07162018 Inspire Judson Althoff

**Inspire 2018**

**Judson Althoff**

**July 16, 2018**

(Video: Microsoft Anthem)

**JUDSON ALTHOFF:** Good morning, and welcome to Microsoft Inspire. I'm really excited to be here with each and every one of you, thank you so much for coming. I'm humbled and honored to spend this morning with all of you.

Listen, I am so excited about everything we have to share with you because we have such tremendous momentum together as an ecosystem. You can almost feel it in the room, hopefully that comes across to you in the video we just shared as well. But even more impressive is the opportunity that lies ahead, and Gavriella did a great job of sharing that with you and painting the picture going forward.

Mark my words, with all sincerity and honesty, there has never been a better time to be a Microsoft partner. I'm really excited this morning to share with you our FY19 vision, strategy, and plan for execution.

But I can't start this morning's presentation without thanking you first. For me, it's a must. If you think about it, FY18 was a landmark year for Microsoft and for our partners. We implemented and executed more change than the company has ever seen, and at the same time we delivered. In fact, you delivered more progress than the industry has ever seen. So, I want to thank you from the bottom of my heart, with all sincerity, for the hard work, the dedication, the grit, and the perseverance that you demonstrated, because without you, none of this would have been possible. (Cheers, applause.)

In FY18, we stepped forward with a very simple and straightforward strategy. We put the customer at the center. We put the right resource in front of the right customer at the right time, and it led to tremendous results for all of us.

If you think about it, the commercial model that we implemented is resonating. The video actually does a great job of telling that story. If you look at the customer examples -- Starbucks, Unilever, Dun & Bradstreet, Kamatsu -- around the world, customers are better on Microsoft and our partner ecosystem. You have to give credit to the focus on our industry strategy. Partners are the beginnings and the ends, the first and the last mile of our industry strategy. You bring forward the differentiation that we need to make our customers' digital transformations come to life. That's your work, you should be proud of it.

We play these videos to fire you up because they fire us up. We're so excited about all of the success you're delivering.

If you think about the technical depth that we've brought forward, we trained more than 400,000 individuals on cloud competencies over this last year and brought forward more strength to our customers, enabled us to code better solutions faster, if you think about it. We can actually roll up our sleeves and help customers get done what they need to get done to bring their visions to reality.

The customer success resources that we brought to bear, Microsoft and partner resources coming together for a common goal, bringing cloud services to life inside of our customers. It's not about selling them product anymore, it's about making cloud services really transform their business and changing the way they operate, making their businesses better.

We invested a tremendous amount in digital selling over this last year, and we delivered more than 3 million leads to the partner ecosystem through our access-based marketing and demand generation systems, through demand response, and we're going to deliver even more this coming fiscal year.

But make no mistake, the crown jewels of this commercial model are the One Commercial Partner Program. It really enabled us over this last year to build more with you, in fact, five times as many solutions are available today versus one year ago today in our commercial marketplace. That's all of your hard work and effort building code, investing in intellectual property, differentiated by industry to make a difference for our customers.

We, then, took those solutions to market -- tens of thousands of wins across these new solutions sold with you, effectively, to deliver more for our customers.

So, again, this commercial model is resonating and it's going to remain steadfast and be a consistent part of our strategy moving into FY19.

I want to spend some time on this paradigm shift that we're seeing. Make no mistake, the intelligent cloud and the intelligent edge, it's real, it's here, and it's now.

I'll start with the edge. Look, people are experiencing life through technology. Think about the last concert you went to, in effect. I'd be willing to bet that the person to the left of you was watching the concert through their mobile device, probably the person to the right as well, and if you're willing to admit it, you may have been doing it yourself. People experience life through technology.

But it's more than just mobile devices -- it's about sensors and sensor fabrics, it's about ambient intelligence, gathering, collecting, producing voluminous amounts of data. But you have to reason over that data to actually drive real-world impact. That's where ubiquitous compute comes into play.

Of course, you need ubiquitous compute in the cloud, but you also need it at the edge in order to make real-time decisions. That's what empowers us to build artificial intelligence that allows the human experience to carry forward better than ever before. These people-centric experiences, the ubiquitous compute, and the AI capabilities that we're building together, will allow us to shape the world of computing for the next decade.

Again, mark my words, if you think about our industry and if you think about the progression of compute from host to client-server to internet and .com architectures, the new wave of compute, the intelligent cloud and the intelligent edge, will shape everything that we build together for the future to come.

In fact, a great example of this is the work that BlueMetal has done with the Burlington Northern Santa Fe Railway. This is a company that's been around for over 100 years. We've had railways far longer than we've had a computing industry. But the way they run their business today, the way they improve their efficiencies, increase safety, bring products to market faster for their customers, all happens through the intelligent cloud and the intelligent edge.

This is far more than drones collecting data and sending it back to the cloud. It's actually real-world processing; the computation, the thinking, the reasoning is happening at the edge. The power of edge computing connected with the intelligent cloud is what brings this transformation to life for BNSF.

In fact, again, it is happening now, it is here, it is real, and the most important thing I want all of you to understand is it is your opportunity, the intelligent cloud and the intelligent edge will create more opportunity for the Microsoft ecosystem than we have seen in our history.

Satya will spend more time on this on Wednesday when he addresses you and talks to you about all of the areas where we're developing new solutions and thinking forward the future of compute, but I want you to understand this is not future-speak, it's not some science fiction story, it's here and it's now and it's up to us to go find these opportunities in the face of our customers and really bring them forward to bring their visions to life. It should inspire us -- no pun intended -- it should fire us up about making a difference for our customers.

