



TomTom Group Strategy

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| Harold Goddijn | TomTom | Chief Executive Officer |

Group Strategy

Harold Goddijn
Chief Executive Officer

Welcome all, my name is Harold Goddijn, one of the founders and I'm also the CEO and for today I think we have great line-up of speakers. We thought it was a good idea to get together. As you may know, we are a focused location technology company and I think it's a good moment in time to give you an overview of what we're doing, where we are and tell you about our aspirations and the progress we're making in executing this.

We are a more focused location technology company with a strong balance sheet and a much simplified business model. And I think TomTom is uniquely positioned to fulfil a central role on location technologies. We are independent, we are the Switzerland of maps. We don't compete with our customers. We're very careful with data, we don't use data for alternative business models but we use it only to improve our products and that makes us a trusted player in many segments of the location technology world. Throughout the day we will explain where our strengths are coming from and how we want to exploit the big trends that are now happening in location and as a subset of location, what's happening in the automotive space.

TECHNOLOGY FOR A MOVING WORLD/IMAGE

This is a map of Amsterdam. We are in the centre of Amsterdam. And maps are central to everything we do. Some of our customers use our maps in an uncompiled way and making their own applications on top of that map. Via tools, via update services to manage that data properly but the application layer is done by our customers. Examples there are Uber, Microsoft to an extent, Apple of course, or we're using our data and update services to make amendments to the map itself.

And we can play this role because we invested heavily in the last five years in a very efficient map-making platform and transaction map making platform. It's the same and we can continuously update that map without having to do better processing or having to release data and compile maps and so on and so forth. It's a little bit the same as continuously updating software which the industry adapted some time ago.

We're doing the same for maps. And not because it's just faster, and it's continuous, because it also opens up the way for automation and that's the next phase in our map-making journey which is to automate more and more of the manual labour. So, if you go back 10 years ago, then you could say map-making was a very laborious exercise.

It was a matter of bums on seats, more maps, and better maps meant more people. There was a straight relationship between that, but increasingly we start to dig into all sorts of data sources that are there in the public domain to be generating ourselves and we write also some software to extract maximum value of that and that allows us to get better maps, make them fresher and reduce our cost.

Creating technologies for a #movingworld

And I think it's a very critical component. If you spent less money in maintaining and building the map, we can spend more on innovation and differentiating technologies and applications. We can only do that because of our people.

We understand like all leading and successful technology companies that you can only be as good as your people and go to great lengths of making sure that the talent we hire, that we retain them and we train them and we advance their careers and help them to get better at what they are doing.

But that's not only it. We also have an organization structure that is flat - as flat as we can possibly get it – and we make an effort of putting the decision-making power as low in the organisation as possible. So, we give leaders control over the input and the output within boundaries.

Of course, you need to earn that trust, you need to earn that capability, but if you do, you can go along way within TomTom without being slowed down by red tape or all sorts of things that are non-value add. And I think that's one of the reasons why people like working for us and coming to TomTom. Every year we get about 80,000 applications from people who want to work with us. That doesn't mean it's easy to attract talent. But we are an attractive employer and I think we are enjoying very good attrition rates as well.

So certainly, compared to the industry averages, I think we are doing better than most and when you ask people what they like about TomTom and why they recommend other people to work for us, then the first thing that comes up is culture. People like the culture. It's an entrepreneurial, fast moving culture where you can actually make a difference and where you can get stuff done and that is important for the type of people and the type of talent that we want to attract.

IMAGE

I think the other thing that is really important, and not very well understood, is that we have a strong heritage in consumer applications. We know and we've learned early on how to talk to consumers, how to develop applications that are charming, that are engaging and that are fast and that meet end user requirements, and we've learned that obviously working in the personal navigation device market, and we are making a point to keep and hang onto that knowledge and that experience in order to test hardware, to harden hardware, but also to see what works and what doesn't work.

