 1.5%, would be where developers are working on technologies like we talked about: analytics and blockchain, autonomy. It also picks up some of the leverage we get from our joint ventures, which we're able to work on things like indoor positioning and next-generation control systems so actually able to share the expense of that investment in R&D. From a sales and marketing aspect, it would show up, I think, maybe to the tune of maybe 50 basis points of go-to-market -- I'll call them go-to-market initiatives. So learning to sell to the large -- very large projects. Learning to sell to very large accounts around the world. It's really new kind of territory for us in selling to these -- a different selling model. From a G&A, okay, that'd be a smaller amount. But as we start to think about how do we rearchitect ourselves today in order to support a business in the future that's going to be that 55% of revenue, I think the -- arguably the systems and the plumbing are going to have to evolve and transform along with the business composition. So you add that up, and I think you'd have 2% to 3%, maybe 2% of the OpEx that I would put into that more new horizon category. And so every 1% last year would be $26 million. So $26 million times 2 52, call it $50 million roughly of spend today I think, is really looking at stuff that's multiyears out in nature, and if it biased anywhere, it'd probably bias a little bit more on the up than the down.

Steven W. Berglund - *Trimble Inc. - President, CEO & Director*

Just couple quick adds to that, Rob. First of all, I don't think we really portfolio manage that way. I know there's a lot of portfolio management models that say we should be targeting X percent of new product development. I think particularly with hardware and software now, my challenge to a software team is innovate for free. We started that Microsoft HoloLens project with 3 people, and in a period of 3 months, we had our first prototypes. That gives us additional confidence that we're investing in the right way. So I think in the software world today, it is -- the $100 million missile launch program is failed to start out with. That really -- the right answer is, how do we make new bets in a way that we can quickly evaluate whether they're working or not. Hardware a little bit different story, can't quite do that yet with hardware, so those tend to be more expensive development efforts.

Ann P. Duignan - *JP Morgan Chase & Co, Research Division - MD*

Ann Duignan, JPMorgan. I'd like to first ask a question on the buildings and infrastructure side. With Viewpoint and e-Builder, traditionally, you've made smaller bolt-on acquisitions. You allowed the businesses to pretty much be decentralized, run themselves. But with these 2 large acquisitions, what's your sales force strategy going to be? And how are you going to incentivize the sales force in order to accomplish the cross-selling and the goals and targets that you've set?

Unidentified Company Representative

Well, let me start and then maybe pass the mic down the line. So first of all, I think we're going to be a little careful today. We do not yet own Viewpoint, so I think being too prescriptive here would be inappropriate under the circumstances. I would say the default here, kind of starting

with the default and then we build on the default, is that what we've acquired in e-Builder and Viewpoint are 2 relatively defined areas. e-Builder very clearly is aimed at the owner. That is not historically a place where Trimble has put a great deal of focus. So on a go-to-market there, that one's relatively easy, which is keep e-Builder focused on the owner, asking the question, what else does Trimble have in its portfolio that e-Builder could bring to the owner market, and then as Ron had in his presentation, the other points of expansion for e-Builder would be international, first of all, okay, a little bit to be determined. That one, we would probably take on more of a Trimble persona, but not yet worked out. It's not the highest priority at this point in time. And the other category would be things like the state DOTs where Trimble does have a presence, e-Builder has some presence but could build on that. And there, I think it would be kind of a joint selling approach. So I don't think when it comes to e-Builder, there's a need to create a whole lot of new infrastructure or really change the plumbing. In terms of the incentives, it's very much they have been structured as e-Builder with some changes actually contributing some Trimble product. e-Builder is really focused on a P&L built around e-Builder because we think that the boundary lines are clear enough on that. Viewpoint, again, want to be a little more careful there but still the same sort of mentality. In both cases, we acquired aggressive, mature, very capable management groups. The intention is to build, in both cases, on the existing management groups and leverage those and try to minimize kind of the plumbing changes that would be required. So I think Viewpoint very much the same thing. But starting with the concept of cross-selling, they have access to these 8,000 contractors. I think there is the ability to ask the question what Trimble products could Viewpoint, in effect, bring to those 8,000 contractors. So I think there's a lot of opportunism here, but I don't think it requires what's called radical organizational surgery to make it happen. I think it can be -- happen -- a lot of it at the margin. And again, while -- you raise the question of incentive. The incentive for Viewpoint would still be kind of the same structure as e-Builder built around, a view of them as a business and what they can do over the next few years as a business. So I would say, management groups give all indications of wanting to say execution risk in both cases is comparatively -- on a relative scale, pretty low. You guys want to add anything? No?