This, then, fuels, very intentionally, how we develop at Microsoft. We focus on six solution areas across gaming, modern live, modern workplace, business applications, apps and infrastructure, and data and AI.

These are intrinsically linked. Again, they're very purposeful. They're meant to represent how we think about technology throughout our lives. In fact, if you think about it, I bet the very first computing experience that you ever had, your first taste of technology started with, "Hey, let's play a game." That gaming experience, touching technology, then actually turned into how we might want to experience technology and life and fueled how we wanted to carry the same into business.

In fact, our work in gaming has really inspired how we think about education and reaching the future of digital natives moving forward.

One of the most impressive stories that I have to share with you in this space is how the Department of Education in Sao Paolo, Brazil -- just let me pause for a second to just tell you what an amazing school system this is. They have 4 million students, 230,000 educators. So, to reach the youth of the world, the youth of Brazil and actually bring them forward into a modern way of thinking and really empower future generations, takes a lot of hard work, takes a lot of ambition, and our partner, Futura Code, has really done a fantastic job of making this happen.

They begin by teaching the educators a new curriculum, a new way of bringing forward education through Minecraft, touching students, inspiring them, teaching them how to move forward. Textbooks are all delivered through Azure in a digital way. Of course, Office 365 is rolled out system-wide across the Department of Education, touching all of these students around the world, Dynamics 365 is a fabric of their student information system, and they're even using artificial intelligence, Azure Machine Learning and our Cognitive Services, to drive forward a reduction in dropout rates and predict risk mitigation for dropouts so that they can rescue a student that might be in need before they get into trouble.

This is the future coming forward, and it starts with gaming and then leads in terms of modern life. The very best way to experience modern life is to step into a Microsoft Store. And I know that many of you have adopted Microsoft Stores as your own, and I would encourage you to continue to do this if you have a store in your local geography because, in fact, our customers come into the Microsoft Stores to see the very best of modern life come into being, come into real form, and then actually take those technologies into their business.

In fact, my favorite story here is the work that we've done with Johnson Controls, partnering with Qualcomm and Samsung. Johnson Controls is thinking forward the future of smart home technology, and you can see this today, in fact, in our Microsoft Stores. Starting next week, the beginning of August, these same products that we've built together as a partner ecosystem then become available to produce modern life scenarios.

It is our belief that the technology you love in your life is the technology that you'll want to carry into the workplace. In fact, it is why we've invested in a freemium version of Teams so that your small business can use Teams, you can take it into the corporate enterprise and for up to 300 users, you can actually experience the power of collaboration for free. So, whether it's your book club or whether it's a scouting troop, you can then use that same technology you love in life and bring it into the workplace.

Modern workplace has seen the growth of this ecosystem for many years now, and it started on the heels of Office 365 and last year all of you made Microsoft 365 spring into life. The growth we saw there was unparalleled.

But one of the best stories that really, to me, exemplifies what it means to empower people is the story of the Gauteng Provincial Government in South Africa.

We have a partner called Talis there that is 100 percent women-led. They're a black empowerment economic entity in South Africa, and they invest in thinking forward strategy and innovation in the public and private sector. They have worked with the Gauteng Provincial Government to actually start training 25,000 government employees to see forward their modern workplace with Microsoft 365 and Windows 10, Office 365, our Enterprise Mobility Suite -- so that the people that come to work each and every day for the government actually can use the very best that technology affords them.

And, again, it's brought to life through a partner. Hopefully, you're starting to see the trend. All of these solutions, the products and services, they don't become valuable to customers without the great work of our partners.

That, then, fuels how we think about business applications. Using a business application to run your supply chain or your customer engagement system should be as enjoyable as the technology that you use at home. It should be as fun to use and fun to embrace as Minecraft is for students.

Our business applications solution area is growing like no other, and if you follow Gav's suggestion earlier, this thinking forward about how we'll have trillions of dollars of market opportunity to capture, there is no better place to invest than in our Dynamics 365 business today.

Look, I know a lot of you come to me and say, "Look, Judson, if I wanted to build forward my Microsoft practice, if I wanted to really grow and expand this next year, where should I do it?" Without a doubt, it's investing in a Dynamics 365 practice.

Our largest partners have recognized that so much so that they've actually acquired a lot of our really strong smaller regional partners. I would implore you to invest in a Dynamics 365 practice because we've never had a stronger year than this past one in business applications, and it will only be usurped by this next year and the years to come.

To really kind of illustrate that, I want to tell you about the work that we're doing at the Royal Bank of Scotland. The Royal Bank of Scotland is one of the largest financial institutions in the United Kingdom. They're thinking forward and reimagining the future of financial institutions and banking. Our partner, Varipark, has enabled them to do that. They've trusted in Varipark because Varipark allows them to see that future forward based on all the experiences they have in the financial services industry.

I want to share with you a video, though, of why Varipark chose Dynamics 365. Again, it's a huge growing area of our business and it represents tremendous opportunity for all of you. Please roll the video.

(Video: Varipark)

(Applause.)

**JUDSON ALTHOFF:** Our Applications and Infrastructure solution area has fueled tremendous growth for Azure, and that story is brought to life by example through the work that we're doing with Bendigo Health in Victoria, Australia.

Our partner, Mexia, has really helped them embrace the cloud by taking all patient records to the cloud to enable physicians to provide real-time guidance to their patients through Windows 10 and Surface devices.

There's tremendous opportunity here. You all know it. We're lifting, shifting, modernizing applications to the cloud, and the very best partners are the ones that are leaning forward and not doing just one or two, but six, eight, 10, 12 different workloads into the cloud on Azure. And, again, huge growth area and great representation for all of us.

