Opening

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

We have a very exciting story to tell, and we have our senior management here that will give you different presentations. So, let me talk you very shortly through our program. Obviously, we will start with our Chief Executive Officer, Harold, who'll to take through our strategy update. We will introduce our new map platform and then go over our business units, both Automotive and Enterprise. Then we do have a Q&A. So, that will both be hosted online and in person, here. I will come back with some details then, but as we're doing it both online and in the room, we ask you to stand up and wait for the microphone before you ask your questions. We have then a short break, go back to a more in-depth look at our technology. And we finish off with Taco before we do Q&A. And then Corinne Vigreux, one of our co-founders, obviously, will end the program with some closing remarks. And then we do have lunch and there's the opportunity to visit the various booths here in the venue. Okay, with that, we go to a short movie first.

Strategy update

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Welcome, I'm very excited to be here. And thank you for coming, both the people who traveled to Amsterdam and the people that are obviously behind a screen, somewhere in the world. We're here today in Amsterdam, in the A'DAM Tower overlooking the city of Amsterdam. You will, by now, have seen our press release earlier this morning, where we announced the availability of a new mapping platform, a new map, a record Automotive order intake for 2022. And we also provided some midd-term guidance for revenue growth and cash generation. The changes that we are announcing today in our tech and in our way of working will have a profound impact on our business, but also on the industry that we are operating in. The introduction movie gives you a bit of a flavor of what our customers expect from us, and we have completely rethought how to make maps and how to make them useful. Our improved products will make us more competitive in our existing markets, but will also open new opportunities and new business. And we will offer new possibilities to customers as well, giving them a lot more freedom to innovate.

We are aspiring to get back to growth. We want to achieve scale and operating leverage and that will take us to a path of profit and cash generation. Now, the market for location technology is growing rapidly. It's a foundational technology to find things. But, less visibly and often running in the background, but equally important, maps are enabling people and things to move safely, easily, and efficiently. Let me give you a simple example. Every time you order an Uber, hundreds of calculations, if not thousands, are made to work out which driver is best-placed to pick you up, where to pick you up, and what happens after you've left a taxi. And the accuracy of those calculations has a direct effect on customer satisfaction and operational excellence, and eventually on your bottom line. Now, when you are carmaker and you want to get to a higher degree of automation and self-driving, you have a separate set of requirements. Developers of those systems need to know how many lanes there are, where the zebra crossings are, where the traffic lights are, and much more. And those requirements drive and insatiable demand for new things to map, for improved accuracy, and improved freshness. And traditionally, it's been very hard to keep up with that ever-expanding list of requirements. Mapping is expensive, it's hard. And often there's no economic justification to map and maintain certain attributes.

Now, at the same time map users are producing an ever-increasing amount of data, and signals. Every time an Uber client orders a taxi, we learn something through the app about the world around us. And when an intelligent front-facing camera passes by a traffic sign, minutes later, we can see the traffic sign popping up on our servers. And also the open source community has gone from strength to strength. The OpenStreetMap community is producing and maintaining a visually extremely attractive map, with a wealth of detail.

Now, our new Maps Platform is designed to bring all those sources together in a consistent way to power the most demanding applications. And that new Maps Platform is combining, of course, our own data, but we combine that with new what we call 'super' sources – not local sources, but sources that are relevant for the whole map, across the whole world. And those new sources are sensor observations and open data. And that Maps Platform is designed to support an ecosystem of customers and partners to contribute data back to the map, improving the location technology we all use. In addition, and this is also new, customers and partners can map their own data against a consistent base map, creating layers that cater to their specific needs. And that new Maps Platform is designed to reintegrate those layers seamlessly, so the applications can use that data as well. Now the technology will be a driving force for accelerated innovation, the new maps platform will foster an ecosystem where the world can come together to create the smartest map of the planet.

The immediate effect is that our new maps are richer, they contain more data types, they've got wider geographical coverage, and they are easier to maintain. And that makes us more competitive in our existing markets. But importantly, it also open markets and use cases where we currently are not present or not competitive. Now, let me show you a first glimpse of what that means. Let me pop up a number of maps. Here you see Amsterdam, of course, it's our home city, it's well-mapped. Navigation is very good, traffic information is very good. But even here, if we combine the data on our new Maps Platform, you see a higher level of detail, especially in the non-build-up areas, building footprints, parks, water features, tram lines, railways, are all now part of our new mapping platform.

This is an example of a completely different dimension, Kazakhstan. Now, Kazakhstan is not one of our core markets, let's face it, but a lot of our customers have worldwide exposure. And they want us to not only do Western Europe or North America, but also Asia and other countries outside Asia. And when you don't have that map, that detracts. And by not having Kazakhstan, we can lose an important Automotive deal. This is what the new technology does to our map in Kazakhstan. You see much higher detail, visually much more attractive – much more detailed than we have ever had before. And we can do this at relatively low costs. Another example, again of a well-developed map – this is Kansas. Again, a high quality navigation map, and combine that with the new sources that we have, you get much more detail, richness, a visually more attractive map. And that's important for customers who want that map visually represented in their application. Another example, Southeast Asia, very important, a big market. Indonesia is one of these potentially important markets. And again, there you see a massive improvement in detail outside of the road network. The road network is relatively well covered, we improve there. But look at all the detail in the visual implementation. You get a feel for how you can start using these maps outside of the Automotive world.

At a completely new level of improvement, this is Japan. In Japan, we don't have a map for historical reasons and competitive reasons. There are very few countries where we don't have a map. China obviously is an important market where we're not represented. But also until now, Japan was out of reach. It was simply a too expensive and too difficult market to enter. But here we are starting with a new map, with a very impressive base map already, from where we can improve using our other sources, such as trace data, sensors-derived observations, and more.

Finally, again, this is a well-developed market. Disneyland, Paris. Now, with our current map, we can get you perfectly okay to the entrance of Disneyland. But once you're inside of this land, there's not a lot we can do for you. But that was until recently. When you look at that new map, this is the power of the OpenStreetMap community detailing, visualizing everything. Combining that with the high quality base map that we are producing, and also inside of Disneyland, we now have something to tell you. You can see the railways, they're much more detaile. The paths, the attractions, you get the gist, I think. Now, leveraging the opportunities of our new map offering also prompts us to overhaul our complete application landscape. We have a set of brand new APIs and SDKs. And that will make it much easier to consume all that good news that we bring with our new maps, and to power all those demanding applications.

2022 will be our biggest year for bookings in Automotive by far and we are shredding our previous record. The backlog has grown to €2.4 billion, up from €1.9 billion at the end of 2021, thanks to a record order intake. We aspire to further grow our market share in Automotive, and our new maps give us a good entrance there. But also new developments like electrification, new safety legislations, ongoing progress in ADAS, and automated driving, will provide further opportunities for growth. Outside of Automotive, completely new markets will open to us. More countries, more use cases. And we aspire to double our revenue outside of Automotive in the mid term, on the back of better products and improved applications.

Now, in order to get where we are, we have attracted a lot of talent from leading tech companies, to join us on our journey to build the best map of the planet. We complement that, of course, with very deep

knowledge of mapmaking skills. Combining that new talent with the wealth of knowledge we have of mapmaking, has enabled us to get us where we are and to launch this product today. We are changing the way we are working. We are transforming into a leading tech company. And we're excited, the world needs an independent mapmaker that caters to a wide range of products and solutions, lining up to provide a platform and technologies to bring all that together. My colleagues will, later on in this presentation, take you through what that means, and give you a bit more detail. We'll also tell you what we think that will do to our commercial competitive position, both in Automotive and in the Enterprise market. Thank you very much so far. I'm handing over the microphone to Michael Harrell. Thank you, Mike.

The new Maps Platform

Michael Harrell – TomTom – Vice President Engineering

Thanks, Harold. And hello, everyone, and welcome. I'm Michael Harrell, VP of Engineering for TomTom's new Maps Platform. And I cannot tell you how excited I am to be here today to talk to you. Our new Maps Platform is going to disrupt how mapmaking is done significantly. And I don't use that word lightly. I know, we always hear that word, disruption, and it can feel very overused. But I've been waiting a decade for this moment.

Let me tell you first a little bit about my background, and how I've gotten to this point. I joined TomTom one year ago coming from Amazon. Prior to that, I worked for Microsoft for seven years from 2007 to 2015. We were getting our map from Nokia, HERE now, but the map just wasn't good enough. Just like Google, we decided to make our own map. Gates and Ballmer had seen the eventuality of operating systems becoming fully mobile, and knew having an understanding of where the device was, was going to be critical to the success of their operating systems. Given the quality of maps at the time, we thought we could do it better. We had all this great sensor data. We had the smartest engineers in the world. We knew we could build the best map cheaper and at higher quality. And we did. We created algorithms and solutions that are just now being rediscovered five, ten years later. We were doing it efficiently and really well, but it was costing us hundreds of millions of dollars just for the United States. So, fast-forward a little bit. Satya becomes Chief Executive Officer. We'd collected and completed the United States. We went to go ask for budget for Western Europe and Brazil. Satya saw the price tag. He was like: "Wow." His very next question: "How much am I paying now?" We gave him the answer. Six months later, we were sold to Uber. So why did he do that? Why was that something that Satya sold? Because hundreds of millions of dollars to create a map that's a little better, that's not a clear differentiator for Microsoft. He could take those hundreds of millions of resources and apply it to core differentiation for the business.

So, my team moved over to Uber to start building a map there. I left, I joined Amazon. But I've been watching the mapping industry for the past seven years, seeing the eventuality of all of these different companies trying to build their own map. And then realizing, even though we have all this extra data, even though we have all these machine learning capabilities now, it has only become even more difficult, and really, very expensive. Many different companies have gone in and out of attempting to make a map. Trying to build your own map has proven to be really difficult. And as companies started realizing that they can't build a map themselves, they started looking for alternatives.

This brought about significant growth in open mapping, as you can see here, especially with leading tech companies. OpenStreetMap, or OSM, is the leading open mapping solution. OSM is a community of map builders, manually building and curating the map. It consists of volunteers, GIS students from around the world, mapping their country and local neighborhoods. It also includes paid editors from leading tech companies, like you see here. So, I left Microsoft in 2015, and I'm watching the mapping industry to see how it responds to this challenge. And as we can see, many tech companies have been looking to open mapping as their solution. However, while we see significant growth, many of them that are using open data are only using it for their secondary and tertiary markets. Some are still just evaluating. Why is that? Well, OSM still has challenges that are yet to be overcome.

So, where are we today? What are the different options for the world in mapmaking? We basically have three options. I mentioned my background, building a map yourself. That's super expensive, as I mentioned. And most importantly, it's not a clear differentiatior for many companies. You can go with a proprietary map. This is the most common option that's being used today. TomTom, HERE, Google, all great examples. But these solutions continue to have challenges for companies to use. They don't get to

control the prioritization of features and fixes made to the map. TomTom, HERE, Google, they've opened up their map allowing companies to fix issues, but it's still against a proprietary map, and it's still controlled in a way that adds constraints based on the direction in which the proprietary map is going, limiting collaboration, and integration. Even more importantly, the speed at which innovation can occur is limited by the speed of that company, and the resources that company is able to and willing to spend on moving that product forward.

As a result, we see this interest in open data. It's been around for a while and we continue to see companies playing with it. There's a lot of interest. But it's still challenging for many companies, because of things such as slow quality checks. While community activity identifies and fixes issues, these issues can still be exposed to customers before being fixed. Vandalism is a particular concern, as it's an attack vector that didn't exist with proprietary maps. And it's really problematic when it gets exposed. When you compare TomTom's map to OSM, it's clear OSM was built by a community of editors, with their own priorities, not by a company that specializes in geolocation. For example, it's missing significant road coverage, routing capabilities are nowhere close to the proprietary solutions, and it is missing a number of things on top of it to make it a viable product for commercial use. And it also lacks standardization, which is challenging. Each country runs its own community and there's a bunch of differences, even for simple things like month-day. It can be flipped depending on the country, making it really difficult to work with on a global map. And of course, big companies trying to do a lot of work can't do automation, which is problematic when you're trying to leverage all the sensor data you're getting, and the automation and machine learning capabilities you've built.

