Annual Report 2022

tomtom

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TomTom Annual Report 2022

European single electronic reporting format and PDF version
This document is the PDF version of the Annual Report 2022 of TomTom N.V. and has been prepared for ease of use. The European single electronic reporting format (ESEF) package is available on the company's website and includes a human readable XHTML version of the Annual Report 2022. In case of discrepancies between this PDF version and the ESEF package, the latter prevails.

The Annual Report 2022 was made publicly available pursuant to section 5:25c of the Dutch Financial Supervision Act (*Wet op het financieel toezicht*) on 3 February 2023 and was filed with Netherlands Authority for the Financial Markets (AFM) in ESEF at the same time.

WE ARE TOMTOM

"Our new Maps Platform will foster an ecosystem and drive innovation"

HAROLD GODDIJN

Chief Executive Officer, TomTom N.V.

HIGHLIGHT FACTS/FIGURES

€436 million

Location Technology revenue
(2021: €394 million)

€2.4 billion

Automotive backlog[1]
(2021: €1.9 billion)

€304 million

Net cash position[1]
(2021: €356 million)

[1] Non-GAAP measure, refer to page 137

FOR MORE INFORMATION

tomtom.com/company/

Dear Stakeholders,

We are looking back on a pivotal year in TomTom's existence. Thanks to the talent, dedication, and creativity of all our employees, we were able to introduce our new Maps Platform and our new maps to the world. They are the result of three years of investments and will have a profound impact on our business and the industry we are operating in.

Our maps are the vital component that enable people and things to move safely, easily, and efficiently. A surge in location signals by users, applications, sensors, and the open-source community offers new opportunities to push the boundaries of mapmaking. Our new Maps Platform combines TomTom's own data with these new 'super' sources.

With this, we have achieved an important milestone. We will be able to offer customers and all end-users a map that is as near a real-time reflection of reality as possible. In addition, customers and partners can map their own data against a consistent base map, creating map layers that cater to their specific needs.

Our platform will be a driving force for accelerated innovation and helps foster an ecosystem where the world comes together to create the smartest map on the planet. Our co-founding of the Overture Maps Foundation reinforces this strategy. We are collaborating with leading technology companies to develop a global map standard and base map, which will be leveraged by the TomTom Maps Platform.

Our brand-new software development kits (SDKs) and application programming interfaces (APIs), meanwhile, make it easier to consume the new maps and power the most demanding applications.

As a result of all these developments, we will become more competitive in our existing markets. More importantly, they open up markets and use cases in which we are currently not present. Combined, this will drive profitable growth.

We have already secured a strong foundation for growth. 2022 was our biggest year yet in terms of Automotive bookings, increasing our backlog to a record €2.4 billion. This is a clear sign the industry sees TomTom as a trusted partner that supports them in their journey toward electrification and the software-defined vehicle.

We signed a landmark partnership with Hyundai Motor Group, which will be using our maps and traffic across all brands and all vehicles in Europe. And we extended our longstanding partnership with Stellantis, powering their next-generation digital cockpit platform with our full suite of services. We aspire to grow our market share further.

Outside of Automotive, our platform opens new markets, as we will serve more use cases across a larger number of countries. Our Enterprise business had a resilient year, making inroads in the fast-growing Asia-Pacific region, amongst others. We are scaling up our sales capabilities to capture the opportunities our new technology enables in targeted markets like food delivery, fleet and logistics, and ride-hailing.

As we reshaped our technology and products, we also had to adapt as a company. Not everybody was able to join us on our journey, as the further automation of our platform and the need for a different skill mix meant we had to realign our Maps unit. This was a difficult yet necessary step to assure our competitiveness going forward.

I am very proud of what we have achieved in 2022. Despite the profound changes we went through as a company, our bi-annual engagement survey shows our employees are more excited than ever about TomTom's future. We have attracted talent from leading tech companies to join us on our journey to build the smartest map on the planet, complement our deep knowledge of mapmaking and bring in new skills and new ways of working that are transforming us into a leading tech company.

We have always done business responsibly because it is the right thing to do – for our employees, our customers, our suppliers, our investors, and the world we all share. In order to ensure that our growth ambitions march in lockstep with our ESG commitments, we have identified key themes that will guide our decisions in years to come.

Thanks to the ongoing support and confidence of all our stakeholders, we can show that TomTom makes a difference. The world needs an independent mapmaker that caters to a wide range of customers with innovative products and solutions. TomTom will provide the platform and technology to bring it all together.

HAROLD GODDIJN
Chief Executive Officer, TomTom N.V.

The location technology specialist

TomTom has been helping people and businesses find their way in the world for over 30 years.

Billions of data points. Millions of sources. Hundreds of communities. We are the mapmaker bringing it all together to build the world's smartest map. We provide location data and technology to drivers, carmakers, businesses, and developers. Our application-ready maps, routing, real-time traffic, APIs, and SDKs enable the dreamers and doers of today to shape the future of mobility.

We are headquartered in Amsterdam with offices in 22 countries. Together, we are a 3,800-strong team of talented, diverse individuals who make the TomTom technologies that hundreds of millions of customers and users rely on.

Founded in 1991, we have grown from a Dutch startup into the world's leading location technology specialist.

What started with software development for business-to-business mobile applications and personal digital assistants for consumers, led to the creation of a new product, the portable navigation device (PND). The first TomTom satnav became one of the fastest-selling consumer technology devices in history, making our name synonymous with navigation.

Thirty years and billions of drives later, we are the leading independent location technology specialist. Our decades of insights and experience go into everything we do – maps, digital cockpit solutions, navigation software, routing and ETAs, APIs, and traffic data. Our products help people and businesses find their way in the world.

Our employees and offices

Offices in **22 countries**

3,800 employees
6% Americas
67% EMEA
27% Asia Pacific

Our business

Location technology with two sales channels
- **Automotive**
- **Enterprise**

Consumer

Our data and technologies

Location-related data

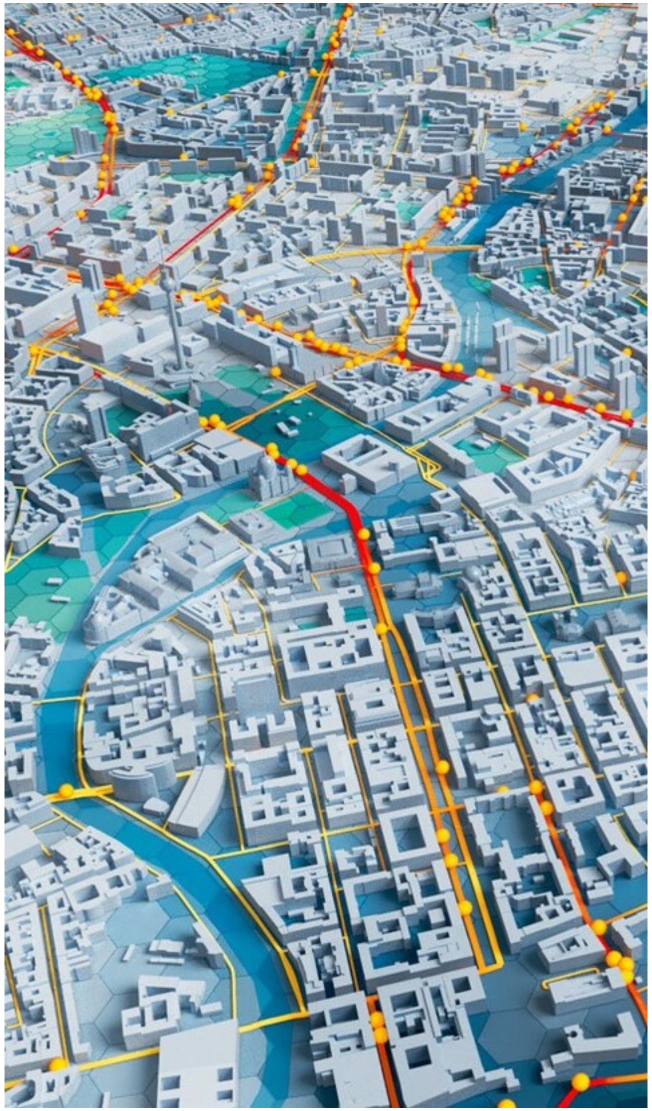
TomTom Maps Platform

Our products

Application layer
- **Software**
- **APIs**

Geographic data
- **Value-add data**
- **Base map**

Creating the smartest map on the planet



As the leader in location technology, we believe that businesses, governments and consumers need a map that is a true reflection of the world around us. We create the most useful, up-to-date, and smartest map to power a wide variety of use cases across all industries.

Whether it is a carmaker implementing advanced driver assistance systems to increase comfort and road safety, or a food-delivery company looking to offer its customers a top-notch experience, different use cases all have their own specific set of requirements for maps and location services. Those requirements drive an insatiable demand for new things to map, for improved accuracy and freshness.

The new TomTom Maps Platform is core to our strategy, as it caters to all those needs. It is the result of three years of research and development, and is able to produce maps that are accurate, versatile, and near real-time. To this end, it pools all relevant sources, from open source data to sensor-derived observations, and validates and integrates them in a highly automated way.

Collaboration with and for the benefit of location technology users is central to our beliefs. We co-founded the Overture Maps Foundation to collaborate on establishing a global map standard, together with leading technology companies. In addition, our platform is open to all users, big and small, and will allow our partners and customers to build their own value-add layers on the platform itself. This enables them to provide real-time feedback and improve the map however they need, building content layers and thereby supporting their specific use cases.

The new Maps Platform will improve TomTom's competitive position and enable us to enter new markets and unlock endless new use cases. For example, with a smarter map we will be able to add more value to companies in markets like food delivery, fleet and logistics, travel, and more.

We will be able to build on our success in the Automotive market, scaling products and applications to a much broader variety of customers in the Enterprise market. In this way, we will be able to capture the opportunities in the rapidly expanding market for location technology, helping firms to become more competitive.

We aspire to foster growth and achieve scale and operating leverage that will take us on a path to profit and cash generation. The TomTom Maps Platform supports our ambition to generate Location Technology revenue of €600 million in 2025, implying a compound annual growth rate in excess of 10% over three years.

We strive to deliver superior, long-term value to our customers and shareholders, while acting responsibly towards the planet and society, in partnership with our stakeholders. To this end, we have deployed a comprehensive set of commitments across all environmental, social, and governance (ESG) dimensions that guide the execution of our strategy.

Finding and leading the way

Our purpose is to help others find their way in the world. As companies and people increasingly depend on location technology, we enable them to understand and interact with the world around them. Our technologies help people find new places to explore, people to meet, and things to discover.

We achieve this by providing the most useful and most trusted map on the planet. We are creating the largest collaborative, validated pool of location data, with easy access for all. The freshest, most accurate location dataset ever that benefits all sorts of users. In a world with only a handful of companies able to create a global map, TomTom, therefore, offers everybody a credible choice.

We focus on activities that create the most relevant and beneficial impact for our stakeholders, including our people, customers, suppliers, society, and shareholders. We allocate capital to the businesses we think offer the best prospects for growth and returns. We use stakeholder feedback to develop our strategy and our products.

Collaboration with and for the benefit of our customers is at the core of what we do. Our TomTom Maps Platform integrates numerous data sources in a highly automated way. We enable a loop of continuous improvement together with our partners and customers to create the freshest and richest maps. This ecosystem is open to any company, big or small, as well as community members, to contribute to and benefit from.

As such we provide a common standard for maps that solves key industry challenges and enables companies to build on each other's innovations.

Our people and culture are fundamental to our success. We differentiate ourselves as an employer of choice by fostering a unique, innovative, and entrepreneurial culture and bringing our values to life. We run an ethical business for and with our partners, together accelerating the future of mobility. We contribute to society through our work and the technologies we create, and aim to do this in a sustainable manner. By embracing our capacity to do more, we give back to the communities around us.

Resource input

People
3,800 employees in 38 countries
87 nationalities (2021: 86)
27% women (2021: 28%)

Intellectual
61% of employees in tech roles
€358 million R&D cash spend
>600 million connected devices contributing probe data

Natural
Certified domestic renewable energy purchased by 26% of offices
Green building certifications for 36% of offices
Quality Management Systems & Environmental Policy

Financial
€356 million net cash position[1] at the beginning of the year

[1] Non-GAAP measure, refer to page 137
[2] Free cash flow excludes restructuring charges related to the Maps realignment announced in June 2022

Value output

People
Employee engagement score of 75 (2021: 78)
15% voluntary turnover (2021: 13%)
19% of job offers accepted by internal candidates (2021: 21%)
Women represented 26% of new hires (2021: 24%)

Intellectual
Launch of the new TomTom Maps Platform
Introduction of several new SDKs and APIs (e.g. Navigation SDK, Matrix Routing API, and Waypoint Optimization API)

Natural
Decrease in CO_2 emissions year on year
New BREEAM (Amsterdam and Eindhoven) and LEED (Pune, Berlin, and Lodz) building certifications
Global recycling program, with half of office waste in the Netherlands recycled

Financial
Location Technology revenue of €436 million (2021: €394 million)
Automotive backlog[1] of €2.4 billion (2021: €1.9 billion)
Equity FCF yield[1, 2] of -3.4% (2021: 1.9%)
Free cash flow[1, 2] of -€29 million (2021: €24 million)

Company impact

Social
Fostering a culture of inclusion, through several initiatives
Refugee Talent Hub, Student Hackathon, Global Week of Learning, and more
Publicly available Traffic Index
Products and technologies that allow people to move smoothly and safely and contribute to greater road safety (e.g. Virtual Horizon, jam tail warnings)

Governance
Strong focus on data privacy and security

Environmental
Products and technologies that enable others to limit their emissions (e.g. eco-routing, fresh traffic information, accurate EV routing and charging solutions)
Increased awareness on emissions and pledge to become carbon neutral by 2030

Capturing value from the trends shaping and transforming industries

MARKET OPPORTUNITIES

Technology built around geospatial data has opened the door for new business models that transform existing industries and create entirely new ones.

Continuously updated location data, detailed maps, and smart routing algorithms are changing the way we make sense of the world around us. They power a broad variety of use cases in a large number of industries. Fleet management, logistics, and delivery companies can use location data to drive operational improvements, while industries like travel and social media can employ maps to enhance their offerings. Location technology is driving a competitive edge.

Beyond these use cases, the automotive industry is undergoing a strategic shift toward electrification, automation, and the software-defined vehicle. Carmakers are rethinking the way cars operate, realizing that future differentiation will need to come from the software running inside of them. These trends also impact the infrastructure around us. Electrification is challenging our thinking about refueling and the availability of charging stations along our routes, while increased automation demonstrates the interdependencies of the digital and the physical world.

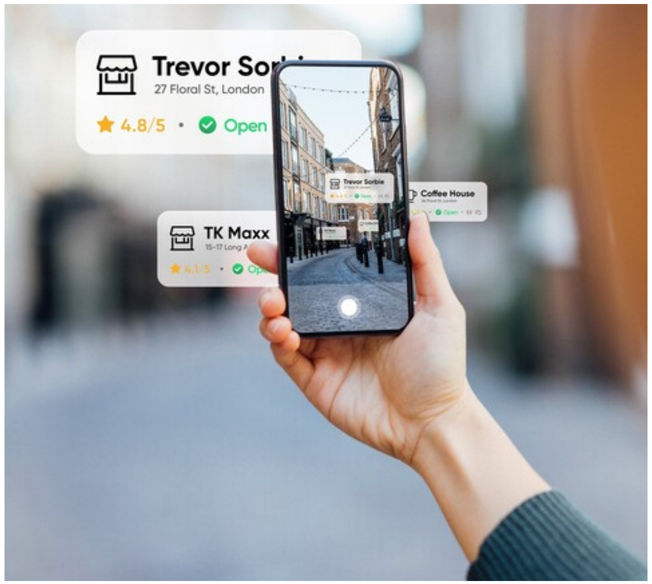
Already, it is estimated that around 20% of online searches include a location component. As people and businesses become even more reliant on location technology and new use cases are adopted more widely, demands and expectations for location technology will only rise further. We provide our customers with the technology to meet the needs of today, and tomorrow.

OUR CUSTOMERS

As the leading independent location technology software company, TomTom plays a central role in these trends through our maps, our software and our services. We define two customer segments, Location Technology (LT) and Consumer.

LOCATION TECHNOLOGY

To better serve our customers and capture market opportunities we distinguish two sales channels within our Location Technology business, Enterprise and Automotive. Both segments are poised to exhibit growth over the coming years.



Enterprise

Our Enterprise business helps make firms more competitive through location technology, driving adoption and strong market growth. It enables businesses to streamline their operations, leading to operational excellence. Location technology can also be utilized to enrich firms' products and services.

TomTom's Enterprise customers include some of the world's largest and most innovative technology companies. Many of our Enterprise customers, ranging from fleet management systems to on-demand services, use our products such as maps and traffic in their back-end systems. At the same time, we serve a vast array of small businesses and developers.