That leads us into data and AI. Those of you who know me well know that this is my favorite of all solution areas. Look, I love data. Data is what fuels really everything we do. Many people call it the "new oil" if you will, I find it to be the new energy -- the new energy for all of us and how compute will be shaped moving forward.

But, look, there's one point that I really want to make here about this that you have to take to heart because it actually guides how you work with customers in this space.

Look, everybody wants to talk about AI. Everybody wants to talk about the new cool virtual agents, the new cognitive service, the new computer vision technology. But, honestly, without data, all you will do with that fancy AI technology is make mistakes with greater confidence than ever before.

You have to help customers build a data estate, and that's what this example that I want to share with you next has really represented.

Majid Al Futtaim is a retailer in the Middle East. They have been working with TeamBase to help them build out the data estate, build out AI capabilities on top of their data estate to run their business better, faster, and more efficiently than ever before. And they've also worked with Neal Analytics to have that technology take root in the line of business.

I want to share this video with you because, once again, it illustrates the intelligent cloud and the intelligent edge is real, here, now, and it represents opportunity for all of us. Please roll the video.

(Video: Majid Al Futtaim.)

(Applause.)

**JUDSON ALTHOFF:** So, it's really fantastic work that's being done by our partners. They've basically taken all of the Power BI KPIs at Majid Al Futtaim and turned them into Cortana Skills, really enabling you to communicate with your business. Again, it represents that the future is here, it is now, and it is our opportunity.

Those, in fact, are our six solution areas and they fuel the intelligent cloud and the intelligent edge, and in the consumer space, they allow us to deliver these empowered experiences, which then in the commercial space fuels how we think about digital transformation.

Again, make no mistake, these solution areas are intrinsically linked. They represent how people experience life through technology.

And the four commercial solution areas fuel how we drive digital transformation for our customers. I know many of you are invested deeply in this. Again, it is here, it is now, and to represent that, just take a look at all of these logos on this screen. These are breakthrough wins, breakthrough reference cases, stories that you have brought to life across the ecosystem.

Again, these are logos that represent the "who's who" of the Fortune 500 around the globe. Behind every one of these amazing customers is an amazing partner. In fact, in most cases, more than one amazing partner. It's the power of the Microsoft ecosystem that is, frankly, unmatched in this ecosystem, and it is why I am so humbled and honored to be here with all of you today, because you make this happen.

It's become a bit of an Inspire tradition for me not to just show you some videos and some screenshots, but to actually show you real technology being used by real customers brought to life by real partners.

I want to actually live true to that tradition and share with you our next guest. I'm delighted in just a few minutes to introduce to you a couple of the leading executives from Carlsberg Breweries. I know what all of you are thinking, "Gosh, Judson, we get it. We're here in Vegas, you want to talk about a beer company." Look, I have to admit, I've consumed a Carlsberg or two -- not today, mind you -- but I am a fan of the product.

Honestly, it's far more than beer that I want to talk to you about this morning. Carlsberg's story really brings to life digital transformation like no other, beyond the fad speak, beyond the vernacular of digital transformation, it's real work that they have done.

The company has been around for more than 150 years, and they've given back to science. They invented the pH scale and contribute broadly to the community.

Let's roll this video and get in the mood and the spirit of Carlsberg Breweries, and then I'm going to show you how they're using Microsoft technology, how they're working with Microsoft partners to bring transformation to life in the real world.

(Video: Carlsberg)

(Cheers, applause.)

**JUDSON ALTHOFF:** Ladies and gentlemen, please join me in welcoming Sarah Hayward, the chief technology officer of Carlsberg. Sarah, thanks for being here. And Jochan Forster, who's the director and professor of yeast and fermentation at Carlsberg Research, otherwise known as Dr. Beer.

Welcome, Sarah and Jochan, I'm really excited to have you guys here. As I shared with the audience, my favorite thing to do is actually to show technology happening in real life to drive real results. Sarah, why don't you kick us off by telling us a little bit about Carlsberg?

**SARAH HAYWARD:** Sure. So, some companies have to search for their purpose, ours has always been there. Brewing for a better today and tomorrow.

Carlsberg was founded in 1847 in Copenhagen by J.C. Jacobsen, and he instilled our culture of innovation. Today, our beer is enjoyed in over 150 countries worldwide.

To continue our journey, our strategy has three key priorities: To strengthen the core, building on our No. 1 and 2 positions in key markets. To position us for growth, investing in segments like alcohol-free and craft and specialty, where we see long-term opportunities for growth. And, finally, to create a winning culture, to invest in the capabilities we need to deliver on our choices.

To do this we've been on a huge technology transformation, creating a digital platform to enable us to embrace new business models, and to connect in new ways with our customers and consumers.

We've had to reimagine our infrastructure landscape. We've reengineered the network, we've migrated our enterprise solutions into the cloud, we've implemented Office 365 and rolled out Windows 10 across our entire ecosystem.

**JUDSON ALTHOFF:** Awesome. So, Dr. Beer, if I can all you that, Jochan. Tell us a little bit about what you do.

**JOCHAN FORSTER:** Well, I probably have the best job in the world. We're doing science to make high-quality and better beer. So, at the Carlsberg Research Laboratory, where I'm working, we're devoted to the science in beer. We have platforms working on barley, hops, brewing technology, and I'm responsible for the yeast activities for beers and alcohol-free beverages.