So, what's TomTom going to do about all this? As I mentioned today, we see these leading tech companies working with OSM, but not fully, due to the challenges I mentioned. Automotive has been evaluating OSM but they've haven't been able to really leverage it, again due to the challenges, but also because they're more cautious with the quality, particularly in coverage and routing. Some have looked at it, but they haven't gone very far with it. This is where TomTom's Maps Platform comes in.

And this is where the disruption is happening. This is big. Now, those using OpenStreetMap can get the full coverage of TomTom's road network. And that provides a significant opportunity for everyone to co-collaborate. It's everything great about TomTom with the added richness of OSM. The TomTom Maps Platform makes OpenStreeMap enterprise-ready, commercial-grade. What I mean by this is that we're going to add in all the extra features and capabilities that have blocked people from using OSM, like standardization of the content. TomTom’s Map Platform will read in OSM data and normalize it to a single standard globally. We're working with a few of the top tech companies in the world on this standardization. We've had meetings weekly with them, including several face-to-face sessions. The excitement has been amazing in the working sessions. It's been awesome. I can't tell you how engaged everybody's been. It is challenging how everyone is thinking and strategizing about mapmaking at the top companies in the world that we're working with already.

We're also going to protect from vandalism, bad edits by adding quarantining, keeping those things from making it out into the customers’ hands. Then, we're going to add all of our additional content that has made TomTom's maps so great. All the content that you get from our sensor data, and our sophisticated algorithms, our POIs and addresses that we spent significant time sourcing all over the world. All these capabilities within a single ecosystem will bring the resources of the world together to share and work on a better map. Now, instead of being constrained by the resources of a single company, and how fast that single company can go, we're talking about bringing the resources, all the different companies that want to play in the same ecosystem, together. Well, that's going to accelerate mapmaking significantly.

The best analogy, I tell people, we keep saying that self-driving cars are going to be right around the corner. It's going to be a few years out, and then a few years come, and it'll be five years out. And okay, maybe it'll be 10 years out. We keep predicting it, but it never gets here. The reason for this is because of the options I mentioned previously. If you want to get into self driving, you have to build the end-to-end system yourself. You have to spend significant dollars on just redoing what's already been done. Just to add that little extra piece of secret sauce. The ecosystem we can create, it invites everyone in to collaborate. Gain the capabilities from the base, license the content and capabilities you need, and then focus your resources solely on the next innovation that you want and are trying to achieve. It's great for TomTom, because we can focus our innovation toward staying multiple steps ahead with our sensor data and our capabilities. But it also provides a huge opportunity for everyone in the industry to do the same for their area of expertise. TomTom's Maps Platform is the first proprietary mapping solution to embrace open mapping, bringing the best of all these worlds together.

This is how TomTom beats Google and the competition. With the sensor data and unique algorithms for specialized use cases, mapping can no longer be done alone. TomTom's Maps Platform is providing the answer, bringing the collective resources of the world together on a non-differentiating base map, and allowing everybody to focus their efforts where it matters. I know I know, everybody's probably thinking after I said it, how can anyone beat Google? They have what seems to be a bottomless pit of money to spend due to a very successful advertising business. But even Google can't go against the collective resources of the world. And the partners we've talked with thus far are really excited about the platform, it has finally given them the answer they've been looking for. This is why I'm so excited, and I'm not the only one. TomTom has got a ton of excitement happening, particularly for those we've told during the hiring process. We now have over half a dozen directors and VPs that have come from Amazon, over half a dozen directors and VPs that have come from Google, a few of them from Uber, and I'm sure I'm missing a few other tech companies. All in the last two years. Combine this with our TomTom veterans, that have been making maps for decades, and you have an exceptional team of expertise. It's a really unique time here, because it is so exciting, this new platform and ecosystem.

We've seen a big influx from all over the tech community, which has shifted how we do development. We are now moving in to truly being a leading tech company, which is really exciting here at TomTom. Someone asked me, why did I join TomTom? For me personally, I joined because I couldn't imagine reading about this, or watching this happen from the sidelines. I am so happy and feel very lucky that I've been able to be here to tell you about such a big ground-breaking thing that's happening in the mapping industry, and to be a part of that announcement. And with that, I'm going to hand it off to my partner here, Laurens, to tell you a bit more about how our map is getting better, and the great ways we're using and leveraging our sensor data.

The new Maps Platform

Laurens Feenstra – TomTom – Vice President Product

All right, and thanks, Mike. So, let me tell you a bit more concretely what exactly this new map is, and how it better solves the core challenges that our customers are having. I'm Laurens, I joined TomTom with Mike about a year ago. And I lead product for our new Maps Platform, Directions and Autonomous mapmaking. Now, as a product manager, one of my big jobs is to understand: “Hey, what are those industry challenges, and how can maps help?” Now, there are four major ways that the expectations for maps have been rising in the last couple of years. One is, we need richer map features. Gone are the days where a road network and points of interest are sufficient. Now, we need 3D buildings with clear entrances, and pedestrian paths and routing toward those buildings. It's not just sufficient to understand: “Hey, what are the turn restrictions for vehicles?” But you need lane-specific restrictions by vehicle type. Right, richer map features is one. Two, global coverage. As Harold mentioned, our customers are increasingly global, their revenue is increasingly global. So, the map that we provide needs to be of the same quality globally. Three, higher accuracy and quality levels. My background is in autonomous driving. I was at Google, Waymo, for a few years leading, amongst other things, the mapping platform. And when you think about autonomous robots, right, they need not just to know where the road is, but they need high-level lane geometry to understand how to safely navigate those roads. When we talk to some partners that are thinking about the metaverse, you need to protect that Metaverse onto three-dimensional buildings, you need to know where the human is that is wearing the metaverse devices, and you need to know exactly where those buildings are. So, higher accuracy and quality levels. Then, provided in minutely updates. Now, that's not true for all features. It tends to be that buildings don't move around on a day-to-day basis. However, there's other features like hazards, roadworks, speeds, that do change. And when they change, we need to be able to update them on a monthly basis. As well as if a customer tells us about an error in a map, we should be able to propagate that error to their production map within minutes.

Now, let's go a little deeper. A map can only be as good as your sources are. Now, we've talked about OpenStreetMap as a very important source. This is a human-curated source that is good at certain types of features. For instance, visual features. Their roadmap and the community is worldwide, meaning that this quality, they're able to provide on a worldwide basis. Now, we as TomTom intend to be a very good corporate member of this community, also giving back. But it's just one of many sources that we use. For instance, we have probe data. There are 600 million devices, vehicles, phones, that give us GPS traces and help us understand: “Where are new roads opening up? Which directions are they going, at what speed are they going?” More recently, with more and more cars coming online, and having access to cameras, we get information from their observations of where the speed signs are, where the lanes are. Then we combine that with our sensor ground truth, survey vehicles, satellites, and aerial imagery, to provide the ground truth to understand from multiple sides: “Hey, what is actually there in the world?” Then, data acquisition. We've been around for 30 years. In those 30 years, we have acquired many local sources from local governments, understanding where are the administrative boundaries, where are the postal codes. It takes a lot of time to establish those relationships and understand where those sources are. So, there is a great advantage of being a mapping company that has been around. Then finally, automated feedback loops. Customer data contributions are increasingly important, and we will talk about that a bit more in a little bit.

Now, let's dive a little bit deeper into some of the sources. Our new map data, improvements on visualization. As Harold mentioned, here, on top, we see Monza, Italy, near Milan, in our current map. And below, you see the new map with much more detail in greenery, parks, more detail in the building footprints. It's a much more pleasant map to look at, but it's also more functional.

Then, when you have better road data across the world, it doesn't just help the visual appearance. Here, you see the difference with more roads and more accurate roads. How it helps Teresina, which is a mid to large city in Brazil, how it helps our current products like traffic. With more accurate roads, we're able to better map-match our traffic product to those roads, making our existing products, that were already world-leading, much better globally.

Then, the automated observations, right? As I mentioned, we are getting these observations of daily 650 million signs, 70 million kilometers of road, in 60 countries. Now, these observations contain, where the vehicle is, the lanes are, the signs are, and what the signs are that I'm seeing. Now, these observations can be noisy. So, a single observation tells you something, but you can't trust it yet, which is why these vehicles need a map. But if you aggregate the observations together, you get a much better picture of: “Hey, where are the lane boundaries?” What is the lane divider type? Where exactly are the signs? And what are the signs saying? So, this is an incredibly important source for us to update our maps. And we are getting these in partnerships with OEMs. And the data volume of this important source has doubled in the past eight months.

Now with this source, these are the types of things that we're building. Right, on the top left you see the lane network that we're creating with this source. On the bottom is how we would use that lane network for a human driver, visualizing exactly where the lanes are, what the merge-in merge-out lanes are – helping you as a driver to not miss that critical exit. But, as importantly, these are important for the robots. Here on the top right, you see the intersection with exactly the lane boundaries, and the lane trajectory, indicating how an autonomous vehicle should traverse a complex intersection safely. So, this is what we're doing, combining the different sources.

Now, it's not just our sources that are important. Our new Maps Platform is built from the ground up to provide a base map that is shared, quality-controlled and standardized, which makes it a lot easier for other companies, who may not be mapping companies, to add their own data to it. Because when we have conversations about this new mapping platform, pretty much every company that we talked to tells us: “Hey, we have a lot of data that we want to add to the map. But adding data to the map is not an easy task.” That is why we start with this base map that is quality-controlled and standardized, making it easier from the start to add custom data to this. Now, we as TomTom have our own value-added layers, based on these other sources that are needed to provide the use cases that our customers need. For these, the feedback loops from our customers are incredibly important to keep improving the layers that we as TomTom feel: “Hey, this is where we are experts at.” Then, finally, all of these layers, the base map, the TomTom value added layers, and the custom layers work natively, whether you want to take the data directly, or whether you take our navigation or search software.

So these are the new maps. At the core there, we accelerate current businesses, and we enable collaboration. For instance, our new maps for ride-hailing companies accelerate their ability to launch in new markets with the richness that we can provide them on turn restrictions, on routing, while at the same time enabling a collaboration on those turn restrictions, on those roadworks, with the company that critically depends on those features for their bottom line. Similarly, our new map enables food delivery companies to understand better where the apartment complexes are, and improves the time it takes for one of their delivery people to get to the front door, while at the same time collaborating with them on finding the building entrances with a company that critically depends on knowing where the entrances are. And, as a final example, we accelerate the ability for automotive companies and Tier-1s to launch higher levels of autonomy in urban settings with this new map, while at the same time collaborating with them on using vehicle observations for our maps – to understand and improve the accuracy of the features that self-driving vehicles critically depend on for safe operations. So, that is our new map. And now, I will hand it over to Antoine and Mike, who’ll tell you a bit more about the business implications of this.

Driving growth in Automotive

Antoine Saucier – TomTom – Managing Director Automotive

Good morning everyone, online, and in the room. My name is Antoine Saucier. I'm leading Automotive at TomTom. And I am as excited as my product colleagues to give you an update on where we are with Automotive. For TomTom, Automotive doesn't mean only potential cars. But we also addressing light commercial vehicles, trucks, and motorbikes, and two wheelers. Everything we're doing is based on our core three technologies, maps, software, and services.

Let's look at our market share in Europe. If you look at traffic information, we are the undisputed market leader in Europe with 75% market share, and we intend to continue doing that. On navigation software, in a still fragmented but consolidating market, we have built a leadership position and there is significant growth potential for us to continue. On map, also, we've built a very solid position and there is growth potential.

If we now move to North America, technology on the traffic side was a little bit different, so it takes a little bit longer for the market to convert to our technology. But progressively, we're getting there – we'll be leading. Same on the navigation software and on the map, where we've built a strong position and we're growing from that point. With those three key technology pillars, maps, software, and services, we're creating two product lines. One is the in-car navigation – as you know, a very customer-facing product. The other one, a little bit more in the background of the dashboard, is ADAS and automated driving features.