And that's a very important part of our DNA of our heritage and we use that knowledge and experience to very good results in the automotive industry that typically is a little bit behind cutting edge technology but are also looking for partners that understand end user behaviour and end user products.

MAPS FOR EVERY NEED

We try to do the same thing with products that don't have an end user interface but where we also want to learn how our customers are interacting and using that and that is especially true for HD mapping. HD mapping is a new technology. Actually, it's a different representation of reality of the world. It's high fidelity, it's 3D, but end users don't see it. It's somewhere in a silver box in a car driving and it's part of a larger system.

IMAGE

But in order to understand the working of the system, we've also invested in our own self-driving car and it's parked in front of the building. It's a fully-fledged certified level five self-driving car and we have built that not to build autonomous cars ourselves, but really to get a good and deep understanding of what it takes to build those car.

What the sensors are giving you, how our map interacts with that complete system. And we use this car and test environment that comes with is also to counsel our customers in the automotive industry to tell him what works, what doesn't work and tell them results about accuracy, reliability, and so and so forth. So again, we're not building our own self-driving stack, but we've gone a great length of testing our own product, eating our own dog food, if you like.

IMAGE

Being at the front and at the cutting edge of technology has helped us in the last five years, or the last ten years I would say, to build very strong relationships with cutting edge companies. Leading technologies, mostly on the West Coast. You see logos of a few of them. Microsoft, Uber, Verizon Apple and there are more and those companies are at the front line of technological development and to be honest, they don't suffer fools easily and it helps us to keep together on our toes to work very hard to keep up the pace and learn and understand what's happening, especially on the West Coast.

So, we can separate the hype from what's real. We can understand trends at an early stage and have good visibility, privileged visibility on what's happening in the industry at large and in location technology industry in particular. And so, not only have we learned from those customers, but those customers are also actively contributing to make our products better.

We'll talk about it later. But for most of our customers, we get a ton of data that we can process and extract value from the data and we've also entered recently with a number of our customers editing partnerships where they can directly edit content in the map database that will then become available to everyone and everybody wins from that.

We have a better product at lower cost and it's a very important flywheel effect that we will encourage in the years to come. There's a lot of companies who want access to location data, build location applications and it's one of our strategic objectives to make better maps at lower costs to serve those customers in a very efficient way, and we want to put ourselves in the midst of that evolving location ecosystem.

We can do that again because we are non-threatening. We are independent. We don't compete with our customers. We don't use data from our customers to fuel alternative business models and that makes us a trusted partner.

IMAGE

As a result of that, we've also managed to expand our market share in the automotive industry very significantly over the last couple of years. So, we've won businesses in North America, Asia, Europe and so on and so forth. We have a couple of very strong products including traffic information where in Europe we have about 80% market share and 40% market share in North America, which is growing,

and we've won significant deals for traffic information in North America in the last couple of years. So that is all heading in the right direction.

KEY OPPORTUNITIES – SHAPING OUR INDUSTRY

If I look at the markets that we're operating in, it doesn't come as a surprise to you that a lot is happening now and that is exciting. It's also, of course, there's a lot of fluidity, a lot of uncertainty in those periods of transition, but we feel we are very well equipped to deal with whatever that's thrown at us. That is because our technology is very good shape. We have a strong balance sheet and we already have leading positions in some of those markets.

IMAGE

So, these are the four themes where we where we are playing. Obviously in the mapping ecosystem where we increasingly want to partner with our customers, our clients not only to generate income, but also to collect data and put ourselves in the midst of that mapping ecosystem and I think that's a very exciting opportunity and we are making good inroads there.

Alan will tell you later how to translate in efficiency productivity and cost for map-making. In the car, there is a lot happening as you know. I don't think I tell you a secret when I say that the embedded software that is now being shipped in most cars did not quite live up to end user expectations. And the industry is understanding that it's making up for lost time and understand that in order to keep up with the smartphone world and user expectations things need to be different and that means that cars will go online.