And, actually, one of the major achievements we had was at the end of the 19th century already, where we purified the very first pure brewer's yeast, and derivatives of it are today used in many of the breweries around the world. It's really fun to work at CRL, Carlsberg Research Laboratory, and we are pursuing perfection every day.

**JUDSON ALTHOFF:** That's awesome. And I have to say, as a consumer of the product, I think the science is paying off.

Listen, fantastic progress that Carlsberg is making as a business, and it is grounded in technology and science. I do want to share with everybody how you're actually bringing the transformation to life. Why don't you take us over to your lab and show us a little bit of beer science?

**JOCHAN FORSTER:** Yes, please join our lab, Judson. We actually brought you a lab coat.

**JUDSON ALTHOFF:** Got it.

**JOCHAN FORSTER:** So that we're able to --

**JUDSON ALTHOFF:** It wouldn't be a keynote without at least one costume change.

**JOCHAN FORSTER:** We need some help in the lab.

**JUDSON ALTHOFF:** Great, thank you.

**JOCHAN FORSTER:** There we go.

**JUDSON ALTHOFF:** Much, much better jacket, don't you think? Good. How do I look?

**JOCHAN FORSTER:** Fantastic.

**JUDSON ALTHOFF:** If this keynote doesn't go well, I might need a job. (Laughter.) (Applause.) Good. Great.

**JOCHAN FORSTER:** All right, so let me take you to Teams and show you a fun example that supports our vision of leveraging one of our really important brands in the market to drive growth.

**JUDSON ALTHOFF:** Cool.

**JOCHAN FORSTER:** We had actually at the end of last year, the 25-year anniversary partnership with Liverpool FC, and we wanted to do something really cool. We brewed a beer --

**JUDSON ALTHOFF:** (Cheers.) Fans!

**JOCHAN FORSTER:** -- from hops unlike any other. And we called this the Red Hops Project, and if you go here into Teams, you can see it here on the left-hand side.

**JUDSON ALTHOFF:** Awesome, very cool.

**SARAH HAYWARD:** To bring this to life in Carlsberg, we brought together a diverse, cross-functional team. We brought people from the science laboratories in their lab coats. We've had people from marketing. We brought together operatives from the production line. Our goal was to brew a special beer, infused with the spirit of Liverpool Football club.

**JUDSON ALTHOFF:** Very cool. So, Jochan, how do you use technology to actually help this really diverse workforce come together?

**JOCHAN FORSTER:** So, let's again go into Teams. Actually, at the start of the project, we went to Anfield, the Liverpool stadium, and we got some soil out of the ground of the Liverpool FC stadium.

We took this soil all the way up to Denmark, to Copenhagen, to Carlsberg Research Laboratory and actually we used the soil, took it into our greenhouses. We grew the hops inside that soil and not only this, we also played 24/7 Liverpool FC games, videos, and sounds all the time. (Laughter.) (Applause.)

The end result is a really, really special beer that is grown and brewed to the sights and sounds of Liverpool FC.

**JUDSON ALTHOFF:** So, let me get this straight. You actually played a video of football games to the plants, Jochan?

**JOCHAN FORSTER:** Yes. And this is exactly right, actually. And there's an increasing body of evidence that when you expose plants to sound and music, that you promote growth of plants.

The end result here, again, is a special beer that is grown and brewed to the sights and sounds and spirit of Liverpool FC.

**JUDSON ALTHOFF:** Well, that's cool. Look, I'm sure there are many football fans here, we probably missed the queue on the French football team for the right beer for the World Cup. Anyhow, if you happen to be a fan of Liverpool Football Club, I can imagine how cool it must be to buy a beer that's infused with the spirit of the team itself. Pretty cool, pretty innovative.

**SARAH HAYWARD:** Pretty cool stuff. And this is the beer that we actually produced.

**JUDSON ALTHOFF:** Awesome.

**SARAH HAYWARD:** So, and you know Teams is really helping us unleash the creativity of a diverse workforce. I mean, this type of employee empowerment is driving productivity, innovation, and cross-team collaboration in amazing ways.

**JUDSON ALTHOFF:** Really cool. Really cool.

**JOCHAN FORSTER:** And I agree with Sarah. We can go back here into Teams into Project Planner. One of the important moments in the project was the harvest moment. Harvest the hops at the very right moment. And we used Planner, had all the teams that Sarah was referring to actually. We had the harvest event milestone, the marketing, bottling, brewing teams, research teams documenting the evidence for the use during the campaign.

We had CRL tested and inspected the hops we grew for quality and taste.

**JUDSON ALTHOFF:** Cool.

**JOCHAN FORSTER:** And so we have all the teams before, during, and after harvest. And we want to make sure they get everything right. So, let's invite them for a meeting. So, I go up here, copy the link task, the topic of the meeting, control-C, and I go here to the left to the meetings. Schedule a meeting. I give it a title, harvest, and I should spell it right -- harvest event. I want to have it in two days. On the 18th, time is fine. I control-V, paste the information I've just copied as the milestone we have to talk about.

And the team I want to invite is, obviously, the Red Hop Project team.

**JUDSON ALTHOFF:** Cool.

**JOCHAN FORSTER:** And schedule a meeting.

**JUDSON ALTHOFF:** Awesome.

**JOCHAN FORSTER:** And here we go. And just with a few clicks, I brought everyone together on the harvest, and over all their devices, and that's what you see here on the screen.

**JUDSON ALTHOFF:** Awesome. Cool.

**SARAH HAYWARD:** You know, Teams has all the right tools in the right places to help us bring this extraordinary project to life.

