Technology and competitive position

Eric Bowman – TomTom – Chief Technology Officer

Hi, I'm Eric Bowman. I'm TomTom's CTO. And it's my pleasure to be with you here today for this historic moment. I want to share with you the story of how we built the technology and the team that is going to catapult TomTom back to growth. But first, let me share a little bit about my background. I started my career in computer games. I joined Maxis, outside San Francisco, the same day they IPO-ed, June 1, 1995. SimCity 2000 was riding high, the energy was electric. Unbeknownst to me, there was a huge problem, though. Customers would buy a game like SimCity 2000, and then they wouldn't spend another dime until the next game was released. And so, the company would ride this roller coaster of these incredible surges of revenue, followed by these horrible troughs as we scrambled to get the next game out there, which took years, and not every game was a hit. So, our mission was to fix this by creating games that continued to compound value after they were released.

In 1996, five of us formed a team to create a game that we hoped would appeal to everyone, and that would become better, the more people played it. That game was released in 2000, and it was called The Sims. And now maybe enough time has passed that some of you have played The Sims. Has anyone played The Sims? Couple people? Oh, more than a couple – good! As you probably know, it became one of the most profitable video game franchises in history. A little bit unexpected. But more critical is that we created an aftermarket for add-ons and a vibrant community that comes to work creating content for the game that was shared. And the game took off, and the rest is history. I went on to work for a few more companies, I was involved in bringing the worldwide web onto mobile phones.

I worked previously at TomTom bringing their first live traffic services to life and worked in ecommerce, having revolutionized fashion ecommerce in the US and in Europe for millions of households. But I always had a love for TomTom, and a passion for location technology. And I returned in 2019 to help build what we're announcing today. So, let me tell you a little bit about how we got to this moment. Our digital maps created an industry, and our personal navigation devices created another industry, and billions were made. And the modern world literally finds its way using the technology that TomTom pioneered. But over the past decade, we have struggled to grow. The markets that were created had hidden ceilings, which have made it difficult to go beyond where we've been and where our aspirations would take us. And since our first digital map, there's thousands and thousands of innovations, making the maps so detailed, so accurate, that to those early TomTom pioneers like Alain in the audience, it probably looks a little bit like magic. And as the entire world becomes digital, making maps becomes more and more expensive.

To make our maps we organized an incredible sourcing operation that is really the envy of our competitors, some of whom no longer exist because they couldn't organize as efficiently. We measured and bought millions of data point. Road geometry, address points, points of interest, museums, hospitals, the corner shop. We conflated and fused and shaped and chiseled all that data into an amazing product that really did change the world. But the cost of doing that, not just for us, but for every mapmaker, has become a significant constraint. And it's really unsustainable. And there's another problem. Most of our customers have wanted a static database, something that they can compute on. It's almost like, we mail them a printed map. They're hard to update, and they can't phone home and tell us about a problem. And then we can't fix it. Without that connection back, it's a thousand times harder to create a system of maps that gets better with use. Like our customers, we also face that pain. In Automotive, the slower-than-expected adoption of connected navigation has meant that many navigation systems, not just our own route on an installed map – even today, updating the maps in those millions of cars does not happen. I'm sure some of you have experienced this. "Why isn't this road in the map? Why can't I turn here?" It's frustrating for our customers.

It's frustrating for us. More often than not, we've actually fixed the problem. We just can't get it to our customers. So, this lack of connectivity really slows down innovation industry-wide. Everyone making onboard navigation has struggled with the same problem and a number of our competitors have either pulled out of that business or it’s not looking great. Creating navigation for Automotive is challenging, because data does not easily flow to and from the car.