The TomTom Maps Platform enables us to add more value to a significantly larger part of the market. We aspire to double our market share within existing growth segments, such as logistics and on-demand markets, as we will be able to significantly increase the value we bring to our partners.

Our investments in the application layer, meanwhile, have led to improved APIs and a new Navigation SDK. These enable us to tap into a broader target audience of developers, whom we will support in building their businesses. Our relationship with the developer community will help us gain valuable insights in their needs and enable us to capture potential and generate leads.

We will enter new markets that we didn't address so far. Our map will play a key role in improving the overall customer experience in segments like travel and social media.

Automotive

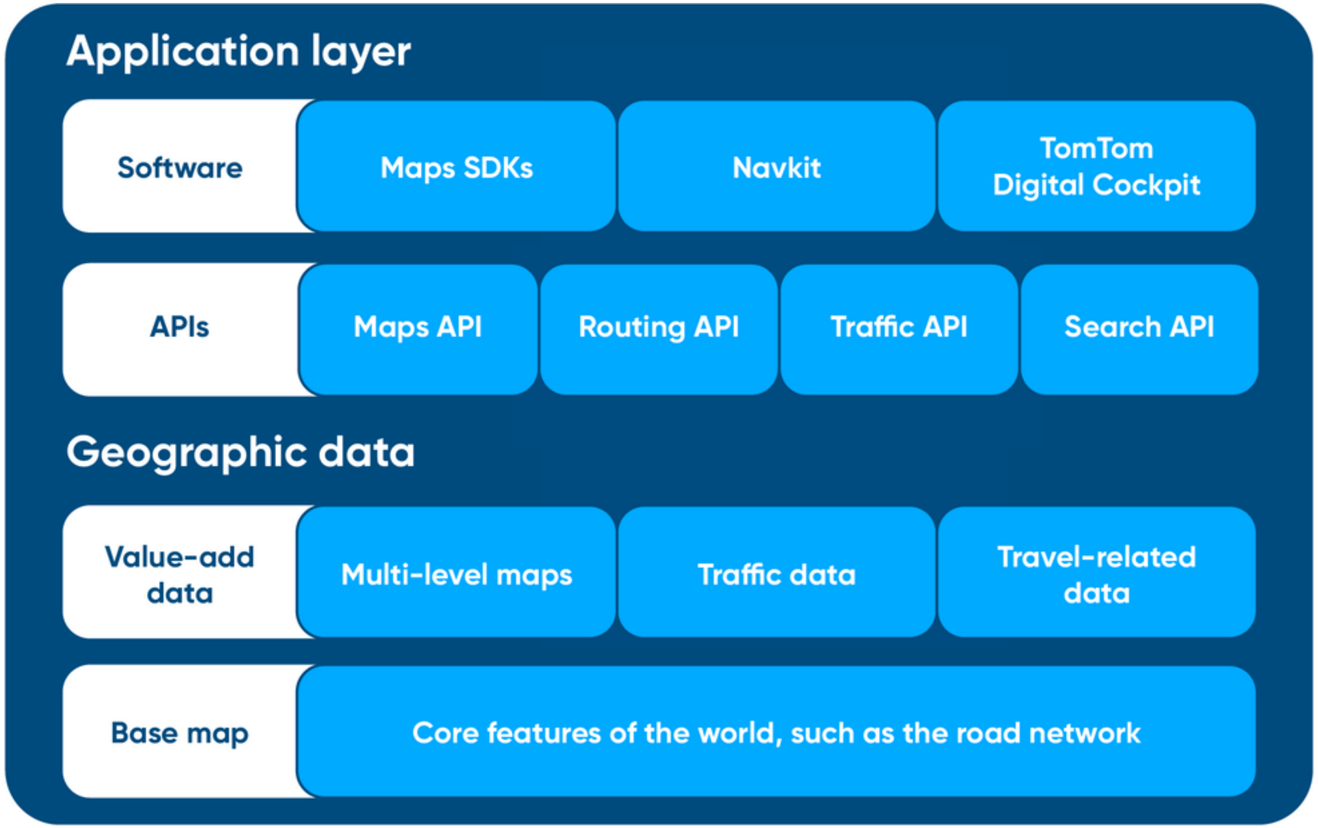
Our Automotive customers are carmakers and their Tier-1 suppliers. Drivers increasingly expect a seamless experience from the software in their car, in terms of software updates, access to their digital life, and the availability of applications. OEMs are reshaping themselves to provide this. In addition, the shift toward cars being increasingly reliant on software allows OEMs to monetize connectivity and generate recurring revenue from the dashboard, with features like on-demand, in-vehicle commerce and subscription-based feature packages. Location technology will be a key enabler for both improved customer experience and revenue generation.

TomTom serves Automotive customers with our general maps-based products and a range of Automotive-specific products. OEMs integrate our products into their location-based vehicle application systems, such as digital cockpit systems, navigation systems, location-based advanced driver-assistance systems, and automated driving. Thanks to the modular structure and use of standards, Automotive customers can integrate any combination of our products for navigation. We currently serve around 50 Automotive brands and aspire to expand our market share.

CONSUMER

Our Consumer business offers drivers navigation, including directions, guidance, and information about the road ahead. We offer consumer products in the form of portable navigation devices (PNDs) and mobile applications, which help people make smarter decisions while driving, getting them to where they want to be with greater ease, efficiency and safety.

Leading the way with smarter technology



OUR PRODUCTS

The foundation of all our products and services is the TomTom Maps Platform. The highly automated ingestion of sources such as sensor-derived observations and probe data, as well as community-sourced open data, enables the TomTom Maps Platform to produce accurate and fresh maps loaded with value-added content.

The Maps Platform standardizes and normalizes open-source content to create a global standard. Data is quarantined before it is integrated into the map, in order to validate and quality-check all signals.

Geographic data

The base map contains the core features of the world – the road network, borders, buildings, points of interest. What makes these map features 'base' layers, is that most other map features are built on top of them, including TomTom's value-added data.

The value-added data are built using TomTom's sources. They range from information on speed restrictions, lanes, and turn restrictions on particular road segments, to addresses, building entrances, and phone numbers, or opening hours related to a specific point of interest (POI). These data are typically used by larger companies who integrate the data into their solutions. This creates a deep dependency on critical data to power their applications.

The TomTom Maps Platform standardizes the base map so its value-added data can be combined with open data and customer data in a production map.

An important part of our geographic data relates to road networks, from highways to residential streets. Our road network data is used for search, vehicle navigation, location-dependent ADAS functions, and automated driving.

Our Maps and Traffic layers consist of online services that provide our geographic data in a variety of formats. These include our SD (standard definition) map, our HD (high definition) road network map, and our real-time traffic data, which provides information on traffic flows and a variety of traffic incidents including jams, closures, and roadworks.

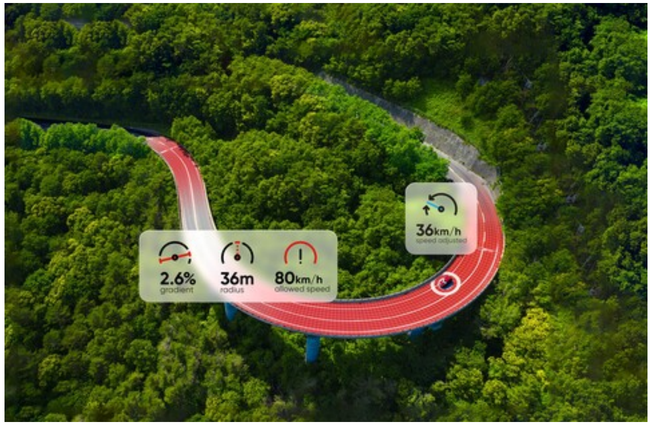
We also provide travel-related data. This includes static and dynamic data related to off-street parking, on-street parking, fuel stations, electric vehicle (EV) charging points and speed cameras. Examples of dynamic travel information data are availability of parking spaces, fuel prices, and EV charging station occupancy.

SD Map

Our SD Map is a map that is designed to meet application functions to display a map, search for a location, and navigate (routing, directions, and turn-by-turn guidance). Our SD Map describes the road network (including street names and addresses) and much more, including natural features (such as coastlines, rivers, and land use), building footprints, country borders, and categories of points of interest (e.g., restaurants, shops, airports, fuel stations, and businesses), and voice data (used for speech navigation guidance).

Traffic

Our traffic data includes our real-time traffic and speed profiles for predicting expected travel times. Our onboard and online routing software uses our traffic data for finding the fastest route and providing more accurate expected travel times, which navigation application users experience as a more accurate ETA (estimated time of arrival).



ADAS and HD Maps

Our ADAS Map provides road network data required by location-dependent ADAS functions. The ADAS road network data is a subset of the data in our SD Map and includes road geometry and ADAS attributes, such as road curvature and gradient. For example, an engine management system can save on fuel by using the gradient information to avoid changing gears near the summit of a hill.

Our HD Map also provides road network data, including 3D lane geometry and road sign geometry, with greater location precision than our SD and ADAS Map. This supports automated driving applications such as automatic lane keeping and localization, whereby map data and sensor data are being matched to accurately determine the position of the vehicle.

APIs and software

TomTom also offers application developers easy access to a wide array of services through our suite of APIs. These tools play a pivotal role in making the connection between our content and the applications that they power, whether through routing, search and traffic. The services provide a low-friction access point into our product portfolio, offering an affordable and fast way for our customers to access our map data. We describe our suite of APIs in more detail on our developer portal.

We launched our new Navigation SDK for Mobile, enabling companies and developers to build applications on top of our market-leading navigation software. The modular SDK combines all of TomTom's location APIs with turn-by-turn navigation to create an effective toolkit for developers. Supporting both Android and iOS, the SDK provides a host of features. It includes detailed information on complex intersections, lane-level guidance, support for multiple scheduled delivery points, and access to the latest and highly accurate ETAs with our real-time traffic.

OUR TECHNOLOGY

Our technology supports the following key activities:

- Creation of geographic data, including our maps and real-time traffic;
- Providing of customer-facing online services, such as map updates and our APIs, including the development and deployment of the application systems that provide our online services; and
- Development and release of device software (for vehicle-integrated systems and mobile and web applications).

Creation of geographic data

Our geographic data, which includes our map data and our real-time traffic data, is created continuously by processing a wide variety of data sources. Processing data sources occurs in multiple steps with the ultimate effect of updating the geographic data in our location products, from map releases to online APIs, which our customers integrate into their applications. The processing steps are mostly carried out by our proprietary mapmaking and traffic creation software.

The main inputs for our geographic data creation system are floating car data (FCD), sensor-derived observations (SDO), data from our own mobile mapping (MoMa) vehicles, and more traditional public and commercial sources, including government maps, satellite images, business listings, and address point listings. We often integrate overlapping sources to provide a more accurate representation of reality than could be provided by each individual source. In the geospatial context, this is called conflation.

To integrate these data, we invest in proprietary software systems with the goal of automating as much of our mapmaking as possible, to enable greater throughput and higher and more repeatable quality.

We continuously update our maps to reflect a constantly changing reality. Next to keeping our maps up to date, we define and create new types of geographic data, such as lane-level geometry to support automated driving and lane-level navigation.

Real-time traffic data, for instance, is inherently volatile. Hence, our traffic creation application system creates a new traffic map every 30 seconds.

Providing of customer-facing online services

Our location products are either implemented as an online service (e.g., our Map Display API) or depend on one or more online services (e.g., our Maps SDKs). The following list shares typical examples of how customers depend on our online services:

- Customers integrate our map releases and real-time traffic feed into their applications;
- Whether they use our SDK or not, customers integrate our Maps APIs into their mobile, web or vehicle-integrated applications, or server-side application systems; and
- Automotive customers integrate a wide variety of online services, including our map update services, real-time traffic feed, TPEG, and our online APIs into their vehicle-based application systems, including navigation, ADAS, and automated driving.

Our online services include services to ingest the FCD that our customers provide, which we process to create real-time traffic and to keep our maps up to date.

Development and release of device software

We develop device-side software for web developers, mobile app developers, and vehicle-integrated systems, which we deliver as SDKs.

Our device software can be divided into:

- Maps SDKs for web and mobile app developers as a more productive way to use our Maps APIs and to implement device-side functions customers would otherwise have to develop themselves;
- Vehicle libraries for vehicle integrated systems, typically using both onboard and online maps; and
- Our TomTom Digital Cockpit framework of software libraries, which significantly reduces the time and development effort in developing a vehicle digital cockpit, and where our navigation software is pre-integrated.

Our Maps SDK, vehicle libraries, and TomTom Digital Cockpit framework include software that provides device-side application use cases (from an onboard or an online map) and software that implements the user interface, benefiting from the user experience design capability we have developed as a consumer electronics company.

Making impact across TomTom

Our ambition is to create a better world and help people and businesses find their way in it, through our products and services, business practices, and community involvement.

We are committed to maximizing our positive impact, reporting on how we are doing so, and inspiring and activating others to do the same. Our values and vision come through in our people and communities, products and services, and business operations.

As a global business, we embrace our responsibility to not only minimize our negative impact, but also maximize the positive one.

Our data helps local governments to manage traffic, businesses to plan smarter working hours, and drivers to avoid congested roads, enabling a reduction in emissions.

TomTom's impact on improving road safety and reducing congestion and emissions started with the launch of the world's first route-planning software for mobile devices. We have since come a long way thanks to constant innovation.

We recognize that our impact extends beyond our technologies and also strive to inspire the next generation of tech talent and innovators. Further, we organize initiatives to give back to the communities in which we are present.

We recognize the challenges associated with climate change, and are committed to ensuring we operate a sustainable business. Based on our Environmental Policy, we are continually taking steps to reduce our environmental impact through responsible business practices.

For instance, we are operating more sustainably through our Go Green office programs, sustainable practices around materials and energy, and waste recycling efforts, while also driving a responsible supply chain outside of our direct domain of influence.

Over the past years, we have continuously evolved the ways we assess and boost our positive impact as an organization.

We have made good progress on our ESG efforts in 2022, and set a global ESG strategy. In the upcoming sections, we describe more about our efforts and how we are making an impact across TomTom. In the Risk Management and Control section, we touch upon the impact of social and environmental matters to our overall risk profile.

Our company impact activities are currently centered around the four United Nations Sustainable Development Goals (SDG) that best align with TomTom's vision. These are SDG 4 Quality education, SDG 5 Gender equality, SDG 11 Sustainable cities and communities, and SDG 17 Partnerships for the goals. The latter was newly added this year to reflect the increased role of collaboration in our business strategy.

EVOLVING OUR ESG STRATEGY

Supported by both the Management Board and the Supervisory Board, we continue to strengthen our commitment to conducting business responsibly. In 2022, we conducted a materiality assessment, which allowed us to identify the ESG themes that our stakeholders deem material to TomTom. This enabled us to set clear and measurable KPIs that align with our business and reflect our values, and formulate a well-informed ESG strategy.

The improved understanding of our stakeholders' interests, introduction of relevant KPIs, and progress on adequate ESG reporting practices, will further enable us to move toward a fully integrated ESG strategy. We will continue improving and expanding our ESG reporting initiatives in 2023.

Our stakeholders

A continuous dialogue with our stakeholders is an important part of our day-to-day business, helping us to understand how we can best add value that aligns with their interests. In this context, our stakeholders can be broken down into five groups: customers, employees, investors, suppliers, and society as a whole.

To further develop our understanding of stakeholders' perspectives on ESG, we engaged with a selected sample of stakeholders in a structural manner throughout the year, on top of our regular engagement as displayed on this page. Amongst others, this additional engagement on ESG included virtual and in-person interviews, various surveys, and in-depth discussions.

Stakeholder	Engagement	Themes
Customers	• Continuous communication through account and product management, as well as engineering and customer support • Collecting market intelligence to better understand customer needs	• Secure products • Data privacy • Products and technologies that reduce emissions and increase road safety • Ease of use of products
Employees	• Constant dialogue between employees and management about contribution and development • Biannual Glint engagement survey to gather employee feedback • Regular consultations with the Works Council	• Employee engagement • Diversity and inclusion • Opportunities for training and development • Flexibility at work • Creation of an innovative environment
Investors	• Several recurring events, such as the Annual General Meeting and Capital Markets Day • Regular meetings with investors, analysts, proxy organizations (e.g., VEB, Eumedion, ISS) and regular attendance at investor conferences	• Our commitment to create value • Timely and accurate updates on how we track against our goals
Suppliers	• Contracting discussions handled by our centralized procurement and legal organizations, which engage with suppliers on their CSR policies.	• Long-term commitments • Acceptable payment terms • Compliance with the core principles of data protection and cyber security
Society as a whole	• Monitoring of public perception of TomTom, on social media for example • Discussions with local governments • Participation in discussions and initiatives where our technologies have a role to play	• Responsible remuneration • No tax avoidance • Ethical business practices • Products and technologies that reduce emissions and increase road safety

Identifying material themes

The KPIs and targets we have set touch on all axes of ESG, and are derived from the input of our most important stakeholders.