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Rick Eastman at -- from Baird. So just as a follow-up to that, maybe direct this at Ron and [Mikalis]. You both kind of commented, I think e-Builder has been in business 23 years and 40 years at Viewpoint. And both commented, both these gentleman commented about the acceleration and the adoption rate of the technology over the last 4 years because, obviously, given the revenue size, it maybe doesn't suggest 23 and 40 years of life. So my question is, the adoption rate is accelerated with the technology. It's also correlated to the rate cycle. So -- global rate cycle. So how much traction do both businesses have in terms of the adoption rate? As we move directionally -- the rate cycle moves directionally maybe against the global construction industry. And then I have a follow up for Rob Painter.

Manolis E. Kotzabasakis - *Viewpoint, Inc. - Chairman and CEO*

Maybe I can start and you can pick up from there. So I think, in my experience, different industries adopt technology based on a number of factors outside just growth and what it means. So in construction, right now the prevailing factor is the ability for the end user, a construction worker, to be able to use technology when it was not possible before. We all today have mobile devices, small devices like this, so that we can use and -- deploy and use technology, get information about a project, the financials, introduce a change or communicate with colleagues around the company or the team that is working on the same projects to be able to do things that we were not able to do before. So this is the right time for the construction because of the cloud and mobility and the ability of the workers who were not able before to use technology. If I contrast what is happening in construction today with my previous experience in the process industries, the end users were already enabled. They had access to PCs and desktops and laptops, and they could use technology in a much easier way. The construction industry was not in the same position because of the mobility of the workforce and the composition of the workforce. So the demand right now for efficiency in using capital, the impact of the owners requiring certain return on investment is making contractors, which is the large majority of the Viewpoint users, to use technology in ways they have not done that before. So I'm not really seeing a significant impact or any impact the next few years that I can see from any cyclicality or downturn or whatever might happen in construction. The demand for efficiency and the improvement in use of capital is so high that the use of technology will become very, very important for many years to come.

Ronnie Antevy - *e-Builder, Inc. - CEO and President*

So -- and I would add to that. So the segment we serve, which are these owners, first of all, the types of owners that are our clients, we don't see a lot of cyclicality in the construction that they do. If you are a health care or if you're an educational institution, you're just -- you're building straight

through. And so I've actually seen that. '08, '09, '10, for us, were actually very good growth years, believe it or not. Our best growth years were '08, '09 and '10, believe it or not. So you have -- at least with the facility owners, I think you will see a consistent type of clients that we have are spending on a constant basis. And I think what's changed, what's caused the acceleration is actually the downturn in the Great Recession. So the Great Recession caused these facility owners to say, "We need to be more efficient with our use of capital, and we need to pay attention to what we're doing." So prior to 10 years ago, you didn't see owners getting too interested in their capital expenditures when it came to facilities. They left it up to the contractors and the various people in the supply chain. So they're -- that's really what's driving this transformation. I don't think it will be impacted by rates so much for these types of owners.

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

And then just a quick one for Rob Painter. Can you speak to -- oh, he's over there. I've been looking around here. He's hiding. Just a quick question around the incremental margins that you kind of used to forecast out to 2021. And I think you said 25% to 35%, obviously inclusive of 3 points of acquired growth. But without the luxury of modeling acquired growth when you're on the sell side, does the core business with the mix shift towards software, if you were to model just the organic growth out to 2021, would you use an incremental that's more like 35% to 40%? Or what number would you use for the organic growth out to 2021?