If we look at the navigation take rates evolution, we continue to see a strong acceleration on the take rate. What we call take rate is the percentage of cars that are getting navigation, out of the total production. The combination of the market recovery and take rate increase creates a significantly growing addressable market opportunity for us, both on the navigation side and on the ADAS and automated driving side. The adoption of ADAS services is driven by regulation, and I'll come back to that with the Intelligent Speed Assist example in Europe. It's also driven by a stronger appetite for automated driving features in the in the car. Navigation adoption is driven by more screens getting into car and this feature being considered as a must-have. But also electrification and the software-defined vehicle are triggering higher take rates and demands for navigation.

Let's look at electrification. Electrification is happening. OEMs have announced the end of the internal combustion engine, and we start to see electrical vehicles driving around. It's only going to grow in the future. And this is an industry revolution and massive transformation. It's also a significant transformation for the navigation experience. When you're in an electrical vehicle, you not only want to go from A to B, but you also want to be sure that you're going to make it to C, D, and E, charge somewhere, and ultimately make it home at the end of the day. This means we need to have an in-depth understanding of what your consumption model is with your particular EV. We also need to know about your calendar, where you're going to, what is the best location to recharge during the day, and how to make it home. Ultimately, this is a fundamental change in the navigation experience.

We're well-positioned in that market already, delivering to our current customers. We closed a deal with CARIAD, the software entity of the Volkswagen Group, and we will deliver navigation and traffic to all their cars starting from 2023 onwards, with a significant focus on electrical vehicle. We also look at new EV companies such as Fisker. Fisker is also going to launch with our full digital cockpit starting in 2023.

Moving on to ADAS. ADAS is also a growing opportunity for us, driven by the combination of regulation – I'll come back to ISA – and also higher take rates for different automation levels. For these products, we deliver both the data, the software that enables access to the data in the car, and also services that help customers to make those features available in their car in a safe way. The important example in this ADAS conversation is ISA. ISA, Intelligent Speed Assist, is a new European regulation that will start from 2024 onwards on 100% of all produced cars, and forces OEMs to show the speed limit somewhere on the dashboard. You can only do that if there is a map in the car. And that for us means that we're not only addressing the navigation market, but that we're moving towards 100% of the cars produced in Europe coming equipped with a map. And that's the deal that we have won with Hyundai-Kia – even more important in this deal, is that they took that opportunity to actually move from a certain percentage of cars with navigation to 100% navigation. So, ISA regulation has made them decide to equip 100% of cars driving in Europe with navigation. So, that doubles the opportunity for us – not only ISA-driven, but moving towards full navigation in these cars. And we're doing more with other OEMs. So electrification, ADAS and automated driving.

A third significant opportunity for us is the software-defined vehicle. Software-defined vehicle is a little bit of a buzzword, but what it really means is that OEMs are trying to take back control of the software part of the vehicle, as it is becoming one of the most important parts. And they do that for two reasons. First of all, it's a critical way to secure that the customer experience is where drivers are expecting it to be, basically meaning you have a smartphone-like experience in your car, in terms of software updates, in terms of access to your digital life and your applications. On the OEM side, software-defined vehicles also enable new business models, moving from selling only at the point of sales, to generating recurring revenue during the life of the car. Both customer experience expectations and revenue generation will be enabled by location technology. Everything you see on the screen is a map-centric type of interface. So, the map is at the core of the software-defined vehicle approach.

And this is where our Maps Platform comes in as a key enabler for that to happen. Harold has mentioned the importance of coverage. Our OEM customers are global, they are not necessarily shipping a lot of cars in Kazakhstan. But if you don't have Kazakhstan, you're not going to be able to address this or that particular OEM. And so it's a qualifier for business. It's a differentiator if you have better coverage than anyone else, and that is where we want to be. Second point is the content. There's always appetite for more content. You want to make sure you have the right POIs on the right road. You want to move towards head-up displays with augmented reality in the car, showing you the way to go directly on your windshield. It never stops. And there again, our Maps Platform can help.

And it's also about collaboration. Our customers today already contribute to our traffic information and our map improvements. They share with us all the GPS probes coming from the car. As we get more and more sensors in the car, the opportunity for us to get more data from our customers, to collaborate on this map also dramatically increases, and that's the conversation we're having at the moment.

Talking about collaboration, the software-defined vehicle also completely reshapes the relationship we're having with our customers. The typical procurement-type of three-year cycle, rechallenging everything on a regular basis, doesn't fit with the software-defined vehicle, where you want to have a long cycles of software updates, delivering features, and securing revenue generation along the lifecycle – not a standalone, or ship-and-forget, type of product and business model. So, a complete change, also in the way we interface with our customers.

Now, how does that materialize in terms of business? Last year, we announced our partnership with CARIAD, a long-term partnership on software and traffic information starting next year, rolling out across all the brands of the Volkswagen Group. This year, I told you about this Hyundai deal – triggered by ISA, but then enabling us to deliver maps and services in Europe as they fit 100% of cars with navigation. Fisker, a new OEM with a digital cockpit approach, launching also next year. And there's more that is fueling this amazing backlog that we announced today. So, we're winning deals, we're winning market share, we're winning customer trust. We're also getting more data from our customers that goes into our maps and our product improvements. We make it, therefore, even more difficult for our competitors to win the next upcoming deals. And that's where this continuous strengthening position comes from. And that makes me very confident about the future. And with that, I'll hand over to Mike who's going to tell you everything about Enterprise, thank you.

New opportunities

Mike Schoofs – TomTom – Managing Director Enterprise

Good morning everyone, in the room, and also at home. My name is Mike Schoofs. I've been with the company since 2005 in several commercial roles globally, managing Consumer as well. And today I'm leading the Enterprise business unit. So, we've heard and we're all super excited about the improved new map, which improves our portfolio and also adds a lot of value to existing customers and new customers. But I'm also here to talk to you a little bit about opportunities next to all of our excitement. And there's three things I would like to go through. First of all, I would like to zoom in a little bit on the landscape. What is actually the location technology space looking like? What are the industry needs? And, second, I would like to look a little bit more into how our product-market fit works in Enterprise, how we solve the needs of the industry. And finally, I would like to look into what it means for opportunity and growth.

So, let's look at the location technology market. Here, you see a graph. Today, it's roughly €2 billion, and this is a number excluding automotive, but it's growing quite fast, with a CAGR of roughly 7%, to €2.5 billion by 2025. Now, why is that happening? There's a lot of things going on.

If you look at location, location is actually everywhere, the map is increasingly playing a key role in our daily lives. And we don't all see the map. It's in the background. It's they're playing a silent role, but a very, very significant role. And we're going to look into some examples a little bit later on. But if you see, for instance, on our mobile phones, which is certainly part of our daily lives, seven out of the 10 most downloaded applications that we use, are actually depending on location in different shapes and forms. And again, sometimes in the forefront, but also in the background. And it's quite important. Location-based applications can play different key roles, from navigation to ecommerce, to social media, to travel, there's multiple examples there. And actually, the map is always playing a role in a unique set of use cases for each of those industries and markets with the location tech. Now, let's look at two examples, where actually what's going on with location is in the background.

So first of all, ride-hailing. Let's say you're a passenger and you're arriving in an airport. You arrive in an airport and you have different ways of going to different terminals. Right, so the terminal can be already quite complex. But to allocate a driver to you as a passenge – it's quite important to match this well. There are thousands and thousands of routes being calculated in the backend to get the right driver to you as a passenger at the right time. That's one, then you step into the car, and there's multiple routes, right? You want to make sure you get there safely, fast, avoiding traffic, road blockage, one way streets. And then you arrive at your destination, you get dropped off. And also that needs to happen in a safe way – at a safe spot, in a legal spot. So, those are key things happening. So, in this one example of an experience front-to-back, there's a ton of map data working in the backend. And mind you, there's 10 billion of these rides happening on a global scale every year. So, you can also imagine the vast amount of location data and work to go there, for those businesses in those industries, to offer us as a passenger, but also the drivers, a very smooth experience. Because that's key. And there's also competitive landscape. So, they need to perform, and need to make sure that they also deal with the rising demands of drivers and passengers.

Let's look at food delivery. So, let's say you live in an apartment building, and you ordered food from your favorite restaurant, which is located in a shopping mall. So, a carrier gets dispatched and needs to pick up the food from the restaurant. And there's multiple entrances to a shopping mall, right? But he needs to be on time, because the food is ready. And then the courier goes on his way. And there's multiple routes as well, and especially bicycle lanes in this case. And then the courier arrives at the apartment building, where we're waiting for the warm food. And the question is okay, on which floor is the entrance? Because as an end user, we don't want to run out of the apartment to go to the entrance. We have a high expectation that

the food arrives at our exact location, at the right time. So, which doorbell to ring? Which floor to go? There's a lot of things happening again. And this is also an example where location, in the background, is playing a crucial role for these businesses. And for these businesses, as we've heard before, it is critical that end-user experiences and estimated times of arrival for the food, for the driver, for the passenger to be dropped off – that is key in that business model. So, every bit of information to help a better experience is super, super critical for profit and loss. And it's only increasing. So there's more and more examples of this as well. Like your fleet and logistics companies, right? The driver's safety, and the safety of the other cars around the, let's say, large vehicles. Also there, estimated time of arrival and drop-off is quite critical.

So, there's tons and tons of examples where there is more and more of a rising expectation from the industry for a smarter map. A map that is actually continuously improving in quality, to cope with the demand and the needs of the industry. A map that offers global coverage. So, it's key that a lot of these players in our industries are global – they want the same experience for their customers on a global scale as well. And a map that is always up to date, especially with the changes in the road network. A map that offers high accuracy and precision and offers rich features as well. There is a need from the industry. And we are building that map, we are building that smart map.

Now, what does it all mean in terms of product-market fit, right? So, I want to go into more detail about our segments and a couple of examples and what exactly the new map will do. Because we've seen coverage pictures before and after, but I think it's also key to say: "Hey, this is what we exactly, as an example, offer, that we don't offer today to address these existing segments and new segments as well."

So, if you look at a few examples here, there's ride-hailing. And if you go back to arriving at an airport at the right terminal, signboard information is also key so the driver can find you and you can find a driver. That is new, and it's quite critical for those businesses. Also new, accurate pickup points for exactly where you need to go. And also up-to-date maps. Up-to-date maps are always critical, but now also more and more to the minute, especially for these cars, because that's the allocation in the calculation in the background. Food delivery, a segment that is new to us. So, that's unlocks already a new segment in the market. But also there, the example of the building footprints. So, in those seconds, but also minutes, that a courier can lose, with new features and building footprints, the food can arrive warm at the doorstep. And that makes a big difference in an impact for those businesses as well. And another new segment, which is travel. And we're not playing in travel today. There's a lot of visualization that plays a key role. So, if you think about the examples, if you want to explore when you go on a trip, you want to understand what is around you, you know. You want to understand also, for instance, pedestrian information. How long is a walk in a city center to go to events and to venues? Those are critical things that we don't offer today that we will offer with our new map.

A second example is coverage. So, we spoke about global coverage, which is key for our existing and new customers as well, but also deep coverage. So, richer coverage. And an example here, we've seen a few pictures, but this is, again, Southeast Asia. This is Jakarta. This is a market for local players, but also for global players, which is rapidly growing, and especially in our industry. So, what you need here, and what we will offer here, is much more dense information, where you see side streets, you see address points, building footprints. And that is again, key for us to be successful and to grow as well in terms of map coverage.

The biggest step, however, is the fact that the map is collaborative in nature. We heard it before. So, where data from our customers and partners and future partners can act as 'super' sources to constantly improve this. And this is key. We open our technology to others, to layer the data against a consistent base map, which can be easily integrated. And it's exactly like Michael was saying, this is key for us in our business, this is a door opener. So, this opens up the world for us to a lot of new companies, the larger technology

companies of the globe, but also mid-size and smaller companies. This enables us to sit around the table and talk at a different level, a strategic partnership level, because they understand this and know the value of building a partnership ecosystem together to build that smartest map on the planet. And we are already engaged in this, quite a while, actually, with a few global players, customers, and new players.

So, we're already talking and we're engaging, actually on deeper levels as well. And there's a lot of enthusiasm, there's a lot of engagement, there's a lot of encouraging feedback. Because they like this, they need this, they see this, and they want this. So, it enables us to talk and to open up these doors. And I think what is key for us as well, is that we have the knowledge. We have we've built knowledge over the last years. For instance, I'm going to take the example of TomTom live traffic. So, we opened up also that technology years ago for data and probe data to be added to the base product, and to constantly improve the quality of traffic. And that's why today are leaders in traffic globally. And that knowledge and also those experiences – that learning from what we have seen there, and the value that offers to our customers and new customers well – is key for us. And we will apply that knowledge now to the new mapmaking platform as well, in the ecosystem we're building. So, that's also a big plus for us, that we have that experience already.