Together with representatives from each of the stakeholder groups, we identified the ESG themes that are most material to TomTom. These might include themes that have a notable impact on TomTom, or themes on which TomTom is perceived to have a substantial impact.

The materiality assessment contained interviews with external and internal stakeholders, supported by surveys collected from additional stakeholders. This led to the identification of a range of important themes. After careful analysis, the themes that were most frequently cited were selected, and internal representatives of stakeholder groups were asked to rank them. Subsequently, the outcome was presented to and discussed with the Management Board and Supervisory Board.

The outcome of the materiality assessment covered a broad number of themes, ranging from TomTom's ability to attract and retain talent and foster a diverse and inclusive workplace, to enabling others to reduce their environmental footprints. Other themes, such as security and data privacy, also ranked highly amongst our stakeholders.

For further details on the performed materiality assessment and selection of themes, please see the Non-financial reporting information section.

Setting clear targets

Progress on the identified themes is key to achieving our shared value ambition and is directly linked to our objectives. As such, the Management Board was able to set relevant KPIs and accompanying targets.

At the same time, we have bolstered our reporting efforts, enabling us to achieve limited assurance on the KPIs stated in the above table. Each theme's KPI and target is discussed in the remainder of this chapter.

	Theme	KPI	Target
MT1 p.15	Employer of choice	Employee Engagement Score	Top-in-class employer with 4th quartile benchmark score by 2025
MT2 p.18	Diversity and inclusion	Gender diversity ratio	30% female representation at company level and 20% for senior management by 2025
MT3 p.22	Technologies that reduce emissions and improve road safety	CO_2 reduction enabled by our Traffic services	To be set in 2023
MT4 p.25	CO_2 emissions	Scope 1 and 2 CO_2e emissions and Scope 3 CO_2e cloud emissions	Carbon neutral on Scope 1 and 2 by 2030
MT5 p.30	Security and data privacy	Percentage of engineers certifiably trained on security	75% of engineers trained on security by 2025

Reporting on our impact

With our ESG strategy aligned with our stakeholders' perspectives and interests, we are also further improving our reporting.

The identified themes provide a useful framework to discuss our impact. First, our people and their positive impact on society are discussed, after which our efforts in operating a responsible business are highlighted.

For more details on our ESG reporting practices in relation to the outlined themes and the related KPIs, reference is made to Non-financial reporting information section.

Assurance

To formalize our ESG strategy, we requested our auditors to provide independent assurance on certain KPIs and the disclosures relating to the materiality assessment. As a result, EY provided limited assurance on the performance for 2022 of the KPIs related to MT1 (Employer of choice), MT2 (Diversity and inclusion), MT4 (CO_2 emissions) and MT5 (Security and data privacy). For theme MT3 (Technologies that reduce emissions and improve road safety) we aim to obtain limited assurance in 2023 as the related KPI is more complex in nature.

Having assurance from an independent external assurance provider reinforces our commitment to making a positive impact.

TomTom helps people find their place in the world through their impact

MT1 EMPLOYER OF CHOICE

KPI
Employee Engagement Score

TARGET
Top-in-class employer with a 4th quartile benchmark score by 2025

PERFORMANCE
Employee Engagement Score of 75 in 2022, as compared to the Glint Technology industry benchmark score of 82

LINK TO STRATEGY
TomTom's success depends on its talented workforce. To attract and retain the right talent, advancing TomTom'ers' well-being is essential to achieving the company's strategy.

In 2022, we took significant steps to make it easy for TomTom'ers to make an impact, through their role at TomTom and in the broader community.

Impact is defined by the technology that TomTom'ers create, saving people precious time while travelling, enabling the next level of automated driving, and more. TomTom'ers' impact is also found in their growth, development, and ownership of their career. We enable all of the above for a single reason – so that TomTom is known as the place where impact seekers can achieve more.

We continue to evolve our way of working to foster an agile, inclusive, and innovative work environment, with a competitive rewards program and meaningful learning and development opportunities. We are focused on being the employer of choice – attracting, retaining, and developing the right talent. Our employee engagement score provides a useful indicator of our achievements, and we have set out to increase our score to be top-in-class.

Like last year, we ran two surveys, one in April and one in November. For the former, we received a response rate of 83% and an engagement score of 77. For the latter, we received a response rate of 86% and an engagement score of 73. This resulted in an achieved average score of 75, which is 7 points lower than the Glint Technology industry benchmark in 2022. As a result, we have not achieved our target of scoring in the 4th quartile of the benchmark. The year-on-year decrease in engagement score (2021: 78) can largely be explained by the realignment of our Maps unit, which impacted approximately 500 employees worldwide, equivalent to around 10% of our total global headcount.

Attracting impact seekers

The labor market is more competitive than ever. We aim to deliver what current and future TomTom'ers want and need – workplace flexibility, an impactful and stimulating role, and the opportunity to contribute to innovative technologies. This is inherent to the TomTom experience.

As a result, the pull to TomTom is strong. We remain able to hire the right talent and have even seen several TomTom'ers "boomerang," returning to TomTom. Additionally, we attracted senior leaders from leading tech companies worldwide. This success stems from our approach – emphasizing TomTom's impact-focused and flexible culture.

Internal changes at TomTom

With our constant emphasis on impact, we also aim to continuously improve our mapmaking processes. By integrating a wider array of digital sources and increasing our automation levels this year, we can now create a smarter and more impactful map in a more efficient way. These innovations have, however, altered the skill mix required to update and maintain the map. As a result, we realigned our Maps organization in 2022, to ensure our competitiveness going forward.

We supported affected TomTom'ers in several ways. We communicated with our various sites regularly and transparently, with several live Q&As for TomTom'ers to share their questions and concerns with TomTom's leadership team. We prioritized redeployment, with a dedicated Talent Acquisition team looking for vacancies that matched the skills and experiences of affected TomTom'ers. If this was not possible, we also provided outplacement support to optimize TomTom'ers' chances of finding the right opportunity. And for everyone involved, we organized resilience workshops to help TomTom'ers identify different types of stress and practical ways of coping with it.

Choosing to lead

Leadership refers to how TomTom's act, contribute, view themselves, and are perceived by others. It means looking at situations positively, taking initiative, and driving solutions – closing the gap between aspiration and reality.

We believe leadership is for everyone. Being a leader is a choice. We introduced the Leadership Foundation in 2021 to show TomTom'ers how to be a leader at any level. During 2022, we rolled out the Leadership Foundation and further reinforced the set of behaviors, principles, and values that, if embodied, will lead to outstanding leadership in 2023.

TomTom'ers take ownership of their growth and success. They create opportunities for more significant impact, increase their knowledge, raise their performance levels, and use their expertise to influence and inspire others.

Performance that inspires

The next step was operationalizing the Leadership Foundation, embedding it within our performance management and hiring processes.

With our new approach to performance management, we wanted to ensure that all TomTom'ers feel that their performance and development are recognized and prioritized across the company. To do this, we introduced three performance pillars. Based on these pillars, TomTom'ers co-create and shape their performance expectations with their manager throughout the year.

PERFORMANCE PILLARS

Impact

The consequences of what TomTom'ers do.

Leadership

How TomTom'ers work, by applying the behaviors and principles from the Leadership Foundation.

Capabilities and development

How TomTom'ers improve, building those capabilities that ensure they have the right skills for their role.

Through these performance pillars, TomTom'ers can emphasize what matters most and leverage their full potential. Our role is to make it easier for our TomTom'ers to do this. We hosted multiple trainings and interactive sessions, and provided a variety of guides and tools.

Similarly, we want to integrate the Leadership Foundation in the hiring process, helping candidates understand how they can be successful at TomTom. We will continue our efforts on this front in the coming year.

These initiatives are essential to our strategy. Not only do we want to attract the best talent, we also want to give them the tools to build on their successes and become even stronger.

Guiding our engineers to excel

As our TomTom'ers grow stronger, we want them to recognize and seize the opportunities available to them. To facilitate this, we updated our engineering career ladders to clarify the impact TomTom'ers can have in their role. We have also extended our career tracks so TomTom'ers can continue to exceed their expectations.

The Leadership Foundation enables TomTom'ers to achieve the high levels of quality that are required to create TomTom's technologies.

TomTom'ers grow with the company, developing their skills to meet new challenges and spreading their knowledge among their colleagues. This cultivates a culture of excellence.

Opportunities to innovate

Impact seekers thrive on the chance to bring ideas to life – TomTom'ers are no different. As such, TomTom Lab, our global innovation program, continues to be as popular as ever. The program enables people to innovate outside their daily activities and offers an opportunity to make an impact. The program's goal is to create new solutions or improve pre-existing TomTom products, helping TomTom achieve its ambitions. To maximize the impact of TomTom'ers' ideas, we introduced "idea themes" – each tied to a business priority.

IDEA THEMES

Ecosystem growth

Enabling developers and customers to use our map features, APIs, and SDKs, to build on top of our map or customize it for their specific use cases.

Data-driven decision-making

Finding new ways of gaining insight into how we can improve our products.

Vertical focus

Increasing value for our Enterprise customers while accelerating the transition to electric vehicles.

Customer use cases

Discovering a unique solution to a common problem faced by our existing or potential new customers.

With these idea themes, we can ensure that TomTom's' ideas immediately affect what we want to achieve as a company. They inspire ideation and development, improving our products to solve complex problems for millions of people worldwide.

Rewards and benefits to empower

Our rewards approach will continue to focus on offering compensation packages that attract and retain talent, and drive performance and engagement. We provide competitive rewards that motivate high performance levels. In addition, we offer the work flexibility TomTom'ers need to perform on those levels consistently. We support TomTom'ers to reach and sustain those high performance levels by investing in training and development plans.

We have also fully integrated our flexible working program, Working @ TomTom (W@TT). This gives TomTom'ers the freedom to work from home or the office, depending on their activities and personal preference. Whether undertaking a focused exercise or joining colleagues for a social catch-up, TomTom'ers choose the location.

Now, we are extending our commitment to flexible working by redesigning our offices. We want to transform them into new, modern locations with workspaces suited to all activities. We have already redesigned our office in Pune and intend to continue this process in Amsterdam, developing a single center of operations that is fully equipped for all TomTom'ers' needs.

Finally, our new Extended Location Flexibility benefit gives TomTom'ers the possibility to work abroad for a period of time. Whether our people return to their families or work in an entirely new environment, they are given the freedom to decide from where they will have the most impact.

Listening and responding to our TomTom'ers

We are continuously searching for ways to improve the TomTom experience. This is why engagement surveys are essential – TomTom'ers can share their honest feedback on the strengths of life at TomTom, and areas of improvement.

Through TomTom'ers' feedback, we know what our workforce needs to continue succeeding and we act on it accordingly, as we have done on previous surveys' results. For example, the aforementioned Extended Location Flexibility is an initiative introduced following TomTom'ers' previous survey responses.

Supporting well-being

We care about TomTom'ers' well-being. All TomTom'ers have access to professional counseling to support them through difficult times. Additionally, we regularly organize and host sessions to raise awareness around mental health.

We are proud and thankful for our TomTom'ers' resilience and strength, looking out for one another in times of need. As a company, we will continue to nurture a working environment where TomTom'ers feel safe and comfortable being open with us.

TomTom is a great place to work

Our workforce is empowered to make impact in their lives and through their work. We create leaders at every level and support TomTom'ers through benefits that reward their high performance and support their learning and growth. We ensure our people can make our shared ambitions a reality.

A culture of inclusion that powers a more impactful TomTom

MT2 **DIVERSITY AND INCLUSION**

KPI
Gender diversity ratio

TARGET
30% female representation at company level and 20% for senior management (director and above) by 2025

PERFORMANCE
Female representation in 2022 of 27% at company level; and 17% for senior management.

LINK TO STRATEGY
TomTom's diverse and inclusive culture enables enhanced value creation for all stakeholders and supports TomTom'ers to deliver on key strategic goals.

Our diversity makes us stronger, more innovative and creative, and brings us closer to our customers. We are committed to ensuring people from all backgrounds feel welcome at TomTom and are able to find their impact.

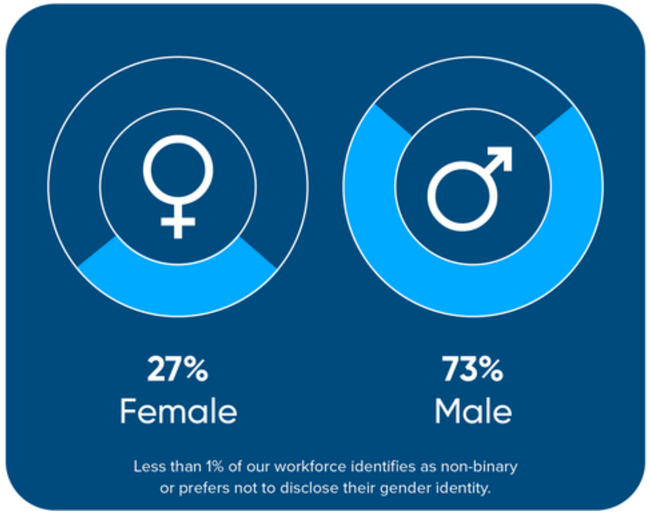
At TomTom, we are 3,800 passionate problem solvers from 80+ nationalities, spread across the globe. We know it is important to embed diversity and inclusion in our company through inclusive, equitable processes. Our diverse and inclusive culture makes us a more impactful organization. For instance, by grouping together TomTom'ers from 15 different locations and 26 product units, the TomTom Lab initiative delivered 67 innovative ideas to address location technology challenges.

Our commitment, goals, and progress

In accordance with our Diversity and Inclusion Policy, we continued driving progress towards better representation of all backgrounds in the company in 2022.

To source diverse talent and stimulate inclusion, we continued our partnership with myGwork, the global recruitment and networking hub for LGBTQIA+ professionals. In addition, we extended our collaboration with the Refugee Talent Hub in the Netherlands to support the integration and development of newcomers. The collaboration focuses on sourcing refugee talent and providing relevant trainings.

To improve gender diversity, we are guided by our goal to reach 30% female representation at company level by 2025, and 20% female representation at senior management level. Our targets for diversity were adjusted from last year, to account for industry averages. We believe the target remains ambitious, as the industry average female representation for engineers is 23%.



In 2022, women accounted for 26% of new hires (2021: 24%). Looking specifically at tech and leadership, women accounted for 17% of tech hires (2021: 17%) and 14% of hires in director level and above positions in 2022 (2021: 27%).

Female representation at company level decreased marginally to 27% (2021: 28%). For senior management, female representation is 17%, which translates into 27 women and 131 men. Due to our increased focus on hiring for tech roles over the years, for which gender diversity is lower than non-tech roles, we experience challenges in moving the needle on female representation.

We believe that transparency and accountability in our actions are key in order to learn, improve and ultimately reach our level of ambition, and will continue our efforts on diversity in 2023.

The diversity policy of our Management Board is included in the Management Board section.

Fostering a culture of inclusion

We aim to foster a diverse, open, and inclusive company culture and workplace, where all TomTom'ers feel connected and valued. We stand up for each other and for equal opportunities by celebrating our accomplishments, calling out problematic behavior, and being mindful of our cultural differences.

The role of allyship is crucial here. By being allies, we help everyone feel accepted and valued. Our relationships become stronger as a result, particularly with marginalized groups that need our support.

We introduced a global Allyship Workshop to start familiarizing TomTom'ers with the principles of allyship and enable them to correctly apply it in various social scenarios. This workshop will continue to be rolled out to more TomTom'ers in 2023 and be integrated in our onboarding processes.

In addition, we drive inclusion through moments of awareness or celebration, such as our International Women's Day, Pride Month and Mental Health Day initiatives. In 2023, we will continue our efforts to make an impact through important cultural moments.

International Women's Day Week of Learning

Inspired by the global #BreakTheBias campaign, our annual global Week of Learning returned for the third year in a row and put female-identifying experts in the spotlight. The week provided an opportunity to learn, become a stronger ally, and get inspired to be 'Bigger than Bias'.

We are proud that our global and local initiatives were recognized by the Great Place to Work® Institute (India), as we were named one of India's Best Workplaces for Women 2022.

From mentorships and sponsorships to executive leadership programs, we will continue to support women in accelerating their careers in tech while creating a workplace where they feel welcomed and empowered.

Pride Month

At TomTom, we encourage everyone to "Be you, be proud". For us, Pride is a global celebration of the LGBTQIA+ community, recognizing the value and impact that LGBTQIA+ members have in our world.

We want TomTom'ers to feel comfortable being their true and authentic selves, and learn from each other's experiences. During Pride Month, we celebrated our amazing TomTom LGBTQIA+ community and its allies.