Robert G. Painter - *Trimble Inc. - CFO & Senior VP*

(inaudible). So Rick actually gives me an opportunity to say something that I probably forgot to in my remarks. So actually, on the screen, I talked about 25% to 30%. I think 25% to 35% is in a reasonable -- is a reasonable range as we get more software-centric. What I set context for is that it's our intention here in the next quarter or so to move to a non-GAAP revenue metric. So in terms of complementing the metrics to better characterize the Trimble results and the Trimble story, I think that's an important change for us to make because I think you all really struggle to make sense of the acquisitions and the impact that, that has, the deferred revenue haircuts and how that compresses. Less of the compression of the margin -- or the revenue because the revenue is large enough, but more like the one-to-one impact down to the bottom line. I've been asked by a few of you people, what's the deferred revenue haircut? Well, that's a problem. If this room doesn't understand that, I can correct that by moving to a non-GAAP revenue number. So what you saw essentially was a -- literally was a representation of our plans on a go-forward basis to go at a non-GAAP revenue. So what the number you would see that was on the screen would be reflective of organic and inorganic. Because when we move to that measure, it will eliminate that noise that you see today from the M&A. So your question back to me is going to be, "Okay, why 25% to 30%? As you get more software-centric, couldn't you move that north of that?" And I think the answer is yes. Now if the question starts to become, what's -- do you move those incrementals to 40% or above? My calibration of that would be on what's the growth potential of that given business. If you believe the data on the screen that we've got a large global market opportunity in some of these businesses, let's take a software business that we have, one of Roz's businesses in construction. If you believe that we've got that global opportunity investing in the go-to-market capabilities and the localization of that software for a given market, that's going to take you off of that 45%, 50% incremental and get you down into the 30s. To the extent that, that business is mature and actually isn't finding its way to penetrate adjacencies or new markets, then I think you do tend to take out a different playbook, and you're saying, "Okay, now I need to look for higher incrementals if the growth isn't available." And that's where I see the trade-off. So if we can generate the growth that we talk about generating, especially higher towards the 9% on the company level, then I think the incrementals play out there because that's going to give us conviction to keep putting that investment back into the business. Does that help?

Richard Charles Eastman - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

I think so. So if 9% -- so 6% to 9% on the organic -- so take the high end of the organic growth rate at 9%. Suggestion would be, on that organic, that you would manage to something like 35% incrementals, whether it's go-to-market investment, whether it's R&D investment, and then we would slide down a little bit -- we could slide down to 25%, really more managing the organic growth for the top line.

Robert G. Painter - *Trimble Inc. - CFO & Senior VP*

I think that's very fair characterization. Depending where you are in that growth range, I think, will really drive where we try and stick the landing on the op leverage.

Colin William Rusch - *Oppenheimer & Co. Inc., Research Division - MD and Senior Analyst*

Colin Rusch from Oppenheimer. As you look at kind of these enterprise solutions in your target end markets, I'm wondering how you guys think about consolidation in those end markets, how much you're enabling and then what the underlying assumptions are in your organic growth with consolidation and kind of the aggregation of capital into some of the larger platforms in those target end markets.

Unidentified Company Representative

You mean...

Colin William Rusch - *Oppenheimer & Co. Inc., Research Division - MD and Senior Analyst*

I'm talking company-wide. I mean, if we're looking at this as fundamentally an efficiency play and a productivity play, looking at how the agricultural industry or the transportation industry or the construction industry is getting more efficient, that's -- and if you are getting more efficient from enterprise solutions, you should see consolidation...

Unidentified Company Representative

Okay. So we're talking about construction, agriculture and the like, consolidation. Yes. So I think starting with construction, which I think maybe is the -- in some ways, has the clearest dynamics. So I would characterize construction as potentially very Darwinian in terms of how it reacts to the technology because contractors either win a deal or they lose a deal, whether -- it's binary, it's a 0 or a 1. And if you lose enough, you don't -- you cease to exist. So I think inherent in construction, in terms of what we're selling here, in terms of the technology argument, the transformative technology argument, inherent in there is the sense that there will be industry consolidation, that the industry will consolidate because the efficient will prey upon the less efficient. Now current circumstances are probably disguising that because we're back into a mode as we were in 2007 a little bit, that every contractor is a genius. They all have 2 years' worth of backlog, and they're all geniuses. Well, when things slow, they don't necessarily have to go bad, but when things slow a little bit, I think there's going to be a reckoning here, and the Darwinian forces are going to play out. So I think that there will be a couple of trends here. One is a tendency towards consolidation. The more efficient -- not necessarily the biggest, but the more efficient will tend to be the points of consolidation. But then I think that there will be a flow of leverage and a flow of power within the construction industry as well, which is towards the owner because as Ron pointed out, owners will have more transparency. They'll be more active participants through the entire construction process because they'll be able -- they'll have more tools in which to participate. The other group that -- personal view is that the software-form general contractor is probably going to become more powerful because they can capture all the economic benefits from technology. So I think there will be some structural changes within construction, but yes, the trend will be towards consolidating around the more efficient. Agriculture, I think that they're all kind of pointed to a statistic that says, consolidation is already occurring on the farm. That's been happening for a period of time. I think it will play out in a different way than construction. It will be much more slow motion. There isn't the same -- there aren't the same kind of drivers. Technology will certainly be a piece of it, maybe not the sole driver, maybe unlike construction. And I would say, transportation, I guess, would be a contest whether the technology is driving consolidation or whether it's the regulatory load that's driving consolidation. Did I get that right?