That's a big trend that we are seeing, and our technology is ready to play in that trend. So, what you use to see in cars with different systems and different subsystems and different buttons and different user interfaces for the radio and for the HVAC for the anti-collision system and for the overtaking warning and so on and so forth is all separated and distributed through the car.

That's out. What is in is a more unified consistent, clear user interface that takes all that sensor information and all that information with the car and presents that in an unambiguous UI that is easy to understand, that is not distracting and is adding to safety. We understand that. We are working on products that will show, and Cees van Dok, our Chief Product Officer will show you some of the thinking that goes into these types of products and getting a unified and safe user interface in the vehicle.

The other trends that we are seeing is automated driving and although the hype has come down a little bit and the noise has come down and expectations are now a little bit more realistic, don't make any mistake: automated driving is happening. It's here to stay. There is an enormous amount of effort being put into technology to get it to work and we are playing our role in that system with an HD map product that is leading.

We've proved that our HD map system is leading because we won two big deals from large car makers - one in Japan, one in North America - and we will shortly see our first commercial product for HD mapping installed in the vehicles. But before that, there is ADAS of course – driver assisting systems. That train has really left the station and we are already starting to generate significant income from ADAS capabilities that are part of our map content.

The last area where we want to play is the maps API business and that's basically a service that is delivered to software developers who want to location-enable their own applications. That's, for us, still a small market and we are quickly maturing our product portfolio but it's important to understand that most of the technologies we are developing now are developed in the forms of APIs and whether they end up as an end user facing product in a vehicle or as a more naked API in a third-party application doesn't make that much difference.

So, there's a big synergy between our core technology development that's taking place and being able to serve the developer world through maps APIs and we will talk about it in more detail later as well. And I'm very happy that Chris Pendleton from Microsoft is here to show you what we're doing.

So, I want to spend a little bit of time with some proof points to show you that that strategy is really delivering business result. So, in our connected navigation space in electric vehicle solutions, we have announced earlier this year deals with Volkswagen, with Nissan, with FCA and with MG as a clear sign that there is traction in the marketplace.

We are integrating our in-vehicle technology with Microsoft's connected vehicle platform and in combination, we can offer the full stack of the end car-user experience and what's happening in the cloud for authentication, for data analytics, and so on and so forth. And I think it's a very promising partnership that will develop over the years to come where we, in combination, cover the whole range of technologies to make that connected car a reality.

As I said earlier in automated driving, we've won two deals and that is at this stage of the market development very important to us because for the first time we will get real user feedback from commercial available products and that helps us to understand how our products are used, and harden the technology and get better based on real user feedback in the marketplace. It's also a very important proof point to other carmakers that need to make a decision about deployment of HD maps in their vehicles.

There is a tendency, of course, to go with what's proven in the marketplace. And the third reason why this is really important is that it will give us, for the first time sensor data, that will come back into our system at scale and that will help us to keep those HD maps fresh, of a high quality and eventually that will lead to self-healing HD maps where the whole process of change detection and fixing maps can be automated to a large degree.

Maps APIs. I spoke to that as well. There's also proof that that's starting to work with a partnership with Microsoft but also through our own API store where we are serving software developers who want to location-enable their own application.

So, I'm very proud of what we have achieved as a team and as a business. We have gone through multiple changes. You have seen that. But I feel that we are in a very good position. We have a strong product road map. We have a fantastic team and a strong balance sheet. We're generating cash. I think we are an excellent position to capture the opportunities that will open up over the next years, both mid-term, but certainly in the longer term. The independent nature of our company allows us to put our customers and end users first and again the data we are collecting is solely used to improve our own products and not to feed alternative business models and that is why we are a trusted partner with so many triple A companies in the world. Throughout the rest of today, we will elaborate on this topic.

We will go deeper on every vertical so you will get a better idea of what's going on and you can visualise the progress that we're making. I'm very happy that some of our customers will give you an outside perspective of what we're doing, and what it means to work with TomTom as a partner.