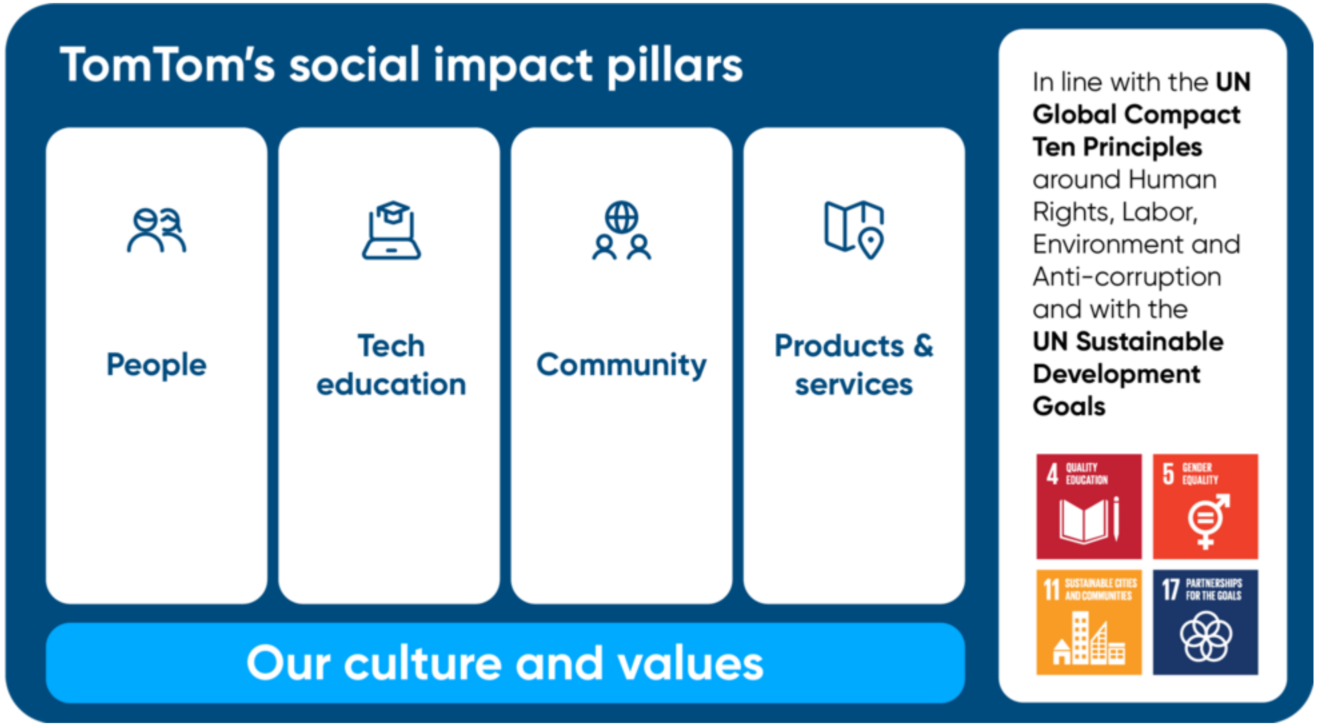
Mental Health Day

Supporting our people's well-being is a key priority for us. That means raising awareness around neurodiversity and mental health stigmas, and providing useful resources through our Mental Health Day educational content.

Our people make social impact where it matters most

We exist to help people and businesses find their way in a better world. A better world in our view is a world of equal opportunities, high-quality education, and sustainable communities and cities.

In 2022, we created an impact framework to align our efforts with our idea of a better world. The framework spans four pillars. Its foundation is our culture and values. The framework is intended to drive support toward the four SDGs that best align with TomTom's vision.



OUR PEOPLE AND CULTURE

Our people and culture are key to powering a more impactful TomTom. We aim to attract impact seekers, support them to take charge of their potential, and enable them to innovate. In addition, we feel strongly about our inclusive and diverse culture, in which everyone can be their authentic selves.

In 2022, TomTom'ers actively contributed their skills, time, and resources to support universal access to quality tech education and their local communities more broadly.

TECH EDUCATION FOR ALL

We are passionate about bringing more talent into tech. As such, we believe tech education should be accessible to everyone. We engaged in several initiatives to support this, including organizing the TomTom NEXT Global Student Hackathon.

TomTom NEXT Global Student Hackathon

The second edition of the student hackathon provided 129 students from six locations and eight tech institutions with the opportunity to try their skills at three real-life cases.

This edition introduced multiple difficulty levels to provide a meaningful learning experience to a broader group of students. On top of prizes of more than €20,000, students received mentoring and feedback from TomTom experts.

One of our technology education partners for the hackathon, Codam Coding College, offers tuition-free software engineering education to a diverse group of students. As part of the partnership, TomTom'ers provided mentoring and masterclasses to these students in 2022, thereby helping to bridge the gap between their personal goals, skills, and the job market.

STRONGER LOCAL COMMUNITIES

We aim to make a positive impact in all the communities we are present in. For instance, TomTom'ers in the Netherlands have volunteered more than 1,000 hours as part of the paid volunteering time-off benefit introduced in 2019. TomTom'ers made impact by mentoring students, giving talks on road safety in local schools, and participating in World Cleanup Day, amongst others.

Furthermore, in India, we partnered up with Katalyst, a local NGO that supports the economic empowerment of young women and prepares them for leadership roles, driving stronger female representation in the tech industry. TomTom India has committed to sponsor multiple internships over the coming years.

Lastly, to provide aid to those impacted by the war in Ukraine, TomTom'ers donated around €50,000 to the Red Cross. This total was matched by TomTom. Additionally, all TomTom'ers, received paid volunteering days to help those in need.

Our community in Poland, KoguTT (Kulturalno Oświatowa GrUpa TomTomowa), worked tirelessly to ensure the safety of affected people, and supported by handing out groceries and medicines, providing transportation and verbal translation help, and much more.

Supporting refugee integration and inclusion

In 2022, we continued our partnership with the Refugee Talent Hub in the Netherlands. The Refugee Talent Hub connects employers with newcomers, with the goal of providing paid employment as well as training opportunities.

To boost our efforts in supporting refugees, TomTom joined the TENT Partnership for Refugees in April 2022. As part of this partnership, we intend to hire refugees in technology roles and provide them with relevant training. Through these efforts, we not only give back to a community of people in great need, but also tap into a diverse pool of talent.

In addition, our teams in Poland and Germany took time to understand local refugee needs and explore partnerships to provide training and hiring opportunities. In 2023, we aim to formally partner up with organizations in Poland and Germany to start shaping up our impact initiatives locally.

TAX PRINCIPLES

TomTom's approach to tax is published on our website. TomTom has committed to the Dutch Tax Governance Code for multinational companies, as coordinated and published by VNO-NCW in 2022. TomTom complies with the requirements of this Code, with the exception of reporting on a legal entity basis. Instead, TomTom voluntarily reports its tax payments on a regional basis.

TomTom views taxation as an important contribution to a sustainable society, as they are a source of funding for public services in the countries where we operate.

Corporate income taxes are paid based on taxable profits and borne by TomTom as a taxpayer. TomTom's taxable profits are calculated in accordance with TomTom's OECD-based transfer pricing model and local tax rules. Corporate income taxes include withholding taxes deducted by customers on TomTom's invoices and withholding taxes on distribution of dividends.

In addition to income taxes, which are due by TomTom as a taxpayer, our local business activities also create a responsibility to collect and pay other types of taxes like payroll taxes and indirect taxes. By collecting and paying these taxes to local authorities, TomTom provides a meaningful contribution to the countries in which it operates.

Payroll taxes are paid by TomTom to authorities in the form of wage taxes and social security contributions, for example. These payments partly consist of employer's contributions, but the majority is withheld from wages paid to employees and are as such remitted on behalf of TomTom's employees.

Indirect taxes such as value added tax (VAT) are consumption taxes which are levied on the added value and have an output and input element. Below overview shows TomTom's net VAT amounts paid, being the balance between output VAT and input VAT.

In addition to the taxes mentioned above, TomTom also contributes to society by means of other types of taxes such as customs duties, packaging taxes, environmental taxes, and batteries taxes. These other taxes are not included in below overview, as they are not material for TomTom.

The following table provides an overview of TomTom's net payments of taxes. As is reflected, taxation is an important part of our business and is paid in the regions in which we operate.

(€ in thousands)	2022	2021
Europe[1]	1,999	6,171
North America	1,244	475
Rest of world	1,840	923
Total corporate income taxes	**5,083**	**7,569**
Europe	99,762	88,352
North America	9,170	7,758
Rest of world	8,434	8,129
Total payroll taxes	**117,366**	**104,239**
Europe	15,748	16,767
North America	1,160	847
Rest of world	94	546
Total value added taxes (net)	**17,002**	**18,160**

[1] Amount includes withholding tax paid in jurisdictions outside Europe. The lower 2022 amount is mainly due to refunds.

Creating a better world through our products and technologies

MT3 TECHNOLOGIES THAT REDUCE EMISSIONS AND IMPROVE ROAD SAFETY

KPI

CO_2 reduction enabled by our Traffic Services

TARGET

To be set in 2023

PERFORMANCE

TomTom is working on assessing and reporting on the reduction in emissions its product and technologies enable and expects to provide further insights in 2023.

LINK TO STRATEGY

TomTom's products and technologies add value by enabling others to make smarter mobility decisions, thereby also increasing efficiencies.

Our products and technologies enable everyone, from individuals to governments and businesses, to make smarter mobility decisions. This enables us to make a positive impact with our products and services.

Beyond the social impact TomTom'ers make by contributing their skills, time, and resources to worthy causes, they also make an impact through their work – through the products and technologies they help create.

Our offerings are focused on helping others make better decisions, be that while driving to work or scheduling a multi-stop route for a delivery driver. In doing so, our offerings enable reductions in emissions and increases in road safety.

We are committed to maximizing the positive impact of our products and technologies, and encourage our people to innovate to create a better world. This makes our people's work more enticing, and our products and technologies more valuable for our customers.

INCREASING ROAD SAFETY

Our location technology is relied upon by millions of people day in, day out. They make use of our technologies to navigate to work, hail a ride to an appointment, or look up the location of a restaurant. By streamlining our services, we are creating a more comfortable experience for our users.

Especially in mobility-related use cases, we are able to make a meaningful social impact as well. For instance, by providing timely warnings on what is happening on the road ahead, we can improve road safety and decrease the number of road casualties. As an example, our jam tail warnings alert drivers that a traffic jam might be approaching. Even though the traffic jam may only start just around a bend, drivers using our technology will be able to already let off the gas, avoiding harsh braking, diminishing risks of rear-end collisions, and smoothening traffic waves.

REDUCING EMISSIONS

At TomTom, we see climate change as an important environmental risk and strive to limit emissions. As such, we offer products to enable others to move towards a world with less emissions, together with us. Accurate traffic data, dynamic routing, up-to-date information on charging stations, and much more, all help to reduce our collective environmental footprint.

Better routes, less emissions

Our offerings, and especially those that service mobility-related use cases, incorporate options for users to opt for a more ecological route. In addition, our traffic service enables millions of users to navigate around efficiency-diminishing traffic jams, leading to a material effect driven by lower emissions from mobility.

Supporting the move toward electrification

Interest in electric vehicles (EVs) is soaring, yet their adoption is held back by doubts around practical feasibility. Drivers experience range anxiety, as they are unsure of their vehicle's range and the charging availability along their route. Our products turn range anxiety into range accuracy, offering peace of mind to drivers and accelerating the transition towards a cleaner, more sustainable future.

An EV's range depends on much more than its current battery level. Driving speed, traffic, road type and elevation all impact how far a vehicle can go. TomTom EV Routing and Range takes such factors into account to plan efficient routes, provide precise range predictions and calculate reliable estimated times of arrival – making every drive enjoyable and effortless. That includes long-distance EV routing that shows drivers where and when to charge on long journeys, as well as how long the stop will take. We also help drivers choose the best time and place for charging, based on availability, charging speed and user preferences.

ESTIMATING OUR IMPACT

We are working on estimating the positive impact of our products and services on people's lives and the environment.

Our traffic services enable our users to avoid traffic jams and drive at a more fuel-efficient, constant speed. The gross effect of driving at a more optimal speed, is partially offset by having to drive an alternative, and potentially longer, route to avoid traffic congestion. Even so, our traffic services enable a net reduction in CO_2 emissions.

We are developing a methodology to determine the total CO_2 emission savings enabled by our traffic services. The preliminary estimates indicate that the overall CO_2 savings from our traffic services exceed our combined Scope 1 and Scope 2 emissions.

However, these calculations are complex and are based on a wide variety of assumptions. As such, we will not report in detail on the net CO_2 reduction enabled by our traffic product in 2022. Over the course of 2023, we will further strengthen our methodology and reporting.

In addition to environmental benefits, we estimate that TomTom's traffic services users who encounter a traffic jam will benefit from an improved driving experience. Users save up to 12 seconds per trip kilometer driven, while their average speed is improved by 4.5 kilometers per hour.

We are committed to conducting our business responsibly

At TomTom, we are committed to make the most impact for all stakeholders in a responsible manner. Our governance structure supports this commitment, through long-term value creation, ethical business practices, and a values-driven culture.

ETHICAL BUSINESS PRACTICES

TomTom is dedicated to conducting business in a transparent, ethical, and accountable manner. Our ethical business practices reflect our commitment to transparency and accountability, allowing us to build a relationship of trust with our stakeholders. As a data-driven company, these practices include an unwavering commitment to personal data privacy and a high degree of transparency.

Code of Conduct

Our Code of Conduct describes our business principles, guiding our employees in their work and their interactions with external stakeholders.

Our Code of Conduct training and awareness program and control mechanisms play a pivotal role in preventing bribery, corruption, and other misconduct at TomTom. The program is designed to instill an awareness of everyone's responsibility to uphold TomTom's business principles and to speak up in case of misconduct. The program includes gamified trainings, interactive refresher sessions, tailored communication, and custom-made campaigns on specific topics like human rights, safe working environments, anti-bribery and corruption, security, confidential information, and our Open Ears Procedure.

Through our Open Ears Procedure, our employees and stakeholders have the opportunity to anonymously speak up about any potential misconduct, without fear of retaliation. We received five reports through our Open Ears Procedure in 2022. The reports related to claims of breaches of internal procedures, harassment and bullying. All reports were duly investigated and all cases which we could substantiate were followed up on in accordance with our policies. Outside of the Open Ears Procedure, no cases of non-compliance with the company's principles and corporate policies were raised. Our business principles and corporate policies and procedures are an important and mandatory part of our global induction program for all employees, as well as for all existing employees. No anti- corruption or bribery-related KPIs were set for 2022.

Our labor principles outline our commitment to human rights and include, among others, freely chosen employment, respect for age requirements, non-discrimination, and freedom of association. The principles are reflected in the way we treat our employees and are included in our policies, employment agreements, and recruitment procedures. Our Slavery and Human Trafficking Statement under the UK Modern Slavery Act summarizes our actions to address the risk of modern slavery within our operations and those of our suppliers. No human rights-related KPIs were set for 2022.

Reducing our environmental footprint

Besides enabling others to reduce emissions, we also drive efficiencies in our own operations. This year, we set ourselves the goal to become carbon neutral by 2030. See the Environmental Footprint section for more information.

Data privacy and security

We are a data-driven company that separates itself from the competition through strict data privacy governance and practices. We remove identifiable elements from our data, using de-identified data solely to improve our products, and not to feed alternative business models. To enforce our beliefs, we provide a no-ad guarantee with our products. See the Privacy and Data Governance section for more details.

Continuous improvements

In our effort to continuously improve our practices, also as part of our Quality Management System, we will further develop policies, risk management processes, and KPIs in relation to matters such as our environmental impact, human rights and anti-corruption and -bribery.

Enabling a more sustainable future by maximizing our operational efficiency

MT4 **CO_2 EMISSIONS**

KPI

Scope 1 and 2 CO_2e emissions

Scope 3 CO_2e cloud emissions

TARGET

Carbon neutral on Scope 1 and 2 by 2030

PERFORMANCE

1,860 tCO_2e Scope 1 emissions;

1,305 tCO_2e Scope 2 emissions; and

187 tCO_2e Scope 3 cloud emissions in 2022

LINK TO STRATEGY

TomTom wants to ensure its growth ambitions are achieved in a sustainable manner, by minimizing its carbon emissions.

We recognize that climate change poses a significant risk to the environment, and we are dedicated to lowering emissions through both our products and enhanced operational sustainability.

We are committed to operational sustainability. We adhere to our Environmental Policy and are continually increasing our efforts to identify and minimize our impact on the environment through responsible business practices.

We report on our direct and indirect emissions in Scope 1 and 2, as per the Greenhouse Gas (GHG) Protocol. This year, we also started reporting on the emissions from our cloud computing usage, included in our Scope 3. A more detailed look at the GHG Protocol, the different Scopes, and our performance this year, is included below.