**JUDSON ALTHOFF:** That's awesome. And, look, I hope all of you are taking in, honestly, the way in which Teams has sort of been woven into the Carlsberg business fabric, because it's partners that actually bring that to life, and we have a fantastic group of partners working at Carlsberg that have taken Teams and actually made it the fabric for collaboration.

If you look at the way in which the workflow is laid out, the opportunity for add-ins, this is really a great opportunity for partners around the world to build into this notion of employee empowerment, Teams as the fabric for collaboration. So, again, another area to make an investment for growth for the future that pays off for customers big time because it actually helps them get real work done.

So, Sarah, let's switch gears a little bit and talk shop. You've done a lot on the operational side to really rethink the way IT supports the business. You're taking SAP to the cloud, you're working on DevOps scenarios. Why don't you tell us a little bit about what that's been like at Carlsberg?

**SARAH HAYWARD:** Sure. I mean, let's start with the migration into Azure. So, we've just finished migrating over 500 servers, and as you say, including our entire SAP landscape.

And we've done that not just to optimize the legacy environment, but to create a modern data platform -- so to enable us to work in a dynamic, agile, and flexible environment going forward.

**JUDSON ALTHOFF:** Right. So, it is a great opportunity, once again, for partners all over the world to really embrace what's happening in this application movement to the cloud. Taking SAP to Azure is a huge opportunity, also one which I would guide that partners make investments because what happens after the fact, actually, Sarah, is what you just mentioned, this notion of being able to have a true data estate, and that's where the real exciting things start to happen.

So maybe share with us a little bit of what you've been able to do with this data estate and how it's changed how you operate.

**SARAH HAYWARD:** Sure. So, let's walk over to the Surface Hub and we'll show you.

**JUDSON ALTHOFF:** Sounds good.

**SARAH HAYWARD:** OK, so we work with a lot of third parties to deliver our strategy. And we came up with this concept called the Digital Idea Brewhouse for Carlsberg. And here it is.

So, this is CPLAAS, or Carlsberg Platform as a Service, and here we can see an example where if I click on our security bot, this is a bot build in Microsoft Cognitive Services on Azure, and it's to enable Carlsberg colleagues to actually provide information on security rules and regulations.

**JUDSON ALTHOFF:** That's awesome.

**SARAH HAYWARD:** And if we click here, I can show you in GitHub. Here's the code bases that we used to actually build this bot. And I can click here. We can actually see the bot builder SDK that helps us to accelerate the development of this project.

**JUDSON ALTHOFF:** That's really cool. So, Azure's sort of become the foundation for the DevOps environment, and it enables you to use third parties to speed up the innovation at Carlsberg.

**SARAH HAYWARD:** Absolutely.

**JUDSON ALTHOFF:** Truly groundbreaking way of developing platform as a service that's unique to Carlsberg.

Lots of bots these days. Why don't you show us a little bit about what Carrie actually does for Carlsberg?

**SARAH HAYWARD:** Sure. Let's take a look at Carrie. So, do you want to ask her a question?

**JUDSON ALTHOFF:** Sure. How about something challenging in the security realm here like GDPR, cryptography, what can she do?

**SARAH HAYWARD:** OK. All right, well, let's ask her a question. I'll just maximize the screen. Why don't we ask her about cryptography?

**JUDSON ALTHOFF:** Sounds good. Yeah.

**SARAH HAYWARD:** OK. So, what are the cryptography rules for the network? We'll just send that message. And here we see sometimes there's a variety of categories, so if we pick cryptography, we can see here's a whole series of rules that our teams can use when they're designing features in the network.

**JUDSON ALTHOFF:** Awesome. So, anybody, whether it be a Carlsberg employee or a partner --

**SARAH HAYWARD:** Exactly.

**JUDSON ALTHOFF:** -- can actually jump right in, take the advice from Carrie, and speed up the development process.

**SARAH HAYWARD:** Exactly.

**JUDSON ALTHOFF:** This bot's providing real value to the human experience, AI and using it for really the benefit of the human experience. That's cool.

**SARAH HAYWARD:** Cool. So, finally, let me show you what we're doing on Power BI. So, this is the integrated supply chain scorecard for Carlsberg. To protect our IP, we've changed the metrics and inserted some dummy data.

But the fact remains, it's the modern data platform that allows us to present this via Power BI. In the past, we'd have quarterly, half-yearly reviews, people would have worked to pull this data together manually and presented it back via PowerPoint.

Today, we've automated those data sources and we can present it back via the dashboard. And here, you can see in one pane the customer metric, service volume, efficiency, so all in one place.

And if we drill down here, we can see there's maybe something going on here with customer churn. If we take a closer look, we can see in Europe they're actually doing very well, 0 percent customer churn, low cost of customer maintenance.

**JUDSON ALTHOFF:** Right on.

**SARAH HAYWARD:** Unfortunately, the story's not quite the same in Asia.

**JUDSON ALTHOFF:** Got it.

**SARAH HAYWARD:** So, higher churn, much higher cost of customer maintenance.

Maybe the insight here is we could take some lessons learned from Europe and really apply them to Asia to improve performance.

**JUDSON ALTHOFF:** Right on.

**SARAH HAYWARD:** It seems really basic, but this is actually helping us make better and faster decisions.

**JUDSON ALTHOFF:** That's right. And with that data estate that you've established, it's actually changing the culture of how Carlsberg can operate. I want you to take a moment to address the partners. Look, none of this, first of all, would have been possible without the great work of partners coming to life at Carlsberg and investing in the solutions that help Sarah and her team, but the cultural impact that you can help drive when you implement a solution like this is truly remarkable. Gone are the days of the half-yearly review meeting or the quarterly deep dive, and fast forward to the days of being able to make real-time, nimble decisions based on data that's live about the business, one area of the business teaching the other how to succeed, really drives a cultural transformation for Carlsberg. And that's the opportunity that lies ahead of partners. It's more than just implementing the tech, it's about actually driving a revolution inside of a business, and it fuels so much more.