So now, what does it all mean? How does it actually offer us, in our business units, room for growth and opportunities. There's three key drivers. The first one is we want to gain market share with a much stronger portfolio and much stronger offer. We want to gain market share from our competition. And in existing segments, which are fleet logistics, ride-hailing location analytics, consumer tech, we will gain market share with existing customers, where we add more value and grow together, because that's also key. There's a lot of potential still there, but also with new customers. So that's one key driver, increasing market share in the next years to come.

The second part is that we enter new markets. And we saw a couple of examples already of new markets. But I think it's quite important to list a few of them again. Food delivery. It's quite related to the on-demand sector, also with ride-hailing. But we're not playing today in food delivery. Now today, with a new map, we will, because we unlock all these new use cases, also in travel and social. And if you take those three segments, already, in location tech it's roughly €500 million of market value. And they're growing fast as well. That's where we will enter with a really compelling offer. So, a couple of examples here are food delivery, I think we went through that already a couple of times. But also social and travel, in which search and visualization are key elements that we don't offer to the same extent today that we will offer in the future. And, as a last bit, by partnering in that ecosystem there's a lot of use cases that we don't even think about today, that we haven't discussed today, that actually you also unlock with those partnerships. That's the beauty of it.

Thirdly, we spoke about already, is the application layer. So, if you look at our improved base map quality, the value added layers. We also invested to improve the application layers with APIs. And we launched this year, also, the Navigation SDK. And those are key, especially for our developer audience, to really build and grow their business with those applications. And we did that to enable that for them. So, we have also the channels to go there, the channels to invest and get more exposure in the developer community. And that's quite important because it gives us immediate product feedback and insights into what we're doing. And the second thing is, we tap into potentially larger customers as well early on.

Those three divers together, result in an overview where we significantly increase our addressable market, we gain market share, and we unlock new segments as well. And that combination – if you look at the first block of the graph, again, that's location technology – today, we roughly play in half of the market, with our existing segments. In the future, if you take all the new segments I spoke about, travel, social media, food delivery, and other segments that we unlock, you get to play in more than 80% of the market. This is key for

us to build that success, to enter these segments, and to gain market share as well. And that's how it gets translated into consistent growth.

So, I want you to take away three things from today. If you look at, let's say, the location space, where we operate in, we see a rising expectation from the industry, from the end users, and from our business partners, to support them to be successful. And that requires a smart map. We are building that smarter map together with that partner ecosystem. And that's what's happening right now. And we see that there's already a lot of engagement, and that there's more excitement to come as well. We see there's interaction. There are markets that we will enter, together with partners as well. And that all gets translated into growth. So, I'm also, like all the rest, quite excited about what we're doing here and about the opportunities that we are unlocking. And also about writing the next chapter for TomTom as a company with this new map. So thank you for that.

Q&A

Marc Hesselink – ING – Research Analyst

Thank you, Marc Hesselink, ING. Actually, my first question is on – a bit of explanation on the relationship with the open-source mapping platform. If I understand correctly, you're going to take the data out of the open-source mapping, but then you're also going to give your own data back. So, your initial base layer is going to be exchanged with the open source. Is that correct?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, there's a nuance to it. Let me hand that over to Laurens.

Laurens Feenstra – TomTom – Vice President Product

So, indeed, we take data from OpenStreetMap, while adhering to the policies and guidelines of OpenStreetMap, which includes, when you mix and match sources, providing data back. The most important part is, for the key use cases that we support for Enterprise customers, it requires both the base map as well as the TomTom value-added proprietary features that we then add on top.

Marc Hesselink – ING – Research Analyst

Okay, so the base layer part, because you take it you also have to give it away, right? Do I understand that correctly? I mean, there's some base layer that you're now giving away, because you decided it is not value-add anymore?

Laurens Feenstra – TomTom – Vice President Product

That's right. That's right. Yeah, and for instance, on the road graph, OpenStreetMap has a road graph, and TomTom has a road graph. And the combined road graph is 20% larger worldwide than any of them separately.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

But Marc, there's an important distinction as well. That doesn't mean that the base map itself is open source necessarily, because there we process the data, create a consistent network. That is, of course, proprietary technology that is applied there. But the underlying data that is used to create that graph, that is an open-source product itself.

Marc Hesselink – ING – Research Analyst

Next question is actually on the backlog, which was very impressive number, I think. You gave away a little bit what was driving it, including winning a new OEM. Is this such a significantly large OEM that it was the big driver behind this backlog, or are there also all kinds of bits and pieces which brought you to this number?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, it's a bit of a mixed bag. So, there was a good consistent win rate with significant contracts. We've told you about how you Hyundai-Kia, as one, but there was also a leading OEM which was also a significant win and a significant amount that helped to fill that backlog. It's not one contract, but it's a number of them.

Marc Hesselink – ING – Research Analyst

Just to be sure, the OEM, when will that contract start?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

I think SOP is for end of 2024, 2025. Around that timeframe. What you will typically see when you win a contract, there's a period of development, and then it starts kicking in.

Marc Hesselink – ING – Research Analyst

And then the last question is actually, what are you seeing for Google in Automotive at the moment? I mean, a few years ago, that was the big thing, that they would really enter and you had the Renault contract, and Volvo. It's a bit more quiet today. So, what do you see?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

So, that was a big thing, of course. “Google's coming in, close the hatches. What are you going to do against that?” We've seen some wins, and they are significant, let's not make it smaller than it is. But a couple of things have happened. So, the number of wins – after a strong start, they haven't added more contracts. So, I think that's one sign. And the second sign is that there is a bit of feedback coming now from the carmakers. That is not all that positive. There are two main issues. First of all, there’s a lack of visibility on the product roadmap. So, if you build a car, you want to plan three to five years ahead. But the information you get from that important software vendor has a much shorter timeframe. So, that is emotionally very difficult for carmakers to build a car, not knowing what will go into the dashboard when SOP is there. That's a problem. The other problem is that there’s very little visibility of what happens to the car after it left the factory. So, another thing that we pick up, is that the data sharing is not there. So, you have it, you ship the car, and ways to interact with your customer are not that great.

Now, what does that mean? I think the model they have with GAS, everything in one thing, take it or leave it, and you can't change anything, and we can't tell you about the roadmap. I think that model's not going to work. I think that will sizzle out. That's not to say that Google will withdraw from the space, I think that would be too optimistic. But that modelistic approach of this is what it is, and you have to wait to see what you will get by the time the car leaves the factory. My personal view is that that is not a winning approach.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

[Instructions for online participant in the Q&A session]. Please go ahead.

Mohit Agrawal – Counterpoint Research – Associate Director

Thanks. I'm Mohit from Counterpoint Research, and I do have a couple of questions. So, one is, in the Enterprise segment, you are addressing different verticals. So, what is your approach to the market. Are you going to direct sell, or will you be partnering with some other partners to do the selling? And secondly, logistics is another big area for you. So, do you also plan to get into indoor navigation?

Mike Schoofs – TomTom – Managing Director Enterprise

Two great questions. So, to enter the new segments, but also expand our footprint in existing segments, there's a few things happening. So, we're investing in sales capabilities, because it's quite important to start going after new logos as well. So, we're investing on the OpEx side, and also in marketing as well – in the brand. So, how we build the brand and how we create awareness in those markets. And to your specific question, we are both partnering up and going direct. Because if you go – we want to go after larger companies, but also mid-size, and the long tail – you need to have an indirect model as well, where you have partners adding value, and going after that for the pre- and also the post-sales. So, there's a clear strategy there, per vertical as well, where we want to go, geographically, to expand our footprint. Fleet and logistics is a very important one, because there actually two things are coming together – the new map, but also especially the application layer, with the navigation SDK, which we just launched. So, that's for us also key. We say: "Okay, we have a long target list globally for the larger parties." But once you go into those larger parties, well, you see there this interconnectedness as well, with a lot of value-added resellers and system integrators. So, that also opens up a lot of partnerships around those players, which is quite interesting. So, it's a combination of those two. But there was a clear strategy rolled out to make sure we make those steps per vertical, per region, and how we do that step by step.

Mohit Agrawal – Counterpoint Research – Associate Director

And how about the indoor navigation? For example, in a warehouse, logistics, you need indoor navigation.

Mike Schoofs – TomTom – Managing Director Enterprise

Indoor? Well, that's exactly in the ecosystem we're building with the partnerships, right? So, the power of this whole business model is that you get data back as well from your partners, where you strengthen your map. And you unlock, for instance, to your example, indoor navigation, which today, we are not playing in, but in the future, we will. And there is a lot of use cases, like we just saw in terms of delivery, last mile, we play a key role in that customer satisfaction. Absolutely.

Mohit Agrawal – Counterpoint Research – Associate Director

And, finally, because you are going to play in a big way in ride-hailing, as well as food delivery. So, are you also involved in dynamic route optimization software?

Mike Schoofs – TomTom – Managing Director Enterprise

That's a good question, but it's maybe more of a technical question that my colleagues can reply to.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Dynamic? What was that again?

Mohit Agrawal – Counterpoint Research – Associate Director

Yes, dynamic route optimization software.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Is that, that you mean balancing the load of the road network?

Mohit Agrawal – Counterpoint Research – Associate Director

Yeah, that's right.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

No, that's not something that's currently on the roadmap.

Mohit Agrawal – Counterpoint Research – Associate Director

Sure, thanks.

Laurens Feenstra – TomTom – Vice President Product

But if you mean with dynamic that when the road conditions change, let's say traffic conditions change: “Do we have software that is able to reroute?” The answer is yes. We have both the map and the traffic signals that allow, let's say, a ride-hailing company to do it on their own. And we have the routing software that uses the same signals to reroute when necessary, when the road conditions change.

Mohit Agrawal – Counterpoint Research – Associate Director

Got it, thanks.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

A question from Andrew Hayman.

“You indicate that you are the first propriety map to open up to open-source information. Do you see a significant risk of the other proprietary map companies opening up their map as well? If your competitors were to open up their map, how will this impact your competitive position?”

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

I don't know. That possibility is there. I don't know – I can't speak for the competition, how are they going to react to this. I think this is quite new and disruptive. We've seen the limitations of proprietary mapmaking and the cost associated to it. The ever-increasing requirements for accuracy and what not. This is an effort to take those constraints and bottlenecks away, and allow the world, collaboratively, to go faster. And it's important to understand that for most companies mapping in itself is not a differentiator. They just want to have access to technology to enable their own business case. But it's not helping them to win over competition. So, there is a desire, and a requirement, and a willingness to share the data and bring that back to a platform.

Now, is there room for more of those initiatives? Or is there a winner that takes it all? I don't know the answer to that. I don't know how the competition is going to react. It's not that easy. It takes time, there's a lot of technology at stake here. You need to be a map builder. Otherwise, you don't understand the complexity and intricacy of what you need to do to get to this point. There are not that many around. And I can't predict how competition is going to react. What we do see is that the reactions of, in particular large tech, that we've opened up to kind of in stealth mode, and said: “This the plan. This is what we're going to do. What do you think?” That really was a phenomenal experience – they said: “Yes, we understand, this makes sense. This is what we need, this will simplify our own operation. We can now start concentrating on the things that are differentiating.” And we see this as the beginning of a path towards a very comprehensive competitive map that will only grow in strength over time.

And again, I don't know what competition is going to do. We'll see. But we have a head start, in any case, of a couple of years. Two to three years, I think, is what it takes anyway. And in the meantime, of course, we continue to build bricks, and relationships, and partnerships, and collect that information and data. I don't think you can do this from the ground up. I think the capital requirements – for a startup this is not the place where you want to – that's not the hill you want to die on. It's too capital intense. It takes too long. You start with a product without sources. You don't get the signals. And indeed, what we have seen over the past five years, a lot of clever people building those mapping companies for autonomous driving and new ways of mapping. Very smart people, very creative. But the business model is just too hard. The revenues are too far out, the to-tackle problem too hard. There's this awful chicken and egg problem – do I get the signals, do I give to customers? So it's not an easy space, I think, for startups to come into. But we have established players, and we have other companies. We never underestimate the market, and what companies can do to us. But we feel good where we are today. And it will be important for us to build on what we have now, and keep accelerating in the next three to four years, in order to keep strengthening that proposition.