Unidentified Company Representative

Yes, I think well said.

Unidentified Company Representative

Okay. So I think, yes, I think the trend in all 3 of these major industries are towards more consolidation and bigger participants, which I would say, in general, probably is a benefit to Trimble, although that might be arguable.

Colin William Rusch - *Oppenheimer & Co. Inc., Research Division - MD and Senior Analyst*

And I guess, for Michael, how much of that consolidation is impacting your growth trajectory? Or how much is being driven by more business aggregated into those larger platforms?

Unidentified Company Representative

Do you mean [Darryl]?

Colin William Rusch - *Oppenheimer & Co. Inc., Research Division - MD and Senior Analyst*

No, no. I'm talking about the financial production out to 2021. Like if we're looking at 6% to 9% organic growth, how much of that is going to be underpinned by consolidation? And how do you think about that?

Michael Leyba

I think it's a relatively modest amount that impacts that. I don't know that, that's a fundamental shift or driver. It certainly is, I think, in our favor, the extent to which that happens, right? The larger the farm, the bigger the value proposition applying to technology. The larger the construction company, the -- often the more they want to work with us directly. You can kind of go market to market. But I don't think it's enough to sort of fundamentally shift it. I think it's that on top kind of opportunity for us.

Jonathan Frank Ho - *William Blair & Company L.L.C., Research Division - Technology Analyst*

Jonathan Ho from William Blair. Just wanted to, I guess, dig into the identity question that you guys posed. And how does this, if at all, change how you think about operating the business as well as how you think about communicating with investors relative to having chosen to be more of a technology company than an industrial one?

Michael Leyba

Well, I would argue we probably always have the same -- I would argue we always had the same level of self identification, but, okay, we're not going to win awards for our marketing, probably. From a communication perspective, I think there's a couple of things that I would see shifting. One would be, in the nature of some of the metrics. So I talked about the non-GAAP revenue to help better -- so if the folks can understand the acquisition impact more clearly, then I think they understand it today. The second would be also complementing operating income with EBITDA. The 606 accounting, as it starts to have you report a -- the unbilled backlog, I think there's some parts of the business where talking more about some of the subscription backlog -- or, I should say, bookings would be an important metric to complement. So if it's not on the whole company, I think maybe taking -- I think we could take the construction sector or frankly, could take the 2 deals in e-Builder and Viewpoint and provide additional clarity on some of the measurements. So I think some of that's on us. If we want to be seen more as a technology company, let's report more like one on some of the measurements. And I think that's fair game, and on us to lean into that. I think from -- what we hope -- one of the things we hope to accomplish today is to clear up what I believe are some of the misconceptions of us as an industrial. And I appreciate that many of our -- much of our coverage is industrial-centric. Much of our ownership base is industrial-centric. And so we'd see it as virtue. It's not an either or, a vice. I mean, we are a tweener. Are you industrial or are you technology? Okay, well, it's easy to say yes. We're applying technology that's

largely serving markets that I think most of us will characterize an industrial. When I think things get misunderstood is, is look at the asset intensity, a technology company or an industrial company. That's going to fall into technology company. I think that's probably not very debatable. We're delevering ROI, we're not adding capacity. I think that's technology company. So part of it -- I think a fair amount of it is just in our own narrative of the market. So that to me is what would get us more towards, I think, being seen for who we are as a technology company.

Jonathan Frank Ho - *William Blair & Company L.L.C., Research Division - Technology Analyst*

And just as a follow-up. I mean, if we take a look at some of the acquisitions that you've made, particularly with e-Builder and Viewpoint, is there a tipping point that you're looking for? Or is there sort of an urgency to get to scale that you can maybe speak to on the software side? And what does that mean for the business?