Let's come back to this moment about churn, right? You see something like that, you get concerned and you may actually, then, want to use the data to influence how you develop product. Jochan, let's shift back to you. How do you, then, take the foundation here and think about transforming beer?

**JOCHAN FORSTER:** So, as scientists, we actually have struggled for a long, long time with how to predict actually how a beer will taste when we test yeast, barley, hops, and so on -- something we would like to know very early in our research project.

As a real-life example, have you ever cracked a new brand of beer and thought it really tastes different than you expected?

**JUDSON ALTHOFF:** I have to say, there's no worse way to end a bad day then to have a bad beer at the end of it. So, yes. How, in fact, are you going to use tech and data to make beer better?

**JOCHAN FORSTER:** Yes. So today, of course, it's with AI. We're trying the use AI and combine it with the development of novel flavor sensors to predict what the beer will taste like.

So, this sounds very simple as an idea, but it's actually pretty complex in execution.

**JUDSON ALTHOFF:** I bet. How are you actually using Azure Machine Learning to create AI-optimized beer?

**JOCHAN FORSTER:** Before I go into it, let me tell you. So, we actually started a pre-launch research collaboration about half a year ago actually together with you and two Danish universities -- Technical University of Denmark and Aarhus University. It was actually Aarhus University that develops new sensors, the Technical University of Denmark bringing the sensors into screening and fermentation vessels.

You at Microsoft helping to take the data we get from the sensors and analyze them with Azure, and of course we use it and we're testing it already. We have some of the core models or one core model presented here. It's a number of ML regression models. We can zoom a little bit in. It's the level of information we're sharing now right here. It's a Bayesian linear regression model et cetera, et cetera.

It's a big, big model, but it really, really will help us to determine how beer will taste like.

**JUDSON ALTHOFF:** Right, but I've got to honest with you. Do you really need this kind of complexity and sophistication for beermaking? What's actually happening inside of this model that allows you to produce a better product?

**JOCHAN FORSTER:** There will be kind of an iterative approach. So, we're going through general billions -- or millions at least -- millions of data points. We're going to test new barley variants, new hop variants, we're testing new yeast variants in our platform in micro little brews. We're generating a lot of data. We're taking the data into the core model. We will learn how this model will predict flavor in the beer later in our big processes. We will remodel, iterate, and so on until we really believe we have it.

The key, actually, here is now we are able to use these kinds of models to predict taste, and we can understand the patterns we see in the data.

**JUDSON ALTHOFF:** That's awesome. So, effectively, dramatically speeding up the process for creating better beer.

There are a lot of these product transformation scenarios, we have to think about how the data about the product can become more valuable than the product itself. That's what the partners that are helping Carlsberg have done in this case.

Trust me, when I say you can optimize anything with AI, if you can optimize beer with AI, you can probably help a customer optimize just about any product on the planet. The business has been around for 150 years, and Jochan is really bringing forward producing probably the best beer in the world using technology.

Now that we have this great beer, how do you bring it to market in a revolutionized way to better engage with your customers?

**SARAH HAYWARD:** Here's a prototype of our connected bar. This helps us engage with one of our key customers -- the bar owner. And this is amazing for the bar owner. This helps them with managing their bar more efficiently and driving profitability.

Judson, let's make you the owner.

**JUDSON ALTHOFF:** Sounds good. I'm trying out all kinds of new careers today, from beer scientist to bar owner, so why not?

**JOCHAN FORSTER:** So, Judson, what we actually see here inside the bar or down under the bar in the cellar, we have the DraughtMaster Module 20. It's a new keg system. We have developed -- the DraughtMaster development team at Carlsberg has developed a new type of keg, PET kegs instead of steel kegs. They're actually pretty light, particularly when they're empty, but filled, they actually still are 43 percent lighter than an actual steel keg.

**JUDSON ALTHOFF:** Wow.

**JOCHAN FORSTER:** They're all made for keeping beer fresh for a longer time.

**JUDSON ALTHOFF:** Awesome.

**JOCHAN FORSTER:** Once you've used these kind of kegs in the brewery or in the bar, we have six times longer freshness, 31 days to sell a really good beer of very high quality compared to a few days with a steel keg.

**JUDSON ALTHOFF:** That's fantastic.

**JOCHAN FORSTER:** So, the cool thing here, the beer is never exposed to air before it leaves the tap. You just squeeze the tap, there's no additional CO2, no additional gases, so the moment the beer comes out of the tap, it's the first time it sees the oxygen.

**JUDSON ALTHOFF:** Fantastic, very cool.

**SARAH HAYWARD:** So, this really helps the bar owner with stock management. It reduces their spoilage costs, and it helps them to stock a bigger assortment of beers.

What we're seeing is in markets where we have this equipment, bars show an 8-percent increase in sales, versus a 4-percent decline elsewhere.

**JUDSON ALTHOFF:** Awesome. How do you, then, use the technology to engage better with the bar owner, really your customer, serving the consumer?

**SARAH HAYWARD:** Let's have a look.

**JUDSON ALTHOFF:** Awesome.

**SARAH HAYWARD:** If we click here, we can log in and we'll log in with you as the owner. And we can see this is your overview. So, this shows your stock, we can see there's a low here on Carlsberg and special brews. We can see quality. There's an amber here we might want to come back to.