Michael Harrell – TomTom – Vice President Engineering

Yeah, I had a point too which is, it's not easy. So, it wasn't easy for us to switch our base map from what we had before to be based on open. It took us a lot of work, a couple of years of effort on getting all of our technologies and capabilities, everything we're doing. In fact, that base map has been a big problem for everyone. You can't actually take a bit of what's great about TomTom and a bit of what's great about another competitor and blend that data together. What most companies do is they decide to take a continent from one and then the continent from the other, because there's no borders. Or where there's borders, they try to minimize it because then they've got to seam it together. It's super hard to bring maps together. So, if a competitor decides to switch over to the base map, we welcome it. Because in the end, they would actually want to use TomTom's Maps Platform. Why? Because they would spend a significant amount of money to just recreate what's already available, done. It's there, start using it. Why spend significant capital to use what's already available? Put your great products on top of it, compete with us on our platform, and we'll go from there. We feel really strong about the data that we have on top of it with our traces. We have so much SDO data, so much trace data. We're improving the map in a significant way. Our routing capabilities – all the different things that we're putting on top of it, that's where our real differentiation is happening. And so, yes, it's a great.

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Wim Gille, from ABN AMRO - ODDO. I got a few questions, maybe a bit of a devil's advocate to start off with – I think for Harold. Last Capital Markets Day, we also had quite optimistic mid-term targets in play. I guess we're falling about €100 million in revenue short of those targets. Obviously, the world changed. We had COVID. We had chip shortages and whatever, and OEM production volumes dropped by 20%, which was not baked into the original plan. So, how can you kind of give us a bit of comfort on kind of what's baked in, especially on the Automotive side, for your current 2025 targets? That's my first question.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, so thank you for asking that question. So, we had a Capital Markets Day, I think it was in 2019. And outlook at the time that we presented to you was better than we have actually delivered. And, we wrongly,

or did not, predict, of course, the pandemic chip shortages. So, I would classify those as extraordinary conditions that were very difficult to predict. And the numbers you just say, about €100 million short – yes, that's probably where we are. And it has just been painful to see that happening. At that Capital Markets Day we felt good about a couple of things coming together – new contracts, good order book. And when it didn't happen, it was a bitter disappointment. But it is what it is. We can't change that.

I think for now, we've given you a best estimate of where we think we will be in 2025. There's a couple of pointers here. Of course, a strong orderbook in Automotive. It's not guaranteed revenue, but it's very predictable revenue. And we put it against an Automotive market that is slowly but surely recovering, in 2025 to the levels that we've seen in 2019. So, that long – that's the time we think it will take to recover, completely, from where we were at the Capital Markets Day in 2019. But we think it will grow, based on the orderbook. And there's a lot of evidence to show that that is a reasonable assumption. Of course, in Enterprise, new markets, new products are harder to predict. But we feel good where we are. We bring some unique capabilities to the market. We have now learned from the feedback from leading customers that it is exactly what – this is one of the things they never dared to ask for. And now they're saying: "Oh, yes, that's great." That gives us a good entry and a good talking point to develop those new markets. So, I feel comfortable that we will hit that number. We do this against a global picture that is murky at best. We don't know exactly what will happen. We've taken a balanced view, I think. But what we have not taken into account is all sorts of extraordinary bad things that can happen to us, which you cannot discount completely, but it's not part of our outlook.

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Very good. I would like to move to the second question, and it's a bit of a follow-up on what Marc asked. But you had an astonishing order intake this year. I think it's more than €750 million – let's say my back-of-the-envelope calculation is a bit right. But you mentioned four big cases that are driving that order intake being Hyundai-Kia contract, CARIAD, Fisker, and a new OEM? Possibly quite a few other wins as well? Can you rank them in order of magnitude for us, on kind of what's the biggest driver out of these four building blocks, all the way down? And also, as a follow up to that, you mentioned quite consistent win rates this year with the order intake. Is this win rate more or less consistent with the 40% market share that you are, let's say targeting, in 2025. I think it's for Antoine.

Antoine Saucier – TomTom – Managing Director Automotive

Yeah, so the ranking right, as Harold said, it's a mixed bag. So, you know, we do not control the sequence of our customers' decisions. So, you know, from one year to another, you have a couple of renewals, you also have couple of new opportunities that are up for grabs. This year is not particularly different than any other in terms of mix. But in terms of size, it is a remarkable year. I think that's what we can say.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Maybe one addition. The CARIAD announcement was from last year, so that's not included in the increase from €1.9 billion to €2.4 billion.

Antoine Saucier – TomTom – Managing Director Automotive

And your second point. Is that consistent with the projection in terms of market share?

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Yes. On one of the slides, you had kind of a projection of your market share from current levels. I think it was 35% in Europe, to 40%. I don't remember the market shares in the US. But the order intake that you've had this year, is that consistent with the numbers that you have, in terms of market share for 2025 targets?

Antoine Saucier – TomTom – Managing Director Automotive

Yeah, so it all ties up. So, Automotive is long cycles, right? So, in 2025, you will still be shipping on some contracts that have been closed a couple of years ago, as the ramp-up can be sloped, and the ramp-down can also be significantly progressive. And so, this market share forecast, indeed, is a mix of everything we've won before and was already in the backlog and what has come this year. Plus, we take into account the evolution that we've seen on the forecast of our customers, and this is where, you know, COVID, and everything comes in. That's all factored in, and gets us to the numbers that we showed.

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Very good. And then a last question on, let's say order intake and growth. You see, there's obviously three main building blocks in Automotive, which is the base maps that you sell, and the services that you sell on top, like traffic and EV infrastructure, etcetera., POIs and those kinds of things. And then the IVI software. So, which buckets do we need to look to for the biggest growth for Automotive in the coming years?

Antoine Saucier – TomTom – Managing Director Automotive

Yeah, there as well, it's a mix, right? So, not all our customers have the same approach. I think there's high value in the full-stack navigation, and we're moving towards more and more online. So, when you go to online, there's no such thing as the map on the one hand, and software and connected services separately. It's all together as a one product, one service, that we deliver to connected cars. So, I think that's kind of the direction that this is heading in.

Then on the ADAS and automated driving. There, you have two factors, right? I've talked about the regulation impact. That is really important because it moves us from the navigation-equipped cars, to 100% of cars. And the interesting thing there is that, although there's no ISA regulation in the US, you still see OEMs moving towards adopting the same type of technology proactively into 100% of their cars for the same reasons. And then there's also demand for the higher levels of ADAS features and auto-pilot. And so, these features are quite successful. And that also requires more of our content in these cars, and then more services as well. So, the more automated you drive, the more you want to know about real-time weather forecasts, jam-tail warnings, roadworks accidents, and so on and so forth. And this is where we perform as well.

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Very good. Then I would like to move to the Enterprise part with the new, let's say, mapmaking process and kind of moving towards the OSM part – basically making your base map part of the OSM product. To what extent do you risk the current Enterprise revenues. And I get it, it takes a lot of, kind of, opportunities. But if you look at the current Enterprise revenues, I think more than 80% is uncompiled maps, which is, as far as I understand, pretty close to kind of a base map that you deliver. To what extent do you run the risk that you're cannibalizing on those €140 to €150 million in revenues on that?

Mike Schoofs – TomTom – Managing Director Enterprise

Yeah, there's a couple of things. So, first of all, it's not all uncompiled, and it's not that the base map is the same as OSM. So, there are a few differences. So, there's two parts. First of all, we have our existing customers with also long-term commitments. And we're opening up to our existing customers, but also to new potential segments, with our new Maps Platform. That doesn't mean we throw everything overboard from today. So, there's a process going into that making sure we guide both, because there is a long-standing partnership with a lot of our customers.

The second thing is that by using the new Maps Platform, you actually use your base map also as an entry into those new markets, right, where you attract a lot of you potential business partners that you don't do today. So you extend your, like I also demonstrated, you extend your addressable market massively. And then you start adding your value-added layers, and maybe also private layers, and your application layers, where there's a lot of margin and money as well. So, that's the way you start building that revenue, without diluting it short-term.

So, it's a process between short-, mid-, and long-term, where you take your current partners by the hand. And where necessary, you move over faster, depending on their pace and their needs. So, that's the whole dynamic. But, short-term, I don't see a risk of dilution. Or mid- or long-term. It's a very clear path forward. We open up to a much bigger market, with an entry point, which is the new Maps Platform, and you start building on that as well. And guiding our current customer base by the hand.

Michael Harrell – TomTom – Vice President Engineering

Let me add one additional point, because I keep hearing the term base map being used. I want to make sure it's clear – that everybody understands what the base map actually is. The base map isn't OSM. The base map for us is just the road network stripped of everything. It's the geometry of the road. So, then we add in all of the TomTom features onto that road geometry, that makes TomTom so great for everything it does. People could still use the OSM features that have been added on, if they so choose to use that. But I just wanted to make sure it's clear what we're all calling the base map. The base map for us is the raw geometry. Not the names, acronyms, phonemes. Not one-ways, turn restrictions, blocked passages. All these things you think about that are super important for the map. We keep that still as added value, and still license that content out.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

We will do one more question from Wim, and then we move the questions from online to the second Q&A.

Wim Gille – ABN AMRO - ODDO BHF – Head of Equity Research

Last question, and on Enterprise. If you look at, kind of, your revenue split there. The vast majority is currently uncompiled maps that you deliver to, kind of, a few big tech companies that have the capabilities and the skills to actually work with those uncompiled maps. If you kind of want to open up all these new, let's say applications, you need to become a lot stronger in, let's say, the other side of the Enterprise segment – on API calls and what have you, where you, up to recent history, did not really break into the hegemony of Google and Mapbox, and what have you. So, how do you feel about the product portfolio? Are you now ready to actually target these two big companies in that particular part of your segments?

Mike Schoofs – TomTom – Managing Director Enterprise

So, there's a couple of things happening, right? So, your – I'm not going to call it the base map – but your base quality with the new Maps Platform, that already increases. So, automatically, your application layer that is based on that quality also increases. But we add a lot of APIs as well, and we invested in improving those. And again, launching SDKs is quite important, because you tap into that developer audience. So, you say: "large customers," but the developer audience goes through all customer layers. From a large customer, to a small one, to a mid-sized. So, that is one thing that is new, that has changed a lot, because the quality goes up. And also on the product side we've invested, but also in terms of how we address that audience. So, we have a developer portal with digital channels. We have a lot of eyeballs. And we're also optimizing the way we treat those, because that's lead generation as well.

So, there's a lot of attention and awareness you create, but to make sure you compete and you go into consideration and conversion. That's a long funnel that we're investing a lot in as well. That also has a massive impact, next to the product, how you do that – how you address that market. And finally, if you say: "Are we ready to compete?" Yes, definitely. I think if you look at, again, back to that partnership model, the quality and the use cases that you unlock, that enables us to compete in this space, which is a growing space, indeed, dominated by an incumbent. But definitely, in terms of product quality, market approach, digital approach, and how we do that, there's a clear road.

Products and business model

Johan Land – TomTom – Chief Product Officer

It is great to be here with you today. There's a lot that has been building up to this moment. We've been working on this for a long time. And it's just fantastic to be able to share this with you today. So, my name is Johan Land. I'm the head of product at TomTom. And in this role, my responsibilities are to ensure that we successfully build and invest into the right products, and that we go to market with a scalable and profitable business model. I'm now at TomTom for one and a half years. Prior to this, I spent 10, 15 years in various companies on the West Coast, including Google, YouTube, and Waymo. And what brought me to TomTom was the sheer size of the opportunity for the company. The strategy we've laid out is creating a truly unique and hard-to-copy opportunity. And I want to share three specific things about this today. Firstly, the product portfolio we're building around the new maps platform and how this is solving problems for our customers. Secondly, the business model we're pursuing and how this improves profitability. And lastly, I want to share the ecosystem that we're building around this and how this leads to a strong long-term position.