In 2022, our total emissions as a company decreased year on year. Our Scope 1 emissions decreased 8% year on year and our Scope 2 emissions decreased 29% year on year. The decrease can be partially explained by the ongoing initiatives we have in place to limit our environmental footprint. These initiatives include our Green Building Program, a Company Car Policy that prioritizes the use of electric vehicles, the careful management of resources and waste, and many others.

To raise awareness of our efforts to minimize our environmental footprint, ensure all TomTom'ers support us toward becoming a more sustainable company, and inspire them to make more sustainable decisions, we held the first global TomTom Earth Week in 2022.

Our growing community of #be-tomtom-green ambassadors provided useful insights, and we planted more than 4,000 trees with the help of OneTreePlanted, one for every TomTom'er.

Additionally, to encourage knowledge-sharing, we hosted an external panel discussion around “Partnerships for green change – how can we create more sustainable cities & communities?” We were joined by external experts and partners – the UN Global Compact Network Netherlands, CARIAD (a Volkswagen Group), PTV Group and the Municipality of Amsterdam to discuss our shared ambitions and how we can collaborate to create more sustainable cities.

To strengthen our commitment to becoming a more sustainable company, we have set ourselves the goal to become carbon neutral on Scope 1 and 2 by 2030. Scope 1 and 2 include the direct and indirect emissions we readily control. The remainder of this chapter includes a detailed look at how we are moving toward carbon neutrality, with our efforts to identify our emissions, and the initiatives we are taking to limit our footprint.

IDENTIFYING OUR EMISSIONS

Reducing the environmental impact of our operations starts with identifying its sources and adequately reporting on them. We have adopted the Greenhouse Gas (GHG) Protocol as the underlying framework driving our GHG emissions reporting. The GHG Protocol was drawn up by the World Resources Institute and the World Business Council for Sustainable Development, and identifies three scopes in which emissions can be categorized.

Scope 1 focuses on direct emissions mainly caused by company facilities and vehicles. For TomTom, Scope 1 emissions originate from heating of our office facilities and company car usage.

Scope 2 captures indirect emissions resulting from purchased electricity, district heating and cooling.

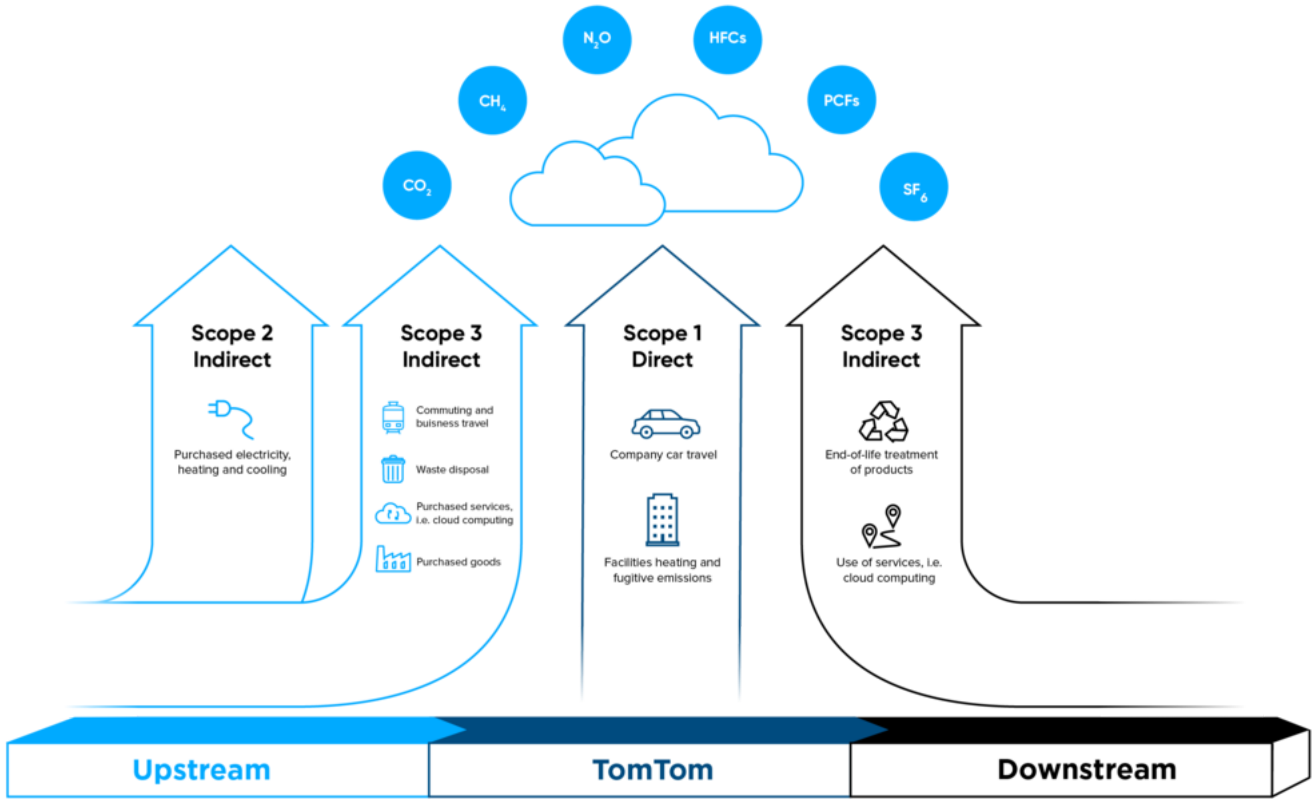
Lastly, Scope 3 focuses on all other indirect emissions that occur in a company's value chain. Importantly for TomTom, this scope includes emissions from purchased services including cloud computing, purchased goods, waste disposal and employee travel. Additionally, emissions from the end-of-life treatment of products and the use of our services are included here as well.

We report on Scope 1 and Scope 2 emissions from all entities over which we have operational control, as per the organizational boundary-setting methodology under the GHG Protocol. Consequently, our reporting includes emissions from owned as well as leased assets.

With regards to Scope 3 emissions, we have identified our cloud usage as an area of focus. Most of our processes and development activities involve use of cloud computing and storage services. As such, we are reporting on Scope 3 cloud emissions this year. In the future, we will reassess including Scope 3 emissions from other sources in our reporting as well.

In 2023, we will further assess how we can improve and expand our emissions reporting.

Aside from reporting on our emissions, this chapter also contains a detailed discussion of our initiatives to reduce our environmental footprint.



SCOPE 1 & 2 EMISSIONS PERFORMANCE

In discussing emissions performance, it should be noted that a greater amount of actual consumption data was available for 2022, where most 2021 figures, especially with regard to emissions from our facilities, were estimated using emission factors.

For 2022, we report a significant reduction of Scope 1 and 2 CO_2 emissions originating from our lease fleet, MoMa vehicles, and facilities.

Scope 1 emissions from our facilities exhibited a limited year-on-year decrease, which can mainly be explained by the reduced consumption of heating oil in our North American offices.

Scope 1 emissions related to our lease fleet increased in 2022. This increase resulted from an increase in vehicle travel as COVID-19-related restrictions were lifted.

Emissions associated with our MoMa vehicles decreased strongly in 2022, as compared to 2021. This decrease was caused by a reduction in the kilometers traveled by our MoMa vehicle fleet, driven by efficiencies gained in our mapmaking process.

In relation to Scope 2, we observe a strong decrease in market-based emissions related to our facilities. This decrease mainly resulted from the Asia-Pacific region, and specifically the emissions from our Pune, India office.

In 2022, an increased amount of actual consumption data was available for this office, leading to more accurate estimates. In addition, the decrease in Scope 2 emissions can be attributed to a reduction in office space in Eindhoven and Poland. Scope 2 location-based emission decreased for the same reasons.

SCOPE 3 EMISSIONS PERFORMANCE

As a first step toward capturing our Scope 3 emissions, we are reporting on the emissions from our cloud computing usage in 2022.

Dealing with big data to develop our products and services requires advanced, scalable, state-of-the-art technology, including secure, scalable data storage and hosting.

In recent years, we have moved the majority of our day-to-day activities to external cloud storage providers, from on-premise cloud storage. This has helped us manage our activities and their impact more efficiently, as our cloud providers are, on average, three to five times more energy efficient as compared to our in-house IT infrastructure.

For Scope 3, our reported emissions include the Scope 1 and 2 emissions of our cloud providers. Our reported Scope 3 emissions do not include the Scope 3 emissions of our cloud providers. Though we recognize that the Scope 3 emissions of our cloud providers might represent a significant part of their total emissions, we chose to exclude them due to a lack of available data for some suppliers and to avoid double-counting within Scope 3.

The year-on-year decrease in cloud emissions results from a focus on energy efficiency and continuous innovation by our cloud providers in order to reduce energy usage and increase operational excellence. The decrease is partly offset by increased cloud usage, driven by the growth of our Location Technology business and the transition to providing more cloud-based solutions for our customers.

In the upcoming years, we will strengthen our reporting on our cloud emissions by working together with our suppliers and engineering teams, with the ultimate objective of optimizing energy efficiency and limiting our emissions.

(tonnes CO_2-equivalent)	2022	2021	Method[3]
Facilities	419	449	Combination
EMEA	*326*	*340*	
NAM	*79*	*94*	
APAC	*14*	*15*	
Lease fleet	652	575	Asset-specific
EMEA	*652*	*575*	
MoMa vehicles[1]	789	1,006	Asset-specific
Scope 1	**1,860**	**2,030**	Combination
Facilities	1,305	1,844	Combination
EMEA	*604*	*644*	
NAM	*87*	*65*	
APAC[4]	*614*	*1,134*	
Scope 2 (Market)	**1,305**	**1,844**	Combination
Cloud[1,2]	187	208	
Scope 3	**187**	**208**	
Group sum	**3,352**	**4,082**	Combination
Per FTE	*0.81*	*0.93*	
Excl. MoMa	*2,563*	*3,076*	
Facilities	2,825	3,370	Combination
EMEA	*2,003*	*1,954*	
NAM	*208*	*281*	
APAC	*614*	*1,134*	
Scope 2 (Location)	**2,825**	**3,370**	

1 Includes global data.
2 Cloud emissions include the Scope 1 and 2 emissions of our cloud providers. Cloud providers' Scope 3 emissions are not included.
3 Calculation methods are derived from the GHG Protocol and are explained in the Non-financial reporting information section.
4 Calculation method changed for India Pune office from average-data to actual-data for 2022 figures effecting comparability.

INITIATIVES TO REDUCE OUR FOOTPRINT

We run various initiatives to limit our footprint, like optimizing office sustainability and improving resource management.

Green Building Program

We conduct building assessments, using rating methods like BREEAM (Building Research Establishment Environmental Assessment Method) and LEED (Leadership in Energy and Environmental Design), to achieve sustainable development. Topics addressed in these assessments are climate change, health, biodiversity, transport, water and material usage.

In 2022, we achieved BREEAM In Use certifications for one of our offices in Amsterdam and our Eindhoven office, both ranking Very Good. Our Dutch offices score, on average, 6% above the BREEAM benchmark, excelling in energy (+11%) and waste management (+18%). We also support biodiversity by providing shelter to bees and birds (+25%). Performance on indoor climate (-7%) will be addressed in refurbishments, integrating science-based concepts to support health, well-being, and productivity, per the WELL Building Standard.

Our office in Pune, India, obtained LEED Gold certification for its interior design and construction in 2022. It achieved reduction in water and energy consumption of 50% and 14% compared to the LEED baseline, respectively. Indoor air quality is monitored continuously to promote a healthy and productive workplace through high fresh-air ventilation rates.

Besides evaluating existing offices, we consider sustainable performance in building selection. Our new offices in Berlin and Lodz are LEED Building Design and Construction Gold certified. Today, 36% of our offices have a valid green building certification.

Energy efficiency

In 2022, we purchased certified domestic renewable electricity for 26% of our office locations. At the same time, we monitor energy consumption in larger offices to identify efficiency opportunities. In 2023, we will work on developing a strategy that enables a climate neutral office portfolio.

Primary energy use

(GJ/m^2)	2022	2021
Netherlands	0.79	0.78

A cleaner company fleet

We introduced a new Company Car policy for Belgian employees in 2021 and expanded the policy to France in 2022. The policy prioritizes the use of fully electric and hybrid-electric vehicles wherever possible, and supports the installation of charging stations at the office and at home.

Today, 9% of our fleet consists of electrified vehicles (2021: 2%). We aim to expand this share, but delivery of new electrified vehicles, as part of lease renewals, was slowed by industry shortages in recent years. Most vehicles that are yet to be delivered to us will be electric or hybrid.

Driving a responsible supply chain

We believe it is imperative that our suppliers integrate fundamental human rights, safety, and sustainability in their operations. Suppliers should adhere to our Supplier Code of Conduct and are asked to acknowledge our Environmental Policy. We also work proactively with major suppliers, like our cloud providers, to identify and limit our footprint.

Specifically related to the manufacture and shipment of our navigation devices, we have a Corporate Environmental Product Compliance program in place. We monitor the legislative and regulatory developments that apply to our products, accessories, and packaging in order to establish our corporate and supplier requirements. This includes the constantly evolving environmental legislation on chemical substances, changes in which we communicate with the business to ensure we are current and compliant.

Management of resources, efficiency and consumption

We monitor our resource consumption and carefully select materials for consumption. We strive to use Forest Stewardship Council-certified (FSC) products wherever available, work with FSC-certified catering and sanitation product providers, and take sustainability into account when selecting furniture, construction, and stationary suppliers. Additionally, we actively monitor water usage in the Netherlands, covering around 28% of our workforce.

Water use

(m^3/FTE)	2022	2021
Netherlands	3.04	2.92

Waste management and recycling

We are committed to a proactive global take-back strategy, spanning both waste generated in our offices as well as across the supply chain. We have implemented waste recycling in all offices and try to prevent waste production by facilitating the reuse of stationary products of office furniture. We are working with our waste service partners to ensure waste is processed responsibly, within the country.

Office waste

(% of waste in the Netherlands)	2022	2021
Reused	0%	39%
Recycled	49%	29%
Composted	19%	11%
Energy recovery	32%	21%
Landfill	0%	0%
Total (in kg)	**39,865**	**33,239**

The volume of waste generated in our supply chain is decreasing with our navigation device sales. This is reflected in the absolute amount of waste recycled within the supply chain. We remain committed to recycling and a responsible end-of-life treatment of our sold products.

Recycled waste

(Tons, unless stated otherwise)	2022	2021
Electrical and electronic equipment (WEEE)	171	197
Battery waste	11	13
Packaging waste[1]	178	211

[1] Excludes data from the U.S., Australia and New Zealand.

Traveling

To decrease the impact of our travel, we have focused on substituting air travel with rail travel on routes between the Netherlands, Belgium, France, and the UK. We continue to revise our Travel Program and challenge our travelers to travel more smartly and sustainably. Initiatives such as the prioritization of direct and sustainable routes and use of certifiably sustainable hotels are points that are evaluated to be added to our Travel Program.

EU TAXONOMY

The EU Taxonomy establishes an EU-wide classification framework intended to provide businesses and investors with a common language to identify and report on, as of January 1, 2022, to what degree economic activities can be considered environmentally sustainable through the creation of activity-specific sustainability criteria.

Under the requirements of the EU Taxonomy, companies currently in scope of Directive 2014/95/EU on the disclosure of non-financial information, which has been implemented into Dutch law through the Decree disclosure on non-financial information ('Besluit bekendmaking niet-financiële informatie'), need to disclose for reporting period 2022 the proportion of Taxonomy-aligned and non-Taxonomy aligned economic activities in their total turnover, Capital Expenditures (CAPEX) and Operating Expenses (OPEX) including certain qualitative information.

Our assessment on the eligibility and alignment of our business activities with the Taxonomy is made based on EU Delegated Act. For the assessment of eligibility, we consider the NACE macro sectors and activities listed in the Annexes for Climate Change Mitigation and Climate Change Adaptation, as published by the EU.

As the list of activities under this Delegated Act currently applies to specific sectors with high CO_2 emissions, our revenue generating activities currently do not fall under any of the activities described those Annexes. Consequently, the proportion of our current revenue that can be considered as Taxonomy-eligible and Taxonomy-aligned is 0% for both 2022 and 2021. The applied denominator for EU taxonomy turnover is defined as Revenue as disclosed in note 6 to the consolidated financial statements. Further disclosures as well as the applied accounting policy can be found in the same note.

More information on our product offerings and their contribution in making a positive impact on the environment can be found in the Product impact section.

For the CAPEX and OPEX KPIs, our efforts to make our offices and facilities more sustainable through activities such as the implementation of energy management systems and energy efficient lighting, can be considered as eligible activities.

Based on our assessment we identified 0.2% of eligible CAPEX (2021: <1%) which all qualify as aligned CAPEX and 0.02% eligible (2021: <1%) and aligned OPEX. This assessment is in line with our assessment last year. In the Non-financial reporting section on pages 130 to 132, we present the outcome of our assessment in more detail.

For assessing the extent of alignment we reviewed the criteria in article 3 of the EU regulation 2022/852 and the associated technical screening criteria included in the Delegated Acts. We identified the portion of our eligible activities that meet all technical criteria, and can thus be considered as Taxonomy-aligned activities. Such activities are included as part of the numerators of the respective KPIs. We ensured that expenditures are not double-counted and are only allocated once to each of the KPIs.

The denominator for the CAPEX KPI includes additions in Intangible assets, Property, plant & equipment (PP&E) and Lease assets, including reassessment. Refer to note 14-16 of the financial statements for more information on the additions to the above-mentioned assets as well as the related accounting policies.

The denominator for the OPEX KPI is determined based the EU Taxonomy definition which covers direct non-capitalized costs that relate to research and development, building renovation measures, short-term leases, maintenance and repair, and any other direct expenditures relating to the day-to-day servicing of assets or property, plant and equipment. This differs from the total of operating expenses in our financial statements.

Our assessment is based on our interpretations on how the regulation applies to our business activities and the impact thereof on eligibility and alignment. We will continue to assess our eligibility and the extent of EU Taxonomy alignment in 2023. Future guidance could result in more accurate definitions and altered decision-making in meeting reporting obligations that may come into force, which could impact future EU Taxonomy reporting.

Data privacy and security are built into everything we do

MT5 **SECURITY AND DATA PRIVACY**

KPI
Percentage of engineers certifiably trained on security

TARGET
75% of engineers certifiably trained on security by 2025

PERFORMANCE
9% of our engineers were certifiably trained on security at the end of 2022.

LINK TO STRATEGY
Our customers demand products that meet high safety and security standards.

Safety, security, and privacy has always been a priority at TomTom. We focus on giving everyone the right to personal privacy when using our technology. To this end, we follow a safety, security, and privacy-by-design approach to ensure the full life cycle of our products and services is designed to enable user privacy, with security and control over their personal data. With this approach, we consider data privacy, security, and the proper management of data from the start of design through the entire engineering and operations process.

Our ISO27001 certified Information Security Management System (ISMS) ensures that we meet the security demands of our customers and regulators in a standardized and holistic manner. Our security capabilities protect the privacy of our customers and our products.

Data drives our business, but data privacy comes first. That means we use big data to drive continued innovation and product improvements, processing billions of anonymous, or 'de-identified', global data points every day. People using products and services based on our technology contribute to a continuous feedback loop that we use to improve our technology for users. We do not use any data for advertising purposes.

We apply the EU General Data Protection Regulation (GDPR) on a global scale. GDPR is considered to be the most extensive privacy regulation in the world. It supports us in offering a high level of protection to our users worldwide by allowing us to use their data only when strict regulations are met.

All employees at TomTom are conscious of data privacy and security. There are many initiatives to create the appropriate awareness, and training is provided to all employees on a continuous basis. These trainings include company-wide e-learnings as well as training sessions with specific departments. In addition to the generic training, dedicated in-depth training is provided to our engineers for an additional level of security.

Mid-2022, we started a new program named Security Journey, that provides in-depth training on security tailored to the engineers and the programs they are working on. The training is intended to help identify potential security vulnerabilities early and reduce the number of vulnerabilities in programs over time.

The program is still in its early stages. In 2022, we trained 9% of our engineers over the course of several months, and we aim to train over 75% of our engineers by 2025. With this training, we will first address all engineers that work on customer-facing and critical applications. If we reach 75% of our engineering population, we will have trained most of these engineers. This initiative is still new and the completion rate is expected to grow significantly in the coming years. More details on the training and how this is measured can be found in the Non-financial reporting section.

TOMTOM PRIVACY PRINCIPLES

Protecting personal identity

We embed aggregated location data in our products, protecting individual details.

User control

We enable people to remain in control of their data. At any time, people can opt-out or opt-in when using our technologies.

We never sell personal data

We only use personal data to improve our technology.

No ads

We design our products to guide people, with no intrusive or distracting ads.

TOMTOM SECURITY PRINCIPLES

Security mindset

We put security at the heart of everything we do. Security is part of everybody's daily work, ensuring safe and secure products for our customers and a safe and secure working environment within TomTom.

Security by design

We embrace doing the right things and doing things right from the start – whatever TomTom builds, buys, or does. We do risk-based protection of information together with our customers.

Transparency

We promise to be the responsible and trusted custodians of our customers' data. We will be transparent if our customers' data or products are ever at risk, and proactively inform and involve customers as early as possible to minimize any potential adverse impacts.

For more information

How we use our customers' data:

Privacy at TomTom

Marked growth in Location Technology

(€ in millions, unless stated otherwise)	2022	2021	YoY change
Location Technology	436.4	394.0	11%
Consumer	99.9	112.9	-11%
Revenue	**536.3**	**506.9**	**6%**
Gross profit	**449.7**	**407.1**	**10%**
Gross margin (%)	84%	80%	
EBITDA[1]	-40.9	-19.5	
EBITDA margin (%)[1]	-8%	-4%	
Operating result (EBIT)[1]	**-97.6**	**-93.2**	
Operating margin (%)[1]	-18%	-18%	
Net result	**-102.7**	**-94.7**	
Free cash flow (FCF)[1, 2]	**-29.2**	**23.5**	
Free cash flow as a % of revenue	-5%	5%	

1 This is a non-GAAP measure and is further explained on page 137.
2 Free cash flow excludes restructuring charges related to the Maps realignment announced in June 2022.

Revenue

Group revenue was €536 million, 6% higher compared with 2021. Location Technology, consisting of our Automotive and Enterprise businesses, showed 11% revenue growth compared with last year.

Automotive realized significant revenue growth of 17% compared with last year. Revenue was positively impacted by increased car production as well as ramp up of some new contracts. This was further supported by a change in the way we identify performance obligations of new map subscriptions and the related timing of revenue recognition to better reflect the evolution in our products. Excluding the impact of the latter, the year-on-year reported revenue growth for Automotive would have been 12%. Automotive operational revenue increased with 11%, outperforming the year-on-year trend of car production volumes of +7% in our core markets.

Enterprise showed a modest year-on-year increase of 3% in revenue. Our Enterprise business benefited from the strengthening of the U.S. Dollar.

The Consumer segment performed in line with our expectations, generating revenue of €100 million in 2022, 11% lower compared with last year.

From a regional perspective, 59% of 2022 revenue was generated in Europe (2021: 58%), 26% in North America (2021: 27%) and 15% in the rest of the world (2021: 15%).

Gross profit

The gross margin for the year was 84%, an increase of 4 percentage points due to higher proportion of high-margin Location Technology revenue compared with 2021. The gross profit for the year was €450 million, 10% higher than in 2021.

Operating expenses

Total operating expenses (OPEX) for 2022 were €547 million compared with €500 million in 2021. The 2022 operating expenses include €26 million restructuring expenses related to the reorganization of our Maps organization as announced in June 2022. Excluding these restructuring expenses, total operating expenses for 2022 would have been €521 million.

The increase compared with 2021 is mainly the result of increased investments in R&D expenses relating to our application layer. Total R&D cash spend (R&D operating expenses excluding depreciation and amortization plus capital expenditures and capitalized contract costs) during the year showed a marked increase to €358 million (2021: €327 million). R&D operating expenses increased by €11 million as the increase in R&D cash spend is partially offset by lower amortization (2022: €33 million; 2021: €47 million).

Sales and Marketing expenses increased by €5 million, among others, due to a ramp up of our sales activities to drive further growth.

General & Administrative expenses excluding the restructuring expenses, showed an increase of €5 million year on year.

Net result

The total net result for the year was a loss of €103 million (2021: loss of €95 million).

Balance sheet

Total assets decreased by €83 million, from €891 million at the start of the year to €808 million at the end of December 2022. The decrease reflects further amortization of our map database as well as a decrease in cash (including fixed-term deposits).

Deferred revenue of €439 million was relatively flat compared with the €441 million at the end of last year. The movement reflects a decrease of deferred revenue in Enterprise and Consumer offset by an increase in the deferred revenue position of Automotive. Automotive deferred revenue is impacted by the aforementioned change in the way we treat the performance obligations of map subscriptions, which resulted in less revenue being deferred in the last two months of the year (refer to Accounting policy on License revenue).

Cash flow

Total cash flows from operating activities in 2022 was an outflow of €31 million, a decrease of €68 million compared with last year (inflow of €37 million in 2021). The year-on-year decrease is the result of lower cash collection from customers and some unfavorable movements in working capital at the end of 2022.

Total cash flow from investing activities in 2022 was an outflow of €31 million compared with an outflow of €20 million in 2021. Excluding the movements of cash placed in fixed term deposits, the cash flow used in investing activities decreased by €3 million year on year to €10 million (2021: €13 million) mainly due to lower investments in property, plant and equipment.

Free cash flow[1] is an outflow of €42 million compared with an inflow of €24 million in 2021. Free cash flow[1] excluding the cash out related to Maps reorganization as announced in June 2022, was an outflow of €29 million.

Cash and liquidity

The cash flow from financing activities for the year was an outflow of €10 million compared with an outflow of €44 million in 2021 which year included a €33 million outflow relating to our share buyback program.

In 2022, 519 thousand options (2021: 893 thousand options) were exercised resulting in a €4 million cash inflow for the year (2021: €5 million).

At year-end 2022, TomTom had no outstanding bank borrowings and reported a net cash[1] position of €304 million (2021: €356 million).

Outlook

In 2023, we expect group revenue growth to continue to between €540 million and €580 million. Location Technology revenue is expected to grow to between €455 million and €485 million, with a strong increase in Automotive revenue offsetting a decline in our Enterprise business. We envision our Enterprise business to show growth from Q4 2023 onward.

We expect to generate positive free cash flow[1, 2] of between 0% and +5% of group revenue, supported by growing revenues as we expect our investment levels, excluding restructuring charges, to be roughly equal equal to 2022. Increased investments in our application layer and sales activities is expected to offset decreases in other areas.

Our Automotive products have evolved into API-based updates and services in combination with an initial onboard map, from a predominantly onboard offering including updates. As a result of this change, the timing of IFRS revenue recognition for new map subscription contracts changed from Q4 2022 onward. In the fourth quarter of 2022, the impact on reported revenue was a positive effect of €9.6 million, and we expect the positive impact on full-year 2023 revenue to be around €40 million.

The change in revenue recognition resulting from these products will also have an impact on 2024 and 2025 revenue, though the 2025 impact is expected to be negligible. We reiterate our mid-term Location Technology revenue ambition of €600 million in 2025, in combination with a free cash flow generation target of 10% of group revenue.

The total number of employees in 2023 is expected to be comparable with the end of 2022.

1. Free cash flow (FCF) and net cash are non-GAAP measures and are further explained on page 137.
2. Free cash flow excludes restructuring charges related to the Maps realignment announced in June 2022.

Record order intake in Automotive

Location technology

- Automotive backlog increased to €2.4 billion (2021: €1.9 billion). The year-on-year improvement of the backlog was the result of a strong order intake related to new deals with among others Hyundai Motor Group and Stellantis.
- Location Technology generated revenue of €436 million in 2022, 11% increase year on year.
- Automotive revenue was €260 million in 2022, 17% higher compared with last year. Driven by an evolution of our products, revenue was positively impacted by a change in the way we identify performance obligations of new map subscriptions and the related timing of revenue recognition, resulting in an additional revenue of €9.6 million in 2022. Excluding this impact, the year-on-year reported revenue growth for Automotive would have been 12%.
- Automotive operational revenue in 2022 was €296 million compared with €266 million in 2021, an increase of 11%.
- The deferred revenue position of Automotive increased to €407 million at the end of 2022 from €378 million at the end of 2021
- Enterprise revenue for the year was €176 million, 3% higher compared with 2021 mainly due to strengthening of the U.S. Dollar.
- EBITDA and EBIT improved year on year reflecting higher revenue, partly offset by continued investments in our product roadmap and sales and marketing activities.

(€ in millions, unless stated otherwise)	2022	2021	YoY change[1]
Automotive	260.0	223.1	17%
Enterprise	176.4	170.9	3%
Total revenue	**436.4**	**394.0**	**11%**
EBITDA[2,3]	**-15.6**	**-32.6**	
EBITDA margin (%)	-4%	-8%	
Operating result (EBIT)[3]	**-71.2**	**-105.2**	
EBIT margin (%)	-16%	-27%	

1 Change percentages and totals calculated before rounding.
2 D&A relates mainly to the map database.
3 The EBIT and EBITDA measure and the reconciliation to the income statement is further explained in note 5 of the consolidated financial statements.

Consumer

- Consumer generated revenue of €100 million in 2022, a 11% decrease year on year, in line with our expectations given the declining PND market.
- EBITDA and EBIT decline year on year due to lower revenue.

(€ in millions, unless stated otherwise)	2022	2021	YoY change[1]
Consumer products	92.7	105.0	-12%
Automotive hardware	7.2	7.9	-9%
Total revenue	**99.9**	**112.9**	**-11%**
EBITDA[2]	**7.4**	**18.7**	
EBITDA margin (%)	7%	17%	
Operating result (EBIT)[2]	**6.5**	**17.7**	
EBIT margin (%)	6%	16%	

1 Change percentages and totals calculated before rounding.
2 The EBIT and EBITDA measure and the reconciliation to the income statement is further explained in note 5 of the consolidated financial statements.

2022 operational highlights

Automotive awards

Stellantis awarded us a new global deal to provide our maps, navigation software, and connected services, such as real-time traffic information, to STLA SmartCockpit, Stellantis' next-generation digital cockpit platform, set to arrive in 2024. Existing Stellantis platforms will continue to be powered by TomTom's navigation solutions.

We will support Hyundai Motor Group's entire vehicle lineup in Europe with our maps and real-time traffic. Over the coming years, millions of vehicles will come equipped with this technology as standard, establishing a 100% take-rate.

Stellantis launched its Citroën C5 and Opel Astra, both models showcasing TomTom's upgraded full-stack connected navigation solution, including over-the-air updates to provide fresh map information and accurate navigation. The suite also features extensive information on EV charging points and safety-enhancing ADAS Maps.

Enterprise awards

We deepened our long-standing partnership with PTV Group, powering their new professional truck navigation app through our Navigation SDK. Our product enables up-to-date maps, custom truck routing and more in PTV Group's app, globally for the first time.

We have entered into a cooperation with the Dutch Ministry of Infrastructure and Water Management and five other companies so that drivers that rely on TomTom Traffic Services will benefit from improved safety features.

New products

We introduced the TomTom Maps Platform, combining TomTom's own data with new 'super' sources such as sensor-derived observations and open-source data. The Platform will be able to produce maps that offer broader geographical coverage, an extended set of supported data types, and faster update cycles.

We launched our new Navigation SDK for Mobile, enabling companies and developers to access our navigation software. The modular SDK supports both Android and iOS and combines all our location APIs with turn-by-turn navigation to create a toolkit for developers.

We matured our Maps APIs portfolio, both expanding existing functionality a well as launching three new APIs. Built with fleet and logistics, ride-hailing, and food delivery markets in mind, they enable the optimization of logistics operations. The new APIs support use cases such as complex dispatch for commercial fleets, dynamic multi-stop routing, and post-drive analysis through route reconstruction.

Collaborations

Together with Amazon Web Services (AWS), Meta, and Microsoft, we co-founded the Overture Maps Foundation. The Overture Maps Foundation is a collaborative effort that aims to develop interoperable open map data, which will be leveraged by the TomTom Maps Platform to create maps products that serve a broad range of commercial use cases, including the most demanding applications.

We have teamed up with the MIH Consortium to build the next generation of electric vehicle, autonomous driving, and mobility service applications. TomTom is the first and only global mapmaker and navigation supplier to join this partnership, to which we will contribute our extensive knowledge in digital cockpit and navigation user experience for EV drivers.

TomTom and Webfleet Solutions combined forces to offer an integrated mobile service for professional drivers and fleet managers. Together, we will offer workforce management features, best-in-class navigation for all vehicle types, up-to-date maps with live traffic information, reliable ETAs, and more.

We expanded our agreement with Maxar Technologies, which will enable us to integrate high-resolution global satellite imagery in our products and services. This provides end-users and our Automotive and Enterprise software platform customers with a photorealistic map.

Other news

For the first time, our Traffic Index 2022 gave insights in congestion levels and its effect on emission in four European capitals over 2021. TomTom data also demonstrated the impact electric vehicles can have on lowering localized carbon emissions and associated air pollution.

For more information

tomtom.com/company/press-releases/

GOVERNANCE

Committed to conducting an ethical, transparent, and accountable business

At TomTom, we foster sound corporate governance. Our governance framework is driven by five themes.

Culture

Our people and culture are fundamental for our success. Innovation is not only in our technology, it is also part of who we are both as individuals and as a global collective of over 3,800 people. Together we think big, share, learn fast and support each other's growth and development. We have an agile work culture with an entrepreneurial spirit, where talent makes an impact. More information is provided in the Our Impact chapter.

Operating a responsible business

We create location technologies to help solve the mobility challenges our customers face. Together we are accelerating the future of mobility. We embrace our responsibility to not only minimize our negative impact, but also maximize the positive one. We do so by giving back to the communities in which we are present. We uphold ethical business practices, including strict data privacy practices. We are committed to a high degree of transparency. We engage with stakeholders to understand their standpoints and interests. The developed understanding of our stakeholders' interests, introduction of relevant KPIs, and progress on adequate ESG reporting practices, will further enable us to move toward a fully integrated ESG strategy.

Compliance with laws and regulations

Our governance structure is predominantly based on our Articles of Association, Dutch Civil Code (DCC) requirements, the most recent Dutch Corporate Governance Code (the Code), and complemented by our Code of Conduct, internal policies and procedures. Our Compliance Management Framework supports us in continuously assessing, monitoring and further maturing the programs we have in place to ensure we comply with the Code, applicable laws and regulations, and relevant developments.

Long-term value creation

We aim to create the most relevant and beneficial impact for all stakeholders in everything we do, powered by a successful, sustainable value creation model. Together with our people, customers and partners we are leading progress. We strive to make the most innovative technologies that help advance our vision and business. Allocating capital to the businesses we think offers the best prospects for growth and returns. More information is provided in the How we create value section.

Strong risk management and internal control framework

Risk management forms an integral part of how we govern and manage our business. The TomTom risk management process is designed to identify and evaluate opportunities and risks as early as possible. We take appropriate measures in order to seize opportunities and limit business losses with an aim to avoid risks that pose a threat to our future, thus strengthening our ability to create value. Our Internal Control framework is designed to maintain integrated management control over the company's operations with a primary aim of ensuring the integrity of our financial reporting and compliance with laws and regulations. More information is provided in the Risk management and control section.

COMPANY STRUCTURE

TomTom N.V. is a public limited liability company incorporated under Dutch law and listed on Euronext Amsterdam in the Netherlands.

TomTom has a two-tier board structure, consisting of a Management Board and a Supervisory Board, accountable to the General Meeting for the performance of their duties.

CAPITAL STRUCTURE

The company's authorized and issued share capital structure on 31 December 2022 is reflected in the table.

Share capital	Type	Nominal value (€)	Number
Authorized	Ordinary	0.20	300,000,000
	Preferred	0.20	150,000,000
Issued	Ordinary	0.20	132,366,672

Substantial shareholdings and short positions

Shareholders owning 3% or more of the issued capital and/or voting rights of a listed company (a substantial shareholding or short position) must report this to the Netherlands Authority for the Financial Markets (AFM) as soon as this threshold is reached or exceeded.

The following shareholders (in)directly owning 3% or more of the company's issued capital and/or voting rights were registered with the AFM as of 31 December 2022:

Name	% issued capital or % voting rights
Harold Goddijn – Founder	11.6 %
Corinne Vigreux – Founder	11.3 %
Peter Frans Pauwels – Founder	11.1 %
Pieter Geelen – Founder	10.7 %
J.H.H. de Mol	between 5% and 10%
DNB Asset Management AS	between 5% and 10%
Teslin Participaties Coöperatief U.A.	between 5% and 10%
BlackRock, Inc.	between 3% and 5%
TomTom N.V.	3 %

GENERAL MEETING

The General Meeting is held at least once a year and takes place in Amsterdam, the Netherlands. The General Meeting is convened by public notice via our website.

Recurring agenda items are the adoption of the financial statements, the discharge of the Management Board and Supervisory Board from responsibility for the performance of their respective duties for the previous financial year, and the remuneration of the Management Board and the Supervisory Board. When deemed necessary in the interests of the company, an Extraordinary General Meeting may be convened by resolution of the Management Board or the Supervisory Board.

The minutes and the resolutions of the General Meeting are recorded in writing. The minutes are available to the shareholders on our website no later than three months after the meeting.

Powers of the General Meeting

The General Meeting has the following rights and powers:

- adopt the financial statements;
- approve amendments to the Articles of Association;
- appoint, suspend or dismiss members of the Management Board and the Supervisory Board;
- discharge the Management Board and Supervisory Board from responsibility for the performance of their respective duties for the previous financial year;
- advise on the remuneration report of the Management Board and the Supervisory Board;
- approve remuneration policy every 4 years and any amendments to the remuneration policy of the Management Board and the Supervisory Board;
- authorize the Management Board to repurchase or cancel outstanding shares;
- authorize the Management Board to issue, or to grant rights to subscribe for, shares in the capital of the company for general (up to 10%) and/or specific purposes (up to 10% of the issued share capital);
- authorize the Management Board to restrict or exclude the preemptive rights of existing shareholders on the issuance of, or right to subscribe for, shares in relation to authority granted, as mentioned above; and
- appoint the external auditor.

Voting rights

Each of our ordinary shares and preferred shares, which have not been issued, is entitled to one vote. The voting rights attached to any shares held by the company are suspended as long as they are held in treasury.

Resolutions of the General Meeting are adopted by an absolute majority of the votes cast, except where Dutch law or the company's Articles of Association provide for a special majority.

The company's Articles of Association stipulate the percentage of votes required to be cast to execute the powers of the General Meeting. These percentages are also in accordance with Dutch Law.

The following resolutions of the General Meeting require that a minimum of 50% of our issued share capital is represented at the meeting, and at least two-thirds of the votes cast by those represented at the meeting:

- cancel a binding nomination for the appointment of a member of the Management Board or the Supervisory Board;
- appoint a member of the Management Board or the Supervisory Board in contravention of the binding nomination by the Supervisory Board; or in case the Supervisory Board did not make use of its rights to make a binding nomination; and
- dismiss or suspend a member of the Management Board or the Supervisory Board.

Irrespective of the share capital represented at the General Meeting the following resolutions require a majority of at least two-thirds of the issued share capital that are represented at the meeting:

- amend the Articles of Association;
- restriction and exclusion of preemptive rights, or the designation of the Management Board as the authorized body to exclude or restrict such rights;
- reduction of the issued share capital; and
- a legal merger or legal demerger of the company.

Issue of shares

The Management Board is authorized by a resolution of the General Meeting to issue shares, or grant rights to subscribe for shares, subject to the approval of the Supervisory Board and limited to two times 10% of the issued share capital. No resolution of the General Meeting is required for the issuance of shares pursuant to this previously granted right.

The Management Board continues to believe it is in the company's best interest to be in a position to react promptly when business opportunities arise that require the issuance of ordinary shares.

The Management Board wishes to be authorized to issue ordinary, or grant rights to subscribe for, shares should such an occasion arise, without the need to obtain prior approval from the shareholders at an Extraordinary General Meeting. Such meetings take time to convene and could generate disruptive market speculation.

Treasury shares

TomTom uses treasury shares to cover its commitments arising from its long-term employee incentive plans. On 31 December 2022, the remaining number of treasury shares outstanding was 3,974,381, equal to a capital interest of 3% of TomTom N.V.

Preferred shares

Stichting Continuïteit TomTom (referred to as the Foundation) was established in 2005, with a board independent of TomTom. The purpose of the Foundation is to safeguard the company's and all of its stakeholders' interests and to prevent situation or mitigate circumstances that may threaten its continuity or identity.

The Foundation has been granted a call option entitling it to subscribe for preferred shares up to 100% of the aggregate nominal value of the outstanding ordinary shares at the time of issue, up to a maximum of the number of preferred shares included in the authorized capital at the time of issue. The Foundation shall subscribe for the preferred shares at par value. Immediately after subscribing for preferred shares, the Foundation shall proceed to pay one-quarter of the nominal value of the preferred shares at the time of issue.

Three-quarters of the nominal amount shall only need to be paid upon call by the company, without prejudice to the provisions of article 2:84 of the DCC. The Foundation is entitled to exercise the option right in one or more tranches. The possible issuance of preferred shares to the Foundation will be temporary and subject to the Articles of Association and the legislation on takeovers.

Unless the preferred shares have been issued pursuant to a resolution of the General Meeting, the Articles of Association require that a General Meeting be held within one year after the issue of preferred shares to consider their purchase or withdrawal. If no resolution on the purchase or withdrawal of the preferred shares is adopted at such a General Meeting, a General Meeting will be held every year thereafter for as long as the preferred shares remain outstanding.

To date, no preferred shares have been issued.

2022 General Meetings

During 2022, two General Meetings were held.

The Annual General Meeting was held on 14 April 2022. The key resolution passed by the Annual General Meeting was the reappointment of Derk Haank as a member and Chair of the Supervisory Board.

An Extraordinary General Meeting was held on 24 June 2022 for the purpose of appointing Marili 't Hooft-Bolle (with immediate effect) and Gemma Postlethwaite (as per 1 October 2022) as new Supervisory Board members.

Capital Markets Day

On 2 November 2022, we hosted a Capital Markets Day for our financial stakeholders. At the Capital Markets Day, TomTom's management introduced the new TomTom Maps Platform, provided commentary on market opportunities, and delineated our mid-term ambitions. All information presented at the Capital Markets Day has been made available on our website.

For more information

Corporate Governance

TomTom Shareholder Meetings

Capital Markets Day

Management Board

The Management Board is responsible for the day-to-day management of TomTom's operations. Our Management Board consists of three members:

HAROLD GODDIJN

CHIEF EXECUTIVE OFFICER

Nationality Dutch

Year of first appointment 2001

Term of office 2021–2025

Age 62

Current positions

Member of the Supervisory Board of Coolblue

Former positions

Harold began his career with a venture capital firm. In 1989, he founded and led Psion Netherlands BV, a joint venture with Psion PLC. He also served on the board of Psion PLC. In 1991, he co-founded TomTom together with Corinne Vigreux, Peter-Frans Pauwels and Pieter Geelen. Harold has been the CEO of TomTom since 2001.

Education

Master's degree in Economics, University of Amsterdam

TACO TITULAER

CHIEF FINANCIAL OFFICER

Nationality Dutch

Year of first appointment 2015

Term of office 2019–2023

Age 51

Current positions

Member of the Executive Master of Finance and Control Advisory Board, University of Amsterdam, and Member of the Chief Economist Roundtable, Ministry of Economic Affairs and Climate Policy

Former positions

Taco joined TomTom in 2005, holding various senior management positions in Group Control, Treasury and Investor Relations before his appointment as CFO in 2015. Prior to TomTom, Taco spent eight years with KPN, holding senior management roles in Finance and Investor Relations.

Education

Master's degree in Business Economics, University of Groningen

ALAIN DE TAEYE

MANAGEMENT BOARD MEMBER

Nationality Belgian

Year of first appointment 2008

Term of office 2020–2024

Age 65

Current positions

None

Former positions

Alain founded Informatics and Management Consultants (I&M). In 1989, I&M was integrated into the Dutch Tele Atlas Group. From 1990, Alain headed Tele Atlas, which was acquired by TomTom in 2008. The same year, Alain became a member of TomTom's Management Board. Alain also served as non-executive director of Cyient Limited.

Education

Graduated as engineer-architect, University of Ghent

Composition and appointment

According to our Articles of Association, the Management Board must consist of at least two members, and is jointly (two members acting jointly) authorized to represent the company. Each member is appointed for a maximum period of four years, with the possibility of re-appointment for consecutive four-year terms in accordance with the Code.

No member holds more than two supervisory positions at Dutch 'large companies' in accordance with article 2:132a of the DCC.

The General Meeting appoints the members of the Management Board, subject to the right of the Supervisory Board to make a binding nomination to the General Meeting.

Diversity

The Management Board's composition is based on diversity of experience, background, skills, knowledge and insights. Currently, TomTom has no women in the Management Board, even though the Supervisory Board has set goals for diversity and inclusion to have at least one woman in the Management Board. In 2023, we will introduce new company-wide and senior management targets for our female representation to be achieved by 2025. However, our current board composition allows the Management Board to execute the strategy efficiently, supported by the extended management board (not deemed an executive committee under the Code). We believe in the strength of diversity and will, when a vacancy in the Management Board arises, consider all diversity aspects, including gender.

As our workforce is increasingly composed of highly technical and engineering roles, we acknowledge the complexities involved in reaching gender equality targets. Nevertheless, as part of our wider ambition to take important steps forward for representation, we have set ourselves specific targets to increase gender equality in senior management. More information on diversity and inclusion can found in our Diversity and Inclusion Policy, the Impact chapter and on the TomTom website.

Responsibilities

The Management Board is responsible for the day-to-day management of TomTom and is guided by the company's interests and considers the interests of all stakeholders.

Management Board's responsibilities involve, among others:

- create long-term value by establishing and achieving strategic objectives;
- manage an adequate risk management and internal control framework;
- manage legal compliance and sustainability matters; and
- manage the environmental, social and governance matters relevant to the Company.

The Management Board consults with the Supervisory Board on important matters and submits important decisions to the Supervisory Board for its preapproval, as further described in the company's Articles of Association, which are available on our corporate governance website page. The Management Board is accountable for its actions to the Supervisory Board and the General Meeting.

Risk management and internal control framework

We have a risk management and internal control framework in place. Our risk management is designed to identify and evaluate opportunities and risks as early as possible and to take appropriate measures in order to seize opportunities and limit business losses. The strategic risks and opportunities are monitored continuously over the year by our Portfolio Management department.

The operational, financial and legal and compliance risks are monitored by our corporate risk management function, which also has regular meetings with the Portfolio Management to ensure complete reporting on the overall risk profile of TomTom. The group risk profile is taken into account when establishing our strategy, annual business plans and budgets. The internal controls are contained and maintained in the Internal Control Framework.

The Audit Committee assists the Supervisory Board in its responsibility to oversee the system of internal control and risk management, including the effectiveness of the internal auditors. For more information reference is made to the Audit Committee activities included in the Supervisory Board Report.

A full overview of the risk management and the internal control framework is included in the Risk management and control section.

Committees

The Management Board is supported by committees in their day-to-day management responsibilities.

Committees	Composition	Responsibilities
Senior Leadership Team[1]	Chief Technical Officer, Chief Product Officer, Chief Revenue Officer, Chief Marketing Officer and Chief HR Officer	Support the Management Board members with expertise and advice in executing the company's strategy and business priorities.
Technology, Risk & Compliance Forum	Chief Technical Officer, Chief Product Officer, and representatives from Product Units, Security & Safety, Engineering Departments and Shared Services	i) Establish and maintain an adequate security management system aligned with the company's priorities and with the Management Board and Senior Leadership Team's decisions on strategy priorities and risks; and ii) report on business-critical compliance matters.
Disclosure Committee	Representatives of Business Units, Legal, Group Control, Investor Relations and Corporate Communications	(i) Ensure compliance with the disclosure requirements under applicable laws and regulations; (ii) assist and inform the Management Board on the maintenance and evaluation of disclosure controls and procedures; and (iii) gather all relevant financial and non-financial information and assess materiality, timelines and necessity for disclosure of such information.

[1] Not deemed to be an Executive Committee, as referred to in best practice provision 2.1.3 of the Code.

Conflicts of interest

Members of the Management Board must report any (potential) conflict of interest to the Chair of the Supervisory Board. The Supervisory Board shall decide whether a conflict of interest exists.

The member of the Management Board who has a (potential) conflict of interest shall not participate in discussions and decision-making on a subject or transaction in relation to which the member has a conflict of interest with the company. Decisions to enter into transactions under which members of the Management Board have conflicts of interest that are of material significance to the company and/or to the relevant member(s) of the Management Board, require the approval of the Supervisory Board. No such transactions have been concluded in 2022.

In addition, in accordance with provision 2.7.5 of the Code, we report that no transactions occurred in 2022 between the company and legal or natural persons who hold at least 10% of the shares in the company.

Remuneration

The Supervisory Board determines each Management Board member’s remuneration in line with the Remuneration Policy. The Remuneration Policy is subject to a binding vote of the General Meeting once every four years. This vote occurred for the first time in 2020.

The application of the Remuneration Policy over 2022 is described in the Remuneration Report and is subject to an advisory vote of the General Meeting in 2023.

The remuneration of individual members of the Management Board can be found in the Remuneration Report. The Remuneration Policy can be found on the TomTom website.

Supervisory Board

The Supervisory Board supervises the Management Board and TomTom's general affairs and supports the Management Board by providing advice. Our Supervisory Board consists of five members:

DERK HAANK

CHAIR

Nationality Dutch

Date of first appointment
28 September 2018

Term of office 2022–2026

Age 69

Current positions

Chair of the Supervisory Board of Ebusco Holding NV and member of the Supervisory Board of Azerion Group NV

Former positions

CEO of Springer Science+Nature, CEO of Elsevier Science, Executive Board Member of Reed Elsevier PLC, Vice Chair of the Supervisory Board of KPN, and Non-Executive Board Member at Albelli

Committees

RemCo, SelCo (Chair)

Expertise

Business leadership, commercial, and transformation

JACK DE KREIJ

DEPUTY CHAIR

Nationality Dutch

Date of first appointment
1 January 2017

Term of office 2021–2025

Age 63

Current positions

Vice Chair of the SvB and Chair of the Audit Committee of Wolters Kluwer NV, SvB member and Chair of the Audit Committee of Boskalis, Advisory Board member of Metyis, Non-Exec Board member of Oranje Fonds, Board member of St. Preferente Aandelen Philips, and Chair of the Board of VEUO

Former positions

SvB member and Chair of the Audit Committee of Corbion NV, Vice Chair of the Exec Board and CFO of Royal Vopak NV, Senior Partner & Transaction services Territory Leader PwC, and formerly employed with the Dutch Ministry of Finance

Committees

AC (Chair)

Expertise

Finance, audit and risk management, governance and international business

MICHAEL RHODIN

SUPERVISORY BOARD MEMBER

Nationality American

Date of first appointment
24 April 2017

Term of office 2021–2025

Age 62

Current positions

Member of the Board of Directors of Open Digital Services (Santander), HZO, Inc., Symbotic, Inc. and Acoustic, Inc., and International Board of Advisors member of Santander Group

Former positions

Senior Vice President of IBM, Board of Directors member of Precisely Inc.

Committees

AC

Expertise

Technology, innovation, and transformation

MARILI 'T HOOFT-BOLLE

SUPERVISORY BOARD MEMBER

Nationality Dutch

Date of first appointment
24 June 2022

Term of office 2022–2027

Age 49

Current positions

Managing Director InSided by Gainsight Board Member of the Prins Bernhard Nature Fund, and Chair of the Advisory Board of One Planet Crowd

Former positions

Supervisory Board member of Vonq, COO of WeTransfer, COO of Signal AI, and consultant at McKinsey & Company

Committees

RemCo (Chair), SelCo

Expertise

Technology, innovation, and transformation

GEMMA POSTLETHWAITE

SUPERVISORY BOARD MEMBER

Nationality British

Date of first appointment
1 October 2022

Term of office 2022–2027

Age 46

Current position

CEO of Arizent, Board Member of Gerson Lehrman Group, and member of the New York Board of the All Stars Project

Former positions

CEO of PIRA Energy Group, formerly employed by Thomson Reuters, Infogroup and Altegrity, and member of the Innovation Board of Wolters Kluwer NV

Committees

AC

Expertise

Business leadership, stakeholder management and transformation

Composition and appointment

The Supervisory Board shall consist of a minimum of three members. The Supervisory Board has appointed a Chair and a Deputy Chair from amongst its members.

	AC	RemCo	SelCo	Appointment date	Term ('22 '23 '24 '25 '26 '27)
Derk Haank (Chair)		Member	Chair	26 Sep 2018	2
Jack de Kreij (Deputy Chair)	Chair			1 Jan 2017	2
Michael Rhodin	Member			24 Apr 2017	2
Marili 't Hooft-Bolle		Chair	Member	24 Jun 2022	1
Gemma Postlethwaite	Member			1 Oct 2022	1

Legend
Chair
Member
Term

The General Meeting appoints the Supervisory Board members, subject to the right of the Supervisory Board to make a binding nomination. The full procedure of appointment and dismissal of members is explained in article 17 of the company's Articles of Association.

In accordance with the Code, members may be appointed for a maximum period of 12 years. After four years, members may be reappointed for a second term of four years. Additionally, members may be appointed for two terms of two years each.

Members may retire periodically in accordance with a rotation plan, which can be downloaded from our corporate governance website page.

On 24 June 2022, Marili 't Hooft-Bolle was appointed as member of the Supervisory Board. On the same date, Gemma Postlethwaite was appointed effective as of 1 October 2022.

Profile and diversity

The Supervisory Board has determined a profile regarding its size and composition, taking into account the nature of TomTom's business and activities, such that the combined experience, expertise and diversity of the Supervisory Board members enables the Supervisory Board to best carry out its responsibilities. In particular, the desired composition includes the following areas of expertise and backgrounds:

- financial administration and accounting, and internal risk management and control systems;
- management strategy and risks inherent to TomTom's business;
- technology, innovation, and transformation;
- (senior) management selection, recommendation and development; and
- compliance, corporate governance and company law.

The Supervisory Board deems its current position fit for purpose and compliant with the below objectives. With the appointment of Marili 't Hooft-Bolle and Gemma Postlethwaite, the composition of the Supervisory Board was 40% female and 60% male on 31 December 2022. Therefore, the Supervisory Board deems the current composition balanced and compliant with the gender diversity target of at least one-third male and female representation as laid down in the act to improve gender diversity in boards of Dutch companies, which entered into force on 1 January 2022.

Objectives	
An equal number of men and women during a search, selection and appointment procedure	Achieved
At least one woman in the Management Board	More to do
At least two women in the Supervisory Board	Achieved
A Supervisory Board Chair living in the Netherlands	Achieved
At least one member in the Supervisory Board from outside the EU	Achieved
At least two members in the Supervisory Board with a technology/software background	Achieved

Legend
Achieved
More to do

Role and responsibilities

The Supervisory Board oversees the Management Board in how it executes its strategic objectives and operations. It regularly discusses the strategy and the associated risks and supports the Management Board by providing advice. It acts in the interest of the company and all stakeholders: employees, shareholders, customers and society, including the environment.

According to our Articles of Association, certain decisions of the Management Board are subject to the approval of the Supervisory Board. This includes resolutions of the Management Board to issue, or grant rights to acquire, shares or restrict or exclude preemptive rights. Reference in made to article 14 of our Articles of Association.

A description of the activities of the Supervisory Board in 2022 is given in the Supervisory Board Report section.

Committees

In line with the Code, the Supervisory Board has established an Audit Committee (AC), a Remuneration Committee (RemCo) and a Selection and Appointment Committee (SelCo). Each of these committees is staffed by members of the Supervisory Board and at least one of the members of the AC is an expert in financial reporting in accordance with criteria of the Decree Establishing Audit Committee. A description of the activities performed by each of the committees during 2022 is given in the Supervisory Board Report.

Audit Committee

The AC undertakes preparatory work for the Supervisory Board's decision-making regarding the supervision of the integrity and quality of the company's financial reporting and the effectiveness of the company's internal risk management and control systems. The AC monitors the performance and observations of the external auditor and the effectiveness of the external audit process, as well as its independence. For its composition and the way in which the AC discharges its duties, reference is made to the AC Charter.

Selection and Appointment Committee

The SelCo is responsible for the size and composition of the Supervisory Board, its succession planning and the functioning of its members. It also pays strong attention to the company's talent management and succession planning for key positions. For its composition and the way in which the SelCo discharges its duties, reference is made to the SelCo Charter.

Remuneration Committee

The RemCo prepares the Supervisory Board's decision-making regarding the remuneration of the individual Management Board members and the remuneration of the Supervisory Board. The RemCo oversees the effectiveness, relevance and implementation of the Remuneration Policy. For its composition and the way in which the RemCo discharges its duties, reference is made to the RemCo Charter.

Conflicts of interest

Members of the Supervisory Board, excluding the Chair, must report any (potential) conflict of interest to the Chair of the Supervisory Board. If the (potential) conflict of interest involves the Chair of the Supervisory Board, it must be reported to the Deputy Chair of the Supervisory Board. The Supervisory Board shall decide whether a conflict of interest exists.

The member who has a (potential) conflict of interest shall not participate in discussions and decision-making on a subject or transaction in relation to which the member has a conflict of interest with the company. Decisions to enter into transactions under which members of the Supervisory Board have conflicts of interest that are of material significance to the company and/or to the relevant member(s) of the Supervisory Board, require the approval of the Supervisory Board. No such transactions have been concluded in 2022.

Remuneration

The General Meeting determines the remuneration of the members of the Supervisory Board including the members of its committees. The Supervisory Board Remuneration Policy is subject to a binding vote of the General Meeting once every four years. This vote occurred for the first time in 2020.

The application of the Remuneration Policy over 2022 is described in the Remuneration Report (also available on our corporate website) which report is subject to an advisory vote of the General Meeting in 2023.

The remuneration of individual members of the Supervisory Board can be found in the Remuneration Report. The Remuneration Policy can be found on the corporate website.

For more information

Corporate governance-related documents are available on our website, including, amongst others:

- Articles of Association
- Management Board Remuneration Policy
- Supervisory Board Remuneration Policy
- Supervisory Board Rotation Plan
- Code of Conduct
- Open Ears Procedure
- Diversity and Inclusion Policy
- Policy on bilateral and other contacts with shareholders
- Inside Information Policy

Message from the Chair of our Supervisory Board

"Our primary responsibility as a Supervisory Board is to supervise, guide, and advise the Management Board as it implements its new Maps strategy. As a result, the Supervisory Board will ensure the use of a long-term business model that seeks to create value for all stakeholders."

DERK HAANK

Chair of the Supervisory Board

2022 was a year of macroeconomic uncertainties and inflationary pressure impacting people and businesses around the globe. While not immune to these developments, TomTom's results in 2022 showed resilience. Encouragingly, TomTom introduced a new Maps Platform to the markets and embarked on an innovative journey.

We fully support the Management Board's efforts to implement its new Maps strategy, including the realignment of its Maps organization. By increasing automation, investing in cutting-edge technology, and collaborating with partners, TomTom will continue to innovate its products for its customers, creating new business opportunities and advancing critical technology. We commended management for handling the difficult and impactful – but necessary – decision to realign the Maps organization to ensure our future competitiveness.

Our Maps Platform will serve as a catalyst for faster innovation and will support an ecosystem in which businesses and users from all over the world may collaborate to build the world's smartest map. Meanwhile, our SDKs and APIs, which make it easier to consume the new maps, can now power the most demanding apps. The Management Board's ongoing efforts to improve products through automation, online transition, and performance management demonstrate their perseverance and caliber.

It is reassuring to see that the automotive industry's trust in TomTom is stronger than ever, thanks to the landmark partnership with Hyundai and the long-standing partnership with Stellantis.

TomTom takes today's increasing focus on ESG (environment, social and governance) sustainability seriously. We support the Management Board's identified key ESG themes that will guide TomTom's responsible business journey in the coming years to ensure that our growth ambitions align with our ESG commitments.

The Supervisory Board is pleased with the appointments of Marili 't Hooft-Bolle and Gemma Postlethwaite in 2022, further strengthening the board's composition. Their extensive experience in subscription-based services platforms, and SaaS commerce are providing important and valuable contributions to the Supervisory Board and TomTom.

We express our gratitude to TomTom's shareholders and customers for their continued trust in the company and its management. Furthermore, we want to thank all stakeholders, employees, and the Management Board for their hard work and commitment to the company.

DERK HAANK

Chair of the Supervisory Board

SUPERVISORY BOARD MEMBERS

TomTom's Supervisory Board consists of five members. Biographies of the members of the Supervisory Board, as well as the information on the members as prescribed by the Corporate Governance Code (Code), can be found in the Supervisory Board section, which also provides details of the Supervisory Board's committees and its members. All current members are independent within the meaning of best practice provisions 2.1.7 through 2.1.9 of the Code.

MEETINGS AND ATTENDANCE

All formal Supervisory Board meetings were held in-person in Amsterdam, but allowed for hybrid attendance. Once per quarter the Supervisory Board had its regular meeting to review the quarter in detail and to be provided with an operational update by the Management Board. The Supervisory Board also met regularly through conference calls to discuss financial updates and recent developments within the company. The Management Board members attended all those meetings either in full or in part. The physical Supervisory Board members accomplished a nearly 100% attendance rate.

	SB formal meetings[1]	SB update calls	AC	RemCo	SelCo
Derk Haank[2]	5/5	5/6	0/1	4/4	4/4
Jack de Kreij	5/5	6/6	5/5		
Michael Rhodin	5/5	5/6	5/5		
Marili 't Hooft-Bolle[3]	3/3	2/3		1/2	1/2
Gemma Postlethwaite[4]	2/2	1/1	2/2		
Jacqueline Tammenoms Bakker[5]	2/2	1/1		2/2	2/2
Hala Zeine[5]	1/2	1/1	1/2		

1 Attendance is presented as the number of meetings attended out of the number of meetings eligible to be attended.
2 Derk Haank temporarily joined the Audit Committee replacing Hala Zeine
3 First appointed on 24 June 2022.
4 First appointed on 1 October 2022.
5 Stepped down on 14 April 2022.

All members had adequate time available for their Supervisory Board duties, as demonstrated by their availability for ad hoc calls, prompt responses to emails, diligent meeting preparation and active participation in meeting discussions.

Meeting agendas were prepared through consultation with the Chair, the Management Board and the Company Secretary. In addition to regular meetings, the Supervisory Board Chair had regular contact with TomTom's CEO. Further and outside the regular meeting frequency, Supervisory Board members held informal consultations with members of the Management Board, senior management and employees, to remain closely informed about the business.

Supervisory Board meetings are preceded by committee meetings. The committees' Chairs work closely together with senior management and conduct regular meetings to set agendas and prepare relevant information for the committee meetings.

STRATEGIC OVERSIGHT

The Supervisory Board devoted considerable time to reviewing TomTom's strategy and progress in the execution thereof. Regular discussions were held with the Management Board on the strategic priorities of the Location Technology business. During these sessions, the Supervisory Board ensured that the Management Board's ideas were challenged and tested in order to reach decisions that would underpin the company's strategy.

The Supervisory Board paid special attention to the implementation of the new TomTom Maps Platform, Overture, the execution of the realignment of the Maps organization and the ESG strategy, KPIs and targets, as well as the impact of the macroeconomic circumstances on the company's people, operations, financial performance and strategy.

Ample time was spent reviewing the constantly changing technology landscape within which TomTom operates as well as the impact thereof on the company's strategy, including the framework for cyber security.

Each quarter, updates were provided to the Supervisory Board on market trends and the impact thereof on the company's strategic priorities. The Supervisory Board also discussed and assessed TomTom's position in the competitive landscape. The Supervisory Board engaged an external expert in the automotive industry to obtain an outside-in perspective of industry trends and developments.

The Audit Committee kept the Supervisory Board informed of the company's strategic, financial, legal and compliance, and operational risks, as well as the actions taken, and internal control and management systems in place, to manage these risks.

Business review and financial oversight

The Management Board regularly updated the Supervisory Board on commercial opportunities, deals, and partnerships. Every quarter, reports were provided by senior management that outlined the developments, achievements, challenges and opportunities in each market segment, HR and our technology department.

The Supervisory Board was frequently updated on the progress made within our mapmaking and technologies, and the positioning and traction of these technology components in the marketplace. The establishment of the commercial organization was also a topic on which the Supervisory Board was frequently updated.

The company's financial results and cash flows were presented and closely supervised throughout the year. The impact of the macroeconomic developments and the Management Board's assessment thereof played an important role in this year's supervision. The level of investment in the company's core technologies were thoroughly assessed every quarter. The Supervisory Board reviewed and approved the budget for 2023.

Every quarter, the Supervisory Board was updated on the company's Investor Relations activities, such as share price developments, analysts' research and communication with shareholders. The quarterly updates and the press releases regarding the full- and half-year results were all reviewed and approved by the Supervisory Board.

The Supervisory Board reviewed the progress of the ESG strategy, KPI and target setting, every quarter.

Culture and engagement

To stay in touch with the TomTom culture, dynamics and operational challenges, the Supervisory Board continued to meet talent throughout the company. Quarterly sessions were organized to facilitate a ‘meet and greet’ between the members of the SelCo and selected talent to allow for a an open and transparent dialogue on relevant matters.

The Supervisory Board and the Dutch Works Council held four constructive and transparent meetings.

The Supervisory Board was regularly updated on the company’s governance and organizational structure.

Succession planning

The Supervisory Board discussed its rotation schedule and succession planning. In anticipation of the expiration of the second term of Jacqueline Tammenoms Bakker, and since Hala Zeine was required to step down from the Supervisory Board due to her role as Managing Director at Blackstone at the AGM 2022, the Supervisory Board progressed with proper succession planning. On 24 June 2022, Marili ‘t Hooft-Bolle (effective immediately) and Gemma Postlethwaite (effective as of 1 October 2022) were appointed as Supervisory Board Members of TomTom.

Ample time was spent with the Management Board on the yearly talent review of senior management within TomTom, including succession planning.

Corporate responsibility

An update was provided on the company’s progress on its Corporate Responsibility program, including the company's efforts in organizing and setting its ESG strategy and commitments. More information can be found in the Our Impact chapter.

REMUNERATION

The remuneration of the members of the Supervisory Board, the additional remuneration of the Chair and the members of its committees, is determined by the General Meeting, last amended in 2020. For more information, see the Remuneration Report.

EVALUATION

The Supervisory Board and its committees engaged with a third-party advisor to assess