You can see the promotions for the World Cup football promo, for example, messages and sales.

**JUDSON ALTHOFF:** Awesome. So, can we drill into this area where we have a caution or a warning?

**SARAH HAYWARD:** Sure. Let's go into the quality section.

So, here we can see we're actually measuring three things. We're measuring the compressor, the actual keg, and the taps and the line. Here, we can see the Kronenbourg. Actually, we've got an amber because the temperature's 4.3 instead of 3.9.

The good news is that this is actually being seen by Carlsberg and your service reps at the same time.

**JUDSON ALTHOFF:** Yeah. So, it's pretty hot out there in Vegas, we want to make sure our beer is as cold as it possibly can be. What can we do about it?

**SARAH HAYWARD:** Well, let's log in as the sales rep. We log in again, and we log in as the service rep here. We can see the service area, and I can click on "see your bar." And here we can see it's giving me a message to check the refrigeration equipment.

So, here, we're allowing the service rep to work proactively with the bar owner to help them solve the problem.

**JUDSON ALTHOFF:** Right. So, as a bar owner, I don't have to be in the weeds of how this thing all works. You can directly engage with me and help me solve my problem.

**SARAH HAYWARD:** Absolutely. And in this example, it may be the refrigeration equipment is about to fail, and we can predict that using models in Azure in AI.

**JUDSON ALTHOFF:** Awesome. So, what's the rollout plan for all of this?

**SARAH HAYWARD:** Well, we've already got about 30-plus pilot bars out in the market. And what we're looking at is the sensors that we need to really bring this more globally. And we're super excited to be bringing this to market.

**JUDSON ALTHOFF:** Awesome. And this scenario has actually fueled how we're thinking about our own development, actually our IoT-driven field service application within Dynamics 365, so maybe I can talk to you about that a little bit more after the show.

**SARAH HAYWARD:** Maybe we can have a beer.

**JUDSON ALTHOFF:** Sounds like a good idea. So, listen, let me provide a summary here because in each one of these vignettes, you have seen a fantastic use of technology driving forward digital transformation and great partners behind bringing those technologies to life.

Once again, I have to remind you that this isn't a demo, this is digital transformation in real life. And while Sarah and Jochan did a fantastic job up here, they're not actors and actresses, they run this business. And they do it because they love it, they do it because technology can actually change the way in which they serve their customers around the world.

From employee empowerment and bringing together a diverse workforce, from folks in lab coats to folks driving trucks, to thinking forward and really reimagining your operations and all of the work you've done with Azure in the cloud, to then thinking forward how you actually use AI to make beer better, to then, finally, coming together and engaging the customer better than ever before, making it fun along the way. I really can't think of a better example of digital transformation.

Before we conclude, though, look, these are our most important partners around the world and all of them work forward to drive these types of solutions, bring them to life. What kind of advice might you have for them, Sarah, before you depart?

**SARAH HAYWARD:** Sure. Well, I think it all starts, then, with your customer's vision of digital transformation. At Carlsberg, we have a vision of a connected Carlsberg, and we need great partners who can innovate with us and respond rapidly to the diverse and new opportunities for us to connect with our employees, with our customers, and with our consumers.

**JUDSON ALTHOFF:** Awesome. So, like I said, it's digital transformation in real life, and we want all of you to have a first-hand experience with this -- literally first-hand experience.

We have a little treat for you. We actually have a happy hour at the Carlsberg Lounge here at Inspire. Both today and tomorrow, if you join us at 5:00 p.m., you can sample probably the world's best beer.

In addition to that, you can actually join -- or enter, rather -- a drawing to go to Denmark and do a beer tasting in Copenhagen with Jochan and Sarah. So, please join us at the Carlsberg Lounge at 5:00 p.m. either today or tomorrow. Sarah, Jochan, thank you so much.

**JOCHAN FORSTER:** Thank you.

**JUDSON ALTHOFF:** Really well done.

**JOCHAN FORSTER:** Thanks.

(Applause.)

**JUDSON ALTHOFF:** Sort of a shameless trick. You know, offer them free beer and they clap. It's great. (Laughter.) Thank you, guys, again.

**SARAH HAYWARD:** Thank you.

**JUDSON ALTHOFF:** Very well done, thanks.

**JOCHAN FORSTER:** Bye.

**JUDSON ALTHOFF:** Hopefully that story inspires all of you. Again, I couldn't have actually canned a better presentation than the one you just saw there. And the best news is that it's actually real. It's not demos, it's not screenware, it's digital transform in real life.

It should inspire you about the opportunity that lies ahead, because what lies ahead is even more impressive than all of the great work that we've done in Fiscal '18.

I'm really, really excited about what the future holds, and I want to share with you our FY19 focus areas.

Again, as I stated in my opening, the commercial model remains steadfast. We aren't making major changes in FY19, but rather, tuning the model so that we can build strength on strength in FY19 together as an ecosystem.

There are just five things that we're going to focus on, and I'm going to take you through them so that you understand how we'll operate even more effectively and more successfully together this year.

First and foremost, it begins with culture. Admittedly, this is Microsoft's culture, but we think of our partners as an extension of Microsoft, and so I want to share it with you because it means so much to us, and I know it means something to you as well.

Our culture is one of having a growth mindset. You cannot bring solutions like the ones that you've seen and the ones I've talked about today, you cannot bring them to life without investing in your own potential and investing in the fact that all potential can be nurtured. So, the growth mindset culture is, first and foremost, the thing that we have to continue to accelerate at Microsoft and across the ecosystem.