Now, to start off, the products that we're building are targeting application developers that need geospatial services. And we serve a wide set of different application developers. In terms of size, it's everything from the very largest tech companies to small independent application developers. In terms of in industries, it's everything from automotive applications, to social and travel applications, and the applications from mobile phones all the way to embedded in cars. Now, overall, we estimate that 20% to 40% of all applications in the world are using geospatial services in some shape or form. And while there are wide differences between all these applications, all of them are built on top of a base map. Now, this base map is the foundational product of our whole product portfolio. And it lays out the core features of the world, the road network, the cities, the countries, the coastlines, the lakes, and the mountains. Now, there are only five global base maps that have ever been created through human history. And there hasn't been a new global base map created in over a decade. Now, we are TomTom, we have one of these five base maps, and it’s a very unique asset that makes us able of providing the products that we are. Now, the base map, however, it lacks the data that most customers need in order to create great applications for their end-customers. To solve this, we have what we call value-added data that sits on top of the map data.

Now, for example, the road network and city names are in the base map. But the speed limits the lanes, the traffic information, and the restaurants, and the EV charging stations, all that sits in the value added data. An example use case for the value added data is one of the major tech companies that has their own web search solution, and they need to answer queries like: “Where is a great Italian restaurant near me?” Or a question like: “Get me a list of all the movie theaters in Singapore.” Now, to answer these types of questions, they need to marry the geo-data with their other proprietary data that they have. Another example would be a social network, needing to show the location of all my friends on a map. Similarly, there they need our data. Now, the use cases for the value-added data in the portfolio are typically larger companies that integrate this data themselves into their solutions. This typically not only creates a deep dependency on the data, but a dependency on highly critical data.

Now, not all application developers are of a size where they can build directly on top of the raw data, therefore we provide services. Now, routing is an example of a service where we provide an API for customers to request essentially the best route from point A to point B. And for example, a company that has a fleet of vehicles and needs to optimize the route planning, would make use of such a service. Now, this includes finding the fastest route to avoid traffic jams or ensuring that a large semi truck is not sent down a road with overpasses or turns that it can't make. Now, logistics is an industry with very slim margins. And having the best route in an industry like this directly impacts the bottom line. So, routing for them is an absolutely crucial service. Now another example of services is search. Now, this is where an application

developer would look up an address or city, or a point of interest. And an example of this would be an electric carmaker that needs to locate a charging station. But not only a charging station, but a charging station that has the right plug, that is available right now, at a price that is reasonable. And ideally, a charger with a good restaurant nearby. Now, this same customer of ours may also use our routing service to route the car to this charging station. Now, in the overall electrification of the automotive industry, these types of services are absolutely crucial. And overall, in our product portfolio, these services provide a low-friction, low-investment, and fast way for our customers to access all our great map data. And for us, it creates leverage for reuse, as we invest once into building these services and then sell them multiple times to customers that, each of them, avoid having to make that same investment.

Now, we do not stop at only providing the services for customers. We also develop SDKs. Now, SDK,s they can be viewed as us kind of providing packages or building blocks. And these packages, what they do is that they enable, essentially, developers to quickly bring in a great experience into their applications with a very, very limited investment on their side. So, examples here would be a large logistics company that has their own mobile application for their drivers. And they want to extend this application to also have say, turn-by-turn navigation and turn-by-turn navigation that integrates into their overall planning system. Now, with our Navigation SDK, they can do this with less than a day's work and have world-class navigation inside their own proprietary app. Now, another example here would be an OEM that wants to integrate search, traffic, maps, and navigation in their built-in systems in the cars. And for that we have an out-of-the-box SDK for doing this. The SDKs in our product portfolio are the highest-value products. And they tie together all the other products, all the way from the base map to the value-add, to the services, and in a very easy-to-use way for application developers.

Now, in terms of business model, the base map essentially serves as the low-cost entry point into the product portfolio. There's limited restrictions, but it also has limited data and SLAs attached to it. The purpose of it is to encourage application developers to develop on top of our base map. Now, remember, there are only five base maps in the world, the base map integration and dependence is typically very deep. As such, this serves as our vehicle for selling the value-added data. Now, currently, none of our competitors are providing this low-cost low friction entry point into their product portfolios, so this is new. For the value-added data, it is proprietary, and we break it into packages for different use cases and for different geographies. And as such, a customer can choose which package they want. We price it in a subscription like model. Now they download the data, and as long as they're subscribed, they have the right to use it and receive updates for this data. Now, there are significant licensing and usage restrictions on the product to avoid channel conflict and to enable high price realization. But also here, the model of having detailed packaging and distribution, under a new recurring revenue model, is new to the industry. And early feedback on this has been very positive.

So, for the services, they're sold based on usage, similar to how most API businesses are run. And for some segments and services, the billing is based on number of requests. For example, the customer would pay based on how many times their end users are searching for an address. And for some segments, like logistics that we're talking about before, the billing is based on how many vehicles they have in the fleet. Now, lastly, for the SDK, part, we build on top of the usage of the services, and the smaller application developers typically integrate the SDKs themselves. Whereas for larger customers, we often do the integration against a fee. And in fact, for some customers, in particular in Automotive, we even do custom development. Now, we see the move here, towards clear packaging, recurring revenue, easy entry points, and a high degree of reuse as key building stones of the strategy and the business model.

Now, another key building stone in the strategy is how we are forming an ecosystem around data collaboration. And before I go into this, let me let me set a bit of context. There's an enormous amount of data in this industry. And no doubt the data is crucial and valuable. But in practice, in reality, most of the data actually goes unused. The reason for that is that it's proven difficult and costly to synthesize the data. And knowing the location of all people, and all vehicles in the world in itself is not so useful. It's only when you synthesize it into traffic jams that is truly helpful, as an example. Now, it also proves that the magic with geospatial data happens only when you put together a lot of different types of data on a global basis. So you need it all. And furthermore, handling this type of data requires a very unique skill set. So that effectively leaves most of the data in this industry sitting with our customers and partners unused. However, if you think about these problems, this is exactly what we are TomTom are exceptionally good at.

So, therefore, in the relationship with our customers and partners, we've worked with them on their geospatial data to integrate it into the Maps Platform, with their data contributions. And examples here were mentioned earlier. In fact, I had the old data. An OEM is contributing 70 million kilometers – I had 35 million, but it's gone up so much since then. So, they can contribute that data to us every day. And from this data that they give to us, we then construct the value-added navigation data, which they, in turn benefit, from as they are using our navigation services to get the value back. Another example is how major tech companies are contributing hundreds of millions of consumers' location data for us to identify hazards. So, the customers that contribute this data back to us – we take the investment to integrate the data, and they get the benefit from the data without having to take the investments themselves.

But for TomTom, the benefit is that we get to use this data as part of the overall product portfolio. As such, their data contributions are improving the overall product. And we're already seeing major improvements to our products from these types of collaborations. So, the thing that was mentioned before is it's expanded our road network by 20%, which effectively propels us to be, by far, the unrivaled leader on that particular feature. Another example is how these contributions have led to tremendous improvements in navigation data here. An example would be the speed limit coverage, which is now best among our competition. And just to make a point there, for something like Intelligent Speed Assist, having the wrong speed limit effectively leads to the product causing a speeding ticket for the end customer – like, this data is crucial.

So, furthermore, as Mike and Antoine were telling us all about, we're now seeing how these improvements are opening up new segments and customers for us. And these new customers,, in turn, they start contributing data back. Now, this creates a virtuous cycle, a flywheel. And this flywheel is a core component of the strategy. And we are the orchestrators. And we do the heavy lifting around the geospatial data and the services. And we control all the data, but we also create the rulebook for the participants. And we integrate the data back into our overall product portfolio that we package and distribute as part of our value-added data, services, and SDKs. We control and monetize this ecosystem that we're building.

Now this isn't new. In many companies and industries, these types of flywheels have been deployed and proven to be a key component. However, in our case, I would venture to argue that is likely to prove to be even stronger. Now, the fact that there are only five base maps acts as a really strong barrier to entry in this industry. Furthermore, the complexity of the geospatial data creates the distinct need for an orchestrator of this ecosystem. Now, worth noting here is that this ecosystem is open to anyone. Participants are free to innovate in this ecosystem. Participants get access to the raw data. There's no bundling of services, so you can bring your own data and maintain it as your proprietary data. You use what you want, and you do so freely under reasonable licenses.

Now, this is very different from the non-collaborative operating model of the current market incumbent – that is Google. When using Google, you have to take all of their services. For example, you can't build your own routing, and use it with Google search. It's not allowed. Now, this makes it impossible for most customers to

truly integrate their own solutions with Google services. Now similarly, Google is not providing the raw data. And that makes it again impossible to enrich that data with your own proprietary data. So, in practice, for most of our customers, using Google is simply not an option. Furthermore, Google tends to not always be the most partnership-minded actor.

So, it's proven over and over in history here, as we were exploring the tech industry that has thrived, that open ecosystems growth takes time, but it's the way to go for faster innovation. And partner reception to this ecosystem we're now building has been phenomenal. Particularly in light of the operating model of the incumbent. So, I personally have seen deployed this type of flywheel strategy in several of my previous roles and would like to share a couple of those experiences. When I was in at YouTube, the flywheel essentially started with partnering with influencers to create better videos. And these better videos attracted more users, and the more users lead to higher monetization, which in turn lead to more influencers. That was the flywheel at YouTube. That's the core of it. Or similarly, when I was in Google Ads, it looked slightly different, but with the same principle. We built a platform for websites, and the websites attracted advertisers, the advertisers paid for ads, which made the platform even more attractive for websites.

These mechanisms are powerful. But it starts small. It starts with a first spin of this flywheel. In our case, that's a first data contribution by a partner. Followed by that leading to an improvement to a customer, and attracting a new customer. This new customer, in turn, starts contributing themselves, closing the spin. And then after that, you have a second spin of the same flywheel, and a third. And before you know it, the flywheel is spinning by itself. And we're already at a stage where we have done the first couple of spins, and it's working. The flywheel is spinning. Now, don't make any mistakes, there's a lot left to do. And we need to unlock more segments and customers. We need to perfect the platform, but all the proof points are already there. And it's at this stage, we're on a pretty firm path to creating the best map in the world, and an ecosystem that will perpetually improve the products on top of that, and create a highly defensible and profitable business. So, with that, thanks so much, and I will now hand over to my beloved friend Eric.

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.

Set for profitable growth

Taco Titulaer – TomTom – Chief Financial Officer

Hello. The last presentation of today. I'm Taco Titulaer, TomTom's CFO. I've been with the company since the IPO in 2005. And I'm going to talk about the market that we playing in business by business, talk about the outlook, and walk through the P&L – revenue, gross margin, OPEX, and free cash flow. And I end with ESG.

So, first, the market size. The market we play in, it's €3 billion, and it's growing. That €3 billion is divided as €2 billion coming from Enterprise and €1 billion from Automotive. As you've heard from Antoine and Mike, we foresee growth for both Automotive and Enterprise. Now, let me go to the market developments and outlook business by business.

So, first, Automotive. As Antoine mentioned, we anticipate growth in the Automotive market over the coming years, which is partly explained by recovery of car production, as explained on this slide. In recent years, car production has been hampered by lockdowns and supply chain issues. But following some delays, production is now forecast to gradually pick up, and we expect to beat the 2019 levels in the year 2025. In addition, navigation take rates are expected to increase from around 40% today, to 50% in 2025, due to several trends. Increased vehicle connectedness and electrification mean that vehicles will increasingly rely on software, and this is pushing software-defined vehicles, and this is pushing the take rates.

We have the right products and services to capitalize on this, and that is explained by our backlog that we have announced today. We have grown our backlog from €1.9 billion at the end of last year to €2.4 billion today. Our backlog underpins our outlook for the Automotive business and gives us good visibility regarding growth in this segment. We increased our backlog by winning multiple significant deals this year, a sign that OEMs like what they see. On top of that most OEMs are taking a new approach to sourcing for our maps and our services, as explained by Antoine. This closer collaboration will mean that our business model is more sustainable and will also lead to greater innovation. And this should result in more reliable and recurring revenue streams.