Unidentified Company Representative

Well, some of this is by design, and some of it is just circumstantial relative to timing. So I would say in both the case of e-Builder and Viewpoint, we had the -- we had to make a decision, were we a participant or were we a spectator? We chose to be a participant. And part -- but part of that is the reflection that in terms of available -- kind of assets available, chess pieces still on the board, there aren't that many. So I would say back to the theme of consolidation in a different way, I think the universe of technology providers to construction is going to look different in 2 years, and in some ways, it will look more like the end game. So I think that things will happen in the industry, our industry, over the next couple of years to bring, let's call it, an altered perspective. And I think we recognized that things were moving. Again, we had this choice of being a participant or a spectator. We chose to be a participant. And I think the other matter of timing here, and hopefully, you derive this from what both Ron and Manolis said today, is my personal belief, is that we called the timing relative to these particular 2 assets pretty well. I think they are both poised for a good 3 to 5 years here. We're counting on it, but I think it's actually deliverable. So I think the timing from an -- kind of an operational and performance standpoint will turn out to be a -- will turn out to have been pretty good on our part. But yes, so it's a matter of practicality and design. It was very strategic. It was part of a strategy that was laid out some time ago in terms of the pieces necessary to kind of bring the complete solution to the user. But the timing was maybe a little bit circumstantial in this case.

Gal Munda - *Berenberg, Research Division - Analyst*

It's Gal Munda from Berenberg Capital Markets. I have a few questions, if I can. The first one is just we heard a lot about the importance of dealers today, how they bring you to the market, especially in terms of adopting the technology. If you think about your network today, what proportion of dealers would you say are providing the value-added services, becoming more of consultants, and how much that helps you to increase the recurring revenues on the back of it? And is that a big driver going forward? And how much of education do you need to do in how you manage those relationships, if that's okay?

Unidentified Company Representative

Probably a couple of us who could answer that. Darryl, why don't you use the Vantage example?

Darryl R. Matthews - *Trimble Inc. - SVP*

So in the agricultural segment, we've -- we're transitioning the distribution channel to a Vantage network. And that Vantage network is providing more services and data analytics to farmers and integration of technology. That is in its infancy of where we're at today. We're starting to drive that. That's taking us some time to train and bring dealers up. But that's an absolute go-to-market model that we see in other segments, Ron's segment and in Roz's segment. We're going to repeat that within the agricultural segment. And we would like to see -- and the feedback we're getting from our customers is 15% to 20% of their revenue at a dealer level should be derived out of services and software, really driving that. And it drives an ecosystem of replacement of hardware at a faster pace. And then also this analytics driving new equipment purchases because they get a better visibility of what that will do. So we start to see that start to happen and drive.

Gal Munda - *Berenberg, Research Division - Analyst*

Okay. As a follow-up, I have a question about your cloud services that you mentioned. Just in terms to understand, do you guys also provide the infrastructure? And if you do [or is it] your partner, if you provide your own, is that part of the CapEx that we can see kind of expense coming through? I don't know if it's mixed between Rob and Doug.

Douglas R. Brent - *Trimble Inc. - SVP of Technology Innovation*

Yes. Yes, so for the cloud services, I was talking about it's -- no infrastructure is managed [inside] of Trimble. We still have some offerings today, PeopleNet does actually deliver infrastructure where it's value-added. But the vast majority of our spend today is AWS and Azure, and we'll probably grow that over time.

Robert Cameron Wertheimer - *Melius Research LLC - Founding Partner, Director of Research & Research Analyst of Global Machinery*

It's Rob Wertheimer, Melius Research. I had 3 sort of general questions related on building of the construction and what you guys have built in e-Builder and Viewpoint. How fast do you think this industry is going to change? I mean, is this a material change, whether you being with Trimble on this the next 5 years will decide the winners and the losers, and the competitive moat will sort of solidify? And then do you think that, that same thing is true overseas? Or is it more in its infancy? And do you need to be international [fast so as to] capture that gelling of the industry as it changes?

Unidentified Company Representative

Manolis (inaudible).

Manolis E. Kotzabasakis - *Viewpoint, Inc. - Chairman and CEO*

Okay. I think the demand for technology from construction being relatively new, sort of have been here for infrastructure for about 3 years, exceeds all expectations that I had before I came to Viewpoint. I see a tremendous demand. I mentioned the reasons earlier. The other reason that I -- we have seen a significant growth at Viewpoint regarding contractors and subcontractors is the fact that we are dealing with weak competition overall. And so we are seeing a lot of pickup in demand. Talking about the winners and losers, I think the next few years, it can be maybe 12 months, it can be 36 months. It's going to define the winners and losers in the technology providers for the construction industry. And I do believe, talking about the earlier question, that scale does matter a lot. It is very, very important. I think the tipping point of adoption of technology in construction comes by linking together the back-office systems with what is actually happening on the construction site and bring real-time data and information so that you can make -- our customers can make real-time -- optimized decisions is making all the difference that is required right now. In the same way as we've seen with transportation, companies like Uber, they have benefited by the ability to connect real-time users and supply. The same thing is going to happen in construction. So it's going to be, in my opinion, a lot of consolidation. It's going to be -- the next 2, 3 years is going to define the winners or losers. And we have a tremendous advantage as Trimble today, and I'm not Trimble yet, but we have a tremendous advantage to be the winner going forward, in my opinion, given all the technologies that you have for it today.