For us inside the company, it's about operating as one Microsoft and being obsessed over our customers. It's also about diversity and inclusion. And I slow down to say each of those words separately because each of them are important.

We embrace diversity at Microsoft because we want Microsoft as a company inside to look like the world outside. And we want our partners to look the same way.

That doesn't happen, though, without the other part, the "and inclusion" part. You have to create an environment where people can come to work every day, people of diverse mindsets, because none of us are as smart as all of us. If we bring together those ideas, we can reach our potential.

You have to create an environment where people want to come to work, they feel like they can learn, grow, thrive, build careers, and above all else, be happy in the work that they do. And that leads us all to be able to make a difference in the world. So, investing in our culture, job No. 1 in the focus areas in FY19.

The second area of our focus is getting even deeper into our enterprise accounts, investing more and more in our industry strategy, getting more focused on doubling down on the resource coverage, increasing coverage density across technical resources, industry experts, so that we can bring more and more of our customers forward into the intelligent cloud and the intelligent edge digital world.

That actually will call to action a lot of partners around the world. It means that we need more and more ISV solutions, more and more services practices to invest in industry-differentiated solutions in the enterprise, while at the same time growth in the breadth in our small, medium, and corporate spaces.

Which leads me to the third aspect around customer acquisition. Look, we want to bring more and more customers to the Microsoft Cloud, and we want to do it together. There are five key things we're going to do to make that happen. We're investing heavily in account-based marketing so that we can feed relevant contextual leads to all of you so that customers actually get a value proposition that resonates to them.

We're going to create some new customer-only territories -- territories, frankly, that have never had customers on the Microsoft Cloud. We're going to focus on bringing forward those opportunities and working with you. We're going to add specialists dedicated to those territories, and we're going to provide an incentive model that compensates our people as well as you more for doing the hard work of breaking through with new customers.

Next, though, it's great to focus on adding customers, but if you don't retain them and grow them, you might as well not have acquired them in the first place. So, we're going to continue to invest in customer success and retention and growth. We're adding resources, we're investing in you so that you can continue to add partner customer success managers and partner cloud solution architects so that we can continue to help our customers move forward.

And we're going to provide better instrumentation so that you know how to help customers. You know that when they've acquired a service, how to help them bring it to market. You know what the next best workload to take to the cloud is, all driven by AI, all delivered out to our partner ecosystem.

The fifth and final area, actually, brings us full circle because we're going to invest heavily in learning and readiness because, once again, if you don't do these things, you can't nurture your potential.

I'm really excited that we'll be rolling out a brand-new learning platform this year, and we're rolling it out simultaneously internally and externally because, once again, you are an extension of everything we do. We've got new cloud certifications that you can actually beta test right here at Inspire. They'll become live at Ignite. We're going to revolutionize role-based learning like no company has ever done before in quick and nimble ways across sales readiness as well as hands-on technical.

The picture that's represented on the slide is, honestly, one of my favorites because it's one of the hacks that we did together, Microsoft engineers and partners, where we took 100 different customer scenarios and hacked them forward together.

It's this hands-on, experiential learning that makes us all better at what we do so that we can serve our customers.

Which takes me to the mission. This is what it's all about. It's not about us at Microsoft, it's about empowering every person and every organization on the planet to achieve more. And it excites every Microsoft employee, and I hope it excites all of you. It's my belief that being a Microsoft partner means something more, it means something different.

I've been working with partners my entire career. I've been working with some of you long before I even came to Microsoft, and I have to say that this ecosystem is special. What we do is different because it's about everyone else, because it's about making a difference on things that matter to the world, which makes me really excited to share this last video with you.

There's no more noble cause than the work that we do together to save human lives, and to make lives better here on earth. And the work that we've done with partners, and at Johns Hopkins in particular, is a great representation of that. So, please roll this video.

(Video: Johns Hopkins)

**JUDSON ALTHOFF:** To close I want to take you back to the beginning, back to how we started this morning in that opening video and all of the fast music and the emphasis on seizing opportunities. The video talked about seizing opportunities and making them big and making them bigger than ever before. But I want to inspire you is to seize opportunities for good, because together we will empower every person and every organization on the planet to achieve more, and none of this is possible without you, without all of you. I couldn't be more proud and more humbled to come to work each and every day with all of you to make that a reality.

Thank you.

Could I have a moment of sincerity with you, the video that we showed talked about saving human lives, and unfortunately we can't save every human life, and this past year we lost someone who is very special to this community, and to this ecosystem, who spoke on behalf of all of you, coached Gavriella and I how to support all of you better. And we just wanted to share a few words about celebrating this individual's life.

So Gavriella.

**GAVRIELLA SCHUSTER:** A few weeks ago a very dear friend and colleague, Patrick Winter, had a quite unexpected passing. And Patrick, as you know, made a huge impact on the whole community. He was a tremendous advocate of our ecosystem on behalf of everyone. He built Software One from the ground up, has been with us for several decades. And was the driving force behind the entire organization and we are going to miss him deeply.

And there was nothing that was more important to him than the success of Microsoft and the success of the Microsoft partner ecosystem. And I know you and I spent many hours together with him. And so we wanted to celebrate and honor his legacy and his life. I think he would have wanted nothing more than to know that the entire ecosystem continues to thrive and drive the success because that was at the heart of everything that ever made it important for him.

So I would like all of us --

**JUDSON ALTHOFF:** Patrick would not have wanted a moment of silence, but actually a moment of inspiration and energy. So with that, how about a round of applause in celebration of Patrick's life.

(Applause.)

END