Over to Enterprise. Enterprise is also growing market, but more importantly, we think that we can significantly grow our market share here. The Enterprise market is fragmented, spanning various segments and use cases. The reliance on location technology will only grow, as location technology can now be leveraged easily and is of sufficient quality to be able to streamline operations. The breadth of the Enterprise market makes it the largest we operate in, but it's also the one that is less developed. As I explained earlier, at the start of this year when we announced our full-year results, but also with our Q3 results, we have a large customer that will use our product less, starting this quarter. And that will have an effect up until Q3 next year, as of which we envision Enterprise to grow again. So, market players are typically strong in non-Automotive features and the easy integration of the map into various applications. Historically, our investment have been concentrated on Automotive features, but we're changing that with what we have announced today.

Okay, over to our revenue. So what is shown on this slide is a mix of what we already announced earlier this year. And so that is for this year, our revenue, and also for next year. Additionally, we have announced today our ambition to grow our Location Technology revenue to €600 million, based on our strong order backlog in Automotive and large opportunities that we see in Enterprise.

Over to gross margin. So, as we have transitioned ourselves from a hardware company – 10 years ago we used to have just over 50% for our gross margin, and that has now moved to 80%. We expect that to grow further, although that growth will be limited. And that is because of two things. One, the effects of changing from a hardware company to software company – most of those effects are behind us. And the other thing is that, as our products and services will be increasingly online, it means that cost of sales will come in from cloud usage. So, we still think that there is some runway here and we think that in the midterm we can go up to 85%. Also important to mention here is that gross margin can fluctuate quarter by quarter. And that's related to if you do specific work for Automotive. We capitalize that and release that at once as cost of sales. So, that can have big effects in a quarter. For the longer term, our gross margin will be above 80%, and like I said, will go towards 85%.

Now, on our OpEx. What you see here on this slide is our OpEx expense, of course, mainly also for R&D, sales, and marketing. As explained by Mike, we think that we will need to expand our sales capacity in Enterprise, and we will do so. In R& D, we have broken it up into two segments, one is the application layer and the other is geographical data. We expect the spent that we have on our application layer to go up. Geographical data as a whole will still stay flat, although if you zoom in, what we spent on operations will continuously go down, due to a continuous trend toward automation. And those costs are in engineering, so the cost of engineering will go up. Also, to go in a little more detail. We have stopped capitalizing a few years ago. So, that means that our CapEx is at a lower level. The only things that we capitalize are lease assets and some IT stuff that we have in house. But over time, the CapEX and D&A – they will reach parity. We expect that in a couple of years from now. And that parity will be around €20 million. And as explained before on the gross margin slide, we also have amortization through our cost of sales related to contract assets, but that will not hit the OpEx.

Over to free cash flow. Not new, this has already been communicated with our Q3 results, but we expect this year to have a negative free cash flow of -2% of group revenue. We expect that to improve next year on the back of growing revenue from Automotive. A lot of the previous presenters introduced flywheel. I will introduce my flywheel for finance. More revenue will lead to operating leverage, will lead to more profits. And with more profit, we can do greater things. And that is also why the title of the presentation is “Profitable growth.” So, what we're announcing today is about growth, but it's very important to realize that we, as the management team, want to do this in a profitable way. So, the target is to have a 10% free cash flow yield by the year 2025.

On capital allocation, our balance sheet is strong, we don't have any debt. So, we have a little bit over €300 million of cash. Some of that cash is, of course, used to run our business, to fund our bank accounts. The rest, with the benefit of hindsight, is needed to be ready for an unplanned events like pandemics and supply chain issues, but also to make sure that we can be independent. What we have done in the last years, is that we have bought back shares. But that is purely to prevent the dilutive effects of our share option plans – RSU plans, that we have internally. We have enough treasury shares in house to compensate for that for the coming years. So, I don't expect to buy back any shares in 2023. If we reach that level of profitability, and it is sustainable, and there's kind of a short- to mid-term outlook that we can continue on that path, we will we think and rediscuss capital allocation. But for now, we do not have any short term plans.

On ESG, we have identified five themes. So, the team has worked hard and interviewed a lot of people – not only employees, but also customers and suppliers. And I've identified five themes, which we think are important to track and to report on. They are on the slide. First and foremost, we think that with our technologies, we can reduce congestion, and we can bring people quicker to their destination. And the side-effect of this, is that it will reduce emissions. Two of the themes are people-related. As explained by Eric, Johan, and everyone before me, the most expensive asset, but also the greatest asset that we have, are people. And so that is also why we want to focus on that. So here's, we want to be an employer of choice.

We measure that with biannually, or twice per year – we do an engagement score. And we also focus on diversity and inclusion. Cyber is important. We have a target that we want to have our engineers certifiably trained, so that when they built their products, they have security and privacy in mind. And lastly, CO2 emissions. We want to become carbon neutral by the year 2030.

To summarize, so, today, on the back of this huge increase of our a backlog, we have given our guidance for 2025 to reach €600 million of Location Technology revenue. We have a great new product offering that will benefit Automotive a lot, but increasingly also Enterprise, because it will open great opportunities. And we have set ourselves a target for free cash flow yield of 10%, to be reached in year 2025. And with our ESG themes and targets, we want to all do that responsibly. That concludes my prepared remarks, and I want to hand it over to Claudia for the Q&A.

Q&A session

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Yes, thank you. I first want to go to some online questions, because I promised that before the break. So let's, let's go into that. I think some of them are probably already addressed by previous speakers after the break, but let me start with Emmanuel Carlier from Kempen.

“Could you give an overview of the competitive landscape in the Enterprise segments and who are large players in terms of market share? And how do these partnerships that we have announced earlier today impact our pricing?”

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, so the Enterprise world. It’s a bit of a mixed bag, obviously. So, we have a very large dominant player there who is specialized in APIs and services, we call that company Google. And we think they have a dominant market share in that segment, but the Enterprise world is bigger than that.

There’s a large number of companies for which the Google offering doesn't work. Because it's not flexible enough, because you can't change it, you can’t optimize it according to your own needs. And that market is dominated by, let's say, the large tech players that we all know. There, Google is not playing, and we have a very significant market share there. And most of the large tech players are partnering with us.

And then there is a third market segment that is for, let's say, more high-value specific technologies that are driving fleet and logistics, and delivery – not from a raw data, or data product perspective, but from a service perspective, typically the smaller operations. That is a market where we currently do not play, but wherein we are investing. We have some great assets, our new Navigation SDK and other products, with which we think we can make significant inroads in the next couple of years. Now, I hope that answers your question.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Yes. I've got another one that’s bit more Automotive-oriented. So, let’s see, I think Harold and Taco can touch on it in the first place.

“The share of level three to five automation will become significant as of the late twenties. Today, we're seeing mainly lane departure warning, automated emergency braking, etcetera, which may not be the most interesting ADAS application for you. But, thinking ahead. The emergence of level three and higher, how should we think about the expansion of TomTom's addressable market in the Automotive space on the automation side?”

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

So, perhaps, dampen the enthusiasm and optimism a little bit for level five. I think that is been postponed several times. It keeps being postponed. And that is basically the industry telling us: “We don't know when it

will come," and that's fine. I think the other way – the increased level of automation coming through the ADAS pipeline, is more interesting. There is demand, there is revenue generated there. Carmakers are making money and are learning how to implement those features. And a number of those features need map data as well, and that's where we growing. We have speed assist, lane-level guidance, level three, level four on a motorway. That's where our products can shine, and that market is growing and will continue to grow.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Then I've got a question from Miki Sugimoto. I think this is probably for Eric and Johan to address.

"Please explain the key work you had to do to make TomTom's mapmaking to be fungible, using the open data, and how long it took you to get there."

Eric Bowman – TomTom – Chief Technology Officer

Yeah, I think some of that was covered a little bit during the presentations and the previous Q&A around the base map and the work required to essentially start to align around a common base map. We started to move forward on this about three years ago. And we ramped up gradually. We had a lot of R&D to do, to understand what was going to be required to really move all of our data successfully onto a different base map, and identify what was missing from that base map. Could we just use what was there? Or did we need to find ways to improve it? Now, at this point, I think we have around 300 or 400 software engineers working on this. And as indicated, we're bringing it to market. But it's been, you know – we've tried to reduce risk as we go, and ramp up as we reach success points. And now we're extremely confident that this is going to work.

Harry Blaiklock – UBS – Research Analyst

Harry Blaiklock, UBS. Two questions, one on free cash flow, and the increase you're seeing there to 2025. How are you expecting that kind of transition from where we are now?

Taco Titulaer – TomTom – Chief Financial Officer

Yeah, the only year that was missing on the chart was 2024. So, I could say linear, but yeah. We had that discussion, of course, in preparing for today. The key element is the timing of the ramp-up of Enterprise revenue, and how fast we can sign up these new contracts, and when that revenue will come in. So, I think, to answer it in 2024, we will make profits and I think it will be a single-digit – probably a low single-digit percentage. And the real increase will come the year after.

Harry Blaiklock – UBS – Research Analyst

Okay, great, thank you. And then the next question is just around any cost advantages to the new platform, whether there's any kind of quantification you can give to that?

Taco Titulaer – TomTom – Chief Financial Officer

Yes, there are. And, definitely. But I don't want you to leave with the expression that the whole mapmaking will become cheaper. I think the ratio between the huge step up in quality that we've reached, for the amount of money that we're spending is changing. But like I said, like I explained in one of the slides – for example, the processing and source collection, etcetera – for those levels we can see significant reductions. But on the other hand, all those great people from other companies that come in, etcetera, also come at a cost. So, it's a bit of a balance.

Harry Blaiklock – UBS – Research Analyst

All right, thank you.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Okay, I've got a few more online questions. It's from Ruben Devos from Kepler.

“With software becoming increasingly dominant in Automotive, what's your thinking on the future threat of potential cyber security breaches? And how high is that on TomTom's agenda?”

Eric Bowman – TomTom – Chief Technology Officer

Yeah, well, it's really quite high. We started building out a much bigger security team a couple of years ago. And the first, I think, significant challenge that we tackled was becoming ISO 27001 and 27018 certified. I've seen that happen a couple times, but we did it much, much faster than I've ever seen it done. It is obviously a really critical area for us. And so, we are investing and we brought in much expertise, and it's a constant agenda item for us. So, I think we're doing quite well there.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Thank you. More questions from the audience?

Maarten Verbeek – the IDEA! – Research Analyst

Maarten Verbeek, the IDEA!. Firstly, looking at your capital allocation. And to understand you correctly? You say that you first want to do something about returning cash to shareholders when you have a stable free cash flow, does that imply that it won't be before 2025? So, as of 2026?

Taco Titulaer – TomTom – Chief Financial Officer

Well, I think there are a couple of things. So, two things are important. Independence. So, no debt and a strong cash position. Now, we've reached that. The second is, knowing that you're in an operation where you create free cash flow, and also have the forecast that that will continue. That could be in 2024, but not in 2023. And if we reach our target as we explained, it will be in 2025.

Maarten Verbeek – the IDEA! – Research Analyst

Okay, then getting back to this customer on the West side of the US, who also makes watches, who scaled down significantly its contract. I'm a bit surprised, because when I look at your new strategy of the open map, that they will do it themselves. And I also heard TomTom saying: "It's a waste of money for companies, they could spend it better on other items." So, why are they in-sourcing that activity?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, it's a good point. But, you know, I think at the highest level, strategically, the decision was made: "We need to own this stuff for ourselves. And we don't want to be dependent on anyone." I think that kind of fits in their culture. And we can only respect them for that. We have been great partners, we continue to be partners. But, you know, at a lower level, at a smaller scale.

Maarten Verbeek – the IDEA! – Research Analyst

Is it possible that they will become a future competitor of yours, in this area?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Never say never, but that's not typically – that's not what you would expect. That's not what you would expect. You know, they have their own ecosystem and what not, and to bring that outside of their ecosystem is not their primary goal. I think the primary goal of that customer to provide excellent integration and end-user experience for everybody who's in their ecosystem, and that's all it is. You can expect – so, at some level we are competing, of course. If you look at smartphones, and CarPlay, and Android Auto. Those are, in a way, indirectly competing products and services.