Ronnie Antevy - *e-Builder, Inc. - CEO and President*

I'll just add one thing. I have an interesting perspective, having been in the space for a long time. And I saw -- I watched in the '90s, a lot of people say what they're saying right now, and a lot -- hundreds of millions of dollars get poured into the industry in the hopes that it was going to accelerate. And that was a crazy time that things were going to happen overnight and they didn't. But I would tell you that this time is -- it's real. I think it's a combination of there's very large organizations using technology in the industry to get real value. The recession has changed how people think to my point before about spending money on capital for construction. And there's a different attitude now. So I think this is the time. I do think

that this is a slower-moving industry compared to maybe other spaces, but there's a definite acceleration now. And I would agree with Manolis and Steve that it's the next 2 years, 3 -- it's a small window of time now that something is going to happen.

Roz D. Buick - *Trimble Inc. - VP*

I'll just add a little bit to that. So I think one thing that's important now, too, is this Constructible BIM, making it possible for blue-collar BIM to actually take place. And in fact, a level of frustration with white-collar BIM to date has happened in the market. But I think it's also to use a North American phrase, circling the wagons here a little bit between the owner, the general contractor, the specialty trades and steel, concrete, all the pieces that matter in delivery of the project. Putting that process control at the ground where the work is done, all the way up through to the actual dashboards that an owner can see is truly something different and will accelerate this market. We've been in construction a while and we know how to do point solutions, but I think this is the realization that the circling of the wagons is the way to go here.

Corinne Jenkins - *Goldman Sachs Group Inc., Research Division - Research Analyst*

This is Corinne Jenkins with Goldman Sachs. You talked a lot about the autonomous opportunity across your markets today, but I was hoping you could touch a little bit on how you're thinking about that opportunity in automotive given the recent GM relationship.

Unidentified Company Representative

So I was at a conference in Munich a couple of months ago that was really very heavily automobile industry-focused. And I'd say, today, they don't still have the answer to what they want. Clearly -- and I think if they were sitting in the room, they'd mostly agree with that statement. We have some technology that's clearly valuable to them. So that Darryl talked a little bit about the -- I may not have the number right, Darryl, help me, 90,000 subscriptions to correction services. We have -- Trimble today has, by far, the best GNSS correction service, bar none, globally available, super fast and heavily used in agriculture today, and the automotive guys are looking at that. And without commenting on specific deals we have, that's certainly an asset that they're very interested in. The inertial stuff that Ron talked about is of heavy interest to the automobile industry, and today, that's widely -- Trimble systems are widely used for truthing, getting the objective truth for an autonomous car, knowing where it is. And that truthing market may exist still for quite some time in the future as autonomous cars roll out. So I think we have a bunch of technology plays into autonomous vehicles today. As I say, this -- GNSS corrections is a very -- I think, a valuable asset for them and inertial systems. And we'll see what -- how their needs evolve because, honestly, I don't think they know today.

Unidentified Participant

Just to follow up on e-Builder, if I can. When we looked at -- some of your competitors previously talked about the owner, operator market. They said it's very small because it's very regional-focused. So sometimes, you need a lot of customization or localization in order to make the product. Now when you think about taking that product internationally, like you mentioned, do you expect some investment to be needed in order to do that localization? Or do you think your technology is a bit more transferable?

Ronnie Antevy - *e-Builder, Inc. - CEO and President*

So it's a good question. As we go international, there are certain markets that will require little to no change in the product, and then there are other markets that may require some localization or currency changes and things of that nature. And we'll explore those markets one by one. That's kind of our prioritization process that we're going through to figure out which markets we go to, where the biggest opportunities are. But I don't anticipate -- I would say that there are several international, very large, good sized markets for us to go after in the next several years before we would be tackling a small regional owner market, for example.

Unidentified Company Representative

I think that was declared to be the last question.

So just to summarize in a few bullet points here.

Times are changing. The markets Trimble serves are changing. Trimble's well-positioned to be a central influence on those markets. And we have the capabilities and organization to pull it off, in my view.

Now to the important matter, there will be a reception right outside here and flowing into the lobby. There will be food and drink, I think, nonalcoholic, parenthetically. So please have at it.