So, what would you do to transform the company, revolutionize mapmaking, and how would you kickstart growth? Well, let me share a little bit more on the journey that we've taken. It has required bravery, vision, and phenomenal execution. To kickstart growth and unleash innovation, we needed to transform how we operate, how we make the map and how we connect to our customers. We needed to be an even smarter company, and we create an even smarter map. Part of the secret was already part of our success. In 2006, we put SIM cards in our personal navigation devices and began collecting GPS probe data. That is, our software shares information about how traffic is flowing and where it's not moving. And we were able to create this incredible traffic model. And that traffic model created a flywheel. We collect data that creates traffic information, and the model makes the product better. As we sold more PNDs at the time, the traffic got better, and around it turns.

That has continued into our Automotive business. Every Automotive deal that we have done collects GPS probe data. Today, we collect 60 billion probes per day from 600 million devices all around the world. And our live traffic product is second to none. This kind of feedback loop is a growth engine. As Johan mentioned, it's the kind of engine that powers the most successful companies in the world. We realized we needed to extend the power of feedback beyond live traffic to make the world's smartest map. This point is so key. The dynamics that created the best live traffic model are the same dynamics that we're using to drive our future growth at a bigger scale. To make this happen, we began collecting more sophisticated data, such as sensor-derived observations, or SDO. Mounted cameras in the car collect imagery showing signs and lanes, and we process all of this in real time, combining with GPS probes. And we get a rich, fresh description of the world.

Our challenge was to invent the technology to complement our mapmaking expertise, and automate the process of making and improving the map more efficiently than ever before. Doing so required a step up in our capabilities. We needed to extract the insights buried within these trillions of data points, which is only possible using the most advanced technology. We began to organize ourselves around this, doubling down on improving our practice of engineering, and product management, data engineering, data science. These efforts have culminated in what we're sharing today. We've assembled an incredible team – you’ve met Mike and Laurens. And they brought a number of people with them. And we're hiring more all the time. We continue to pull the best of the best from companies like Amazon, Google, and Uber, to integrate fresh thinking with our existing deep domain expertise. And we've organized in the most modern way, preserving and leveraging a legendary culture to create leadership at every level, to enable new scale, and ensure that coming to TomTom is incredible for your career. And we've invented a technical marvel, an automated system for making maps that is infinitely scalable. And it comes with this magic fairy dust. The more customers that use our products, the better they become. Our new map product is real-time and incremental, which means our customers will consume and incorporate the latest map in minutes instead of months. And our system have built-in channels for our customers to provide real-time feedback whenever our map doesn't match what's really happening. So, it can be fixed and back in their hands right away. We didn't stop there. The platform will allow customers to build software that runs inside the platform, enabling them to add and improve the map however they need, in ways we can't even imagine. It will be detailed and diverse, fresher than fresh, and will cover everywhere on earth people want to be. Whether they're creating the metaverse, or building an app that shows where it's safe to ride a unicycle, whatever our customers can imagine, can go in the map. And they will do so partnering with one of the most customer- and partner-obsessed companies there is – TomTom.

We are building an extensible open platform, so we all benefit when we all make our map better. This is the system that will create the smartest map and power the future of mapmaking for decades to come. And we won't just make the smartest maps. We are creating the smartest software and services. Gone are the days when we were just one of many suppliers contributing to a fragmented automotive experience. We are now a key enabler and trusted partner for OEMs ,as their cars become software platforms. As cars finally become reliably online, we're bringing the perfect navigation experience for drivers to life. We will pull drivers off their phones and immerse them in a connected digital cockpit. The OEMs who've seen what we're doing, see that this is their future.

Our complete product portfolio integrates perfectly to improve the safety, comfort, and efficiency for drivers across every sector. From Automotive, where we've been successful for years, to the new, fast-growing markets we're entering, like ride-hailing, local delivery and fleet management. Our new Maps Platform and ecosystem will transform and sustain our maps leading position across every market, and is beautifully simple. We collect data. We create an exceptional map. We sell more maps. We collect more data. And around it goes. It forms a beautiful, almost organic system, designed to get stronger and better with every customer, every observation, and every innovation. It's a true engine for growth. And now I'd like to hand over to Taco, who'll talk about the financials.