Maarten Verbeek – the IDEA! – Research Analyst

I'd like to get back to the Intelligent Speed Assist. You speak very highly about what you can do yourself. But to my surprise, I did notice that HERE has captured most of that market. So, why have OEMs opted for HERE instead of you?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, I think there is a short-term plan and a longer-term plan. I think that in the short term, OEMs have scrambled to get, from their existing suppliers, the data. I think with our increasing market share, we will see significant growth, also in ISA, and significant market share wins in the ISA product going forward.

Maarten Verbeek – the IDEA! – Research Analyst

Then furthermore, you also have provided earlier guidance on your revenue for location technology for 2023. That suggests, when using the midpoint, that you expect to grow your location technology revenue some 8% in 2023. To get to the 2025 number, there needs to be a significant acceleration in 2024 and 2025. What's driving that?

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

Yeah, I think that's what this day is about. New maps, new platform, better competitive position, and some unique capabilities we bring to location technology market, that were not available until today. All that in combination will help us to grow in Automotive, and that's backed up by a strong order book, as you've seen. And on top of that, we see growth opportunities in the Enterprise world – so, everything else apart from Automotive.

Taco Titulaer – TomTom – Chief Financial Officer

Maybe if I can add to that. One of the factors, of course, is that Enterprise first goes down before it goes up, right? So, that explains it.

Maarten Verbeek – the IDEA! – Research Analyst

And you disclosed an orderbook of €2.4 billion, can you also break that down in time?

Taco Titulaer – TomTom – Chief Financial Officer

In time, you mean when that revenue would come in? Now, you typically think that that will, from a reported point of view – first year 20%, second year 20%, and then the percentage gets smaller. So, it takes take a long time, but I would say that after five years, you're reaching something like 80%.

Note: Mr. Titulaer is referring here to the phasing of revenues of a typical Automotive contract. His comments do not refer to the Automotive backlog as a whole, and do, for example, not take into account the time between award and start of production. Annually, an update on the phasing of revenues from the Automotive backlog is provided with TomTom's full-year results. As an example, see p.5 of the Q4 2021 Results Presentation.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Okay, I've got two questions from Mohit Sharma, and I'm combining them because they are on the market segments we are targeting in Europe versus America.

"What is our preferable segment for TomTom? Would it be Automotive, or new segments like ride-hailing, food delivery, opened up through the new maps? So, is there a prioritization in maps, in market segmentation, both for Europe and America, between Automotive and Enterprise?"

Johan Land – TomTom – Chief Product Officer

So, there's a set of segments. And some of those segments, we have a stronger position in, and it makes sense for us to start there. Those are typically the segments that rely on some form of navigation attributes. So, that's why we're saying that on the Enterprise side, we are starting with the logistics, ride-hailing, food delivery segments, where navigation, turn-by-turn routing are key services that are needed. So, those are the top priorities.

But in addition to that, this new Maps Platform enables us to enter new segments. In particular, people that have that have been on this journey of adopting these types of technologies earlier on, that opens up just now, so that's another segment that would go for early on. On the automotive side, of course, a very important segment there is EV – extremely important, we have a strong position there. ADAS, is another. A strong position there from this new Maps Platform, in terms of the data that we bring in and the features that creates. So, those are probably the targets that come to mind, though I might be forgetting something.

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

Great, are there some questions still from the audience? Marc?

Marc Hesselink – ING – Research Analyst

My question is actually on the pricing, and the upside risk or downside risk to pricing per car, or revenue per car. Because I think the other ones are maybe a bit more predictable. But there, we have the element of when the take rates go up, you also provide a bit of a discount. If it's a large number for the client, you increase the functionalities. In your slides, you said it's going to be stable. But just maybe talk about all those points, and the upside and downside risk.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

So, unit price per car is relatively stable actually. And we don't see it – certainly not as a result of our announcements today – we expect our competitive position to strengthen. So, we can probably – our expectation is that we can hold the line there at a minimum. But what is true is that we need to work harder, we need to provide more content and data, for that unit price. So, it's not just a static map, it's update services, it's ADAS, it's traffic information, EV charging, and so on, and so forth. So, on the on the other hand, we talk about the software-defined car, that's not something we kind of make up. It is a real desire from carmakers to take control of the dashboard and build intimacy and brand through software interaction. And in that construct, the map is probably the most important application that there is – that has the capability to build that intimacy with the customer. So, we see the importance of collaboration. And building those applications with carmakers is really important. And those collaborations are getting stronger.

And we see a desire also from our customers to structure those partnerships in different way. We've long been complaining about procurement processes, with RFQs, endless list of features – setting that outcompetitively, and the lowest bidder could win that. That is not a good way of sourcing software, it is not a good way of collaborating. And it's not a good way, most importantly, to deliver the solutions that customers are actually going to use. In a way you're throwing away good money after bad money, if that's your way of operating. And that has been recognized now. And we see that, time and again, with our partners, the old way of doing things, that's no longer sufficient. We need to figure out a new way of working, we need different KPIs. We want to steer on the actual users, we want to steer on the accuracy of your route guidance, no longer on these long spreadsheets with features that nobody understands.

And subsequently, what carmakers are saying is that – we need to continue to build, we need to continue improvement, we need to do A-B testing. We need to adopt more of a way of working, what we've seen for a long time in the mobile phone industry, where you use customer feedback and customer interaction to learn about your application, customer behavior. Learn those lessons and apply them into the dashboard, and your software-defined vehicle. And that is not a moment too soon, that that's happening. But it's also a necessary condition for us to succeed in Automotive. Because if you don't improve the way of working, then everything is for nothing, because customers will not use it. That realization has come through, and that means that our partnerships and the way we structure those partnerships are changing in nature. They go more towards longer term partnerships, a slightly different way of billing, and so on and so forth. We haven't seen the full impact of that. But I think that over the next three to five years, the way we interact with our customers in the automotive industry will look more like what we're doing in the Enterprise world than it is today.

Johan Land – TomTom – Chief Product Officer

And maybe two things just add on pricing there. As we're creating much better products, that should translate, at some stage, into some kind of pricing leverage. The second one would be that the problems that we're solving are more foundational in Automotive. As in, if knowing how and where to charge your EV car is crucial to the overall user experience, that should come at higher price point. As well as ADAS features, they're more integral to the overall experience. Again, as the data and what we provide is crucial, that should translate into pricing.

Marc Hesselink – ING – Research Analyst

And could it eventually mean moving away from the license model into a more, like a recurring software kind of model?

Johan Land – TomTom – Chief Product Officer

I was almost mentioning that. There could also be a change in the revenue model towards more recurring subscriptions from end-customers.

Maarten Verbeek – the IDEA! – Research Analyst

Maarten Verbeek, the IDEA!. Two additional ones. Firstly, at your 2019 CMD you mentioned that you expected connected services to be around six by 2030. Since you are now adding much more collaborations, do you expect those kinds of services, connected services, to come earlier in time?

Claudia Janssen – TomTom – Group Controller & Head of Investor Relations

So, it's the number of services like a EV, parking, traffic, etcetera. So, six refers to the number of features we supply to the OEM.

Harold Goddijn – TomTom – Co-Founder & Chief Executive Officer

I'm not sure whether that's a very useful number, that six. How you slice and dice it, I don't know. But what we do see, of course, is that online is now getting pervasive. EV routing is dependent on connectivity as well, traffic information is as well, search – there's a lot more functionality that is provided as a service. And that trend is not going away. But you can think about parking, weather information, slippery roads, hazards, speed cameras. It's a whole bunch of things that we're now continuously improving.

Maarten Verbeek – the IDEA! – Research Analyst

And then lastly, a financial one. Since you expect to grow and you expect a slight increase in your gross margin. What kind of conversion ratio do you expect on an IFRS basis?

Taco Titulaer – TomTom – Chief Financial Officer

Maarten, what do you mean with conversion ratio?

Maarten Verbeek – the IDEA! – Research Analyst

How much of your increase in gross profit you can convert into EBITDA.

Taco Titulaer – TomTom – Chief Financial Officer

So, on the revenue, you mean? Or not?

Maarten Verbeek – the IDEA! – Research Analyst

So, your increase in gross margin, how much you can retain and add to your EBITDA.

Taco Titulaer – TomTom – Chief Financial Officer

Oh, okay. Now, I think that the effect that we've seen – the split between operational growth and IFRS growth will get smaller over time, first of all. Second of all, most of the revenue has low cost of sales. So, I think that up to 80% will drop to the bottom line, of that growth.

Closing remarks

Corinne Vigreux – TomTom – Co-Founder & Chief Marketing Officer

So, it's a very important day for us. I hope you realize that from everything you've heard today. It's a bit like a third chapter. So I'm Corinne. I'm one of the TomTom founders. I used to be Chief Commercial Officer, and then I ran the Consumer P&L for about 10 years, before assuming the role of CMO to basically reposition the company from a B2C brand to a B2B2C. Today, we're coming out of stealth – I like the, sort of, startup jargon. So we're coming out of stealth, and telling you about a project we've actually been working on for a few years, with a stellar team of product managers, engineers, and designers. And we set out to make the smartest, most useful and most accurate map on the planet. As you've heard today, both from the customers in the video, and from Mike and Antoine, and pretty much everybody, the need for a fresh, accurate, global map is increasing. And it is crucial, in many use cases, like building the future of mobility. Our 30 years of mapmaking experience, and the insights we have gathered on that journey, have put us in a great position to capitalize on the opportunities that the announcement we are making today will unleash. Growth.

Geolocation is so important and ubiquitous. About 20% of all search on the internet got a geolocation component. Millions of use cases rely on good, accurate data, now and tomorrow. In a world where mobility is changing at breakneck pace – think electrification, connected cars, think pinpointing exact addresses and pickup points, and think about the millions of developers requiring maps services, SDKs, APIs, on which they build their products – the TomTom Maps Platform will enable the dreamers and the creators of today and tomorrow to innovate. Think about the example of Lightyear, I like, it's a Dutch, first solar car.

So, our audience is changing. We used to speak to millions of consumers – we've sold more than 100 million sat-navs, 'de kastjes.' And we're now going to talk to other audiences. We're going to talk specifically to three audiences, to carmakers – existing ones, as well as EV-first newcomers. Our digital cockpit is a good example of enabling and accelerating speed and time-to-market for EV-first or new vehicles. We'll also target new verticals, and more specifically logistics, ride-hailing, and on demand, for which the economics of getting better, fresher products has a massive impact on the bottom line. And I know that – some of you who know me, know why. It's very important to get that right. We will be also talking to the developer community that spans all sectors, ensuring they have the right tools, well-documented, easy-to-use APIs and SDKs, on which to build their products. And because we know that developers actually bring those products within the organization.

It's a bit of a bittersweet moment for me, having been at the birth of TomTom. But also, the hands, the logo. Have you noticed something? We've peaced-out the hands, that's it. Harold and I were there when we created the logo, the name. It was brave at the time, and it served us right. When we came up with TomTom, people thought: "What are you doing, teddy bears?" But no, we were embarking on making one of the most successful tech companies on the planet. And, so it's been good to today to unveil this. Hope you like it? Yes? Good, good, thank you. So, you know, TomTom made it, as a name, into the VanDale dictionaries and we became a household name. So, we thought long and hard and decided we'll keep the name. There's a lot of equity in the TomTom name. But we needed to visually also tell the world that we were embarking on a new chapter. And that's why we came up with this logo. Still very friendly, fresh, and modern. So I'm pleased you like it.

So today, I feel, in a way, the same anticipation as when we launch our first satnav. I know today is an incredibly important milestone for us. In the same way, TomTom changed the way people navigate forever, many years ago. I'm sure you will remember today as the day we've changed mapmaking forever, making the smartest, most accurate map on the planet, truly helping people find their way in the world, and enabling the industry, our partners and customers, to innovate and build the mobility of the future. So, thank you for being here today. You can look at the demonstrations. So, don't take our word for it, go have a look at our map engine. There's also some grub, I think, some food. So, after sitting – you've been very patient – I think it's time for a drink and 'bitterballen.' And thank you, again. I hope I see you again in a few years time, and you say: "Yeah, they were right. They did start something phenomenal, and it was the beginning of something new." So thank you, and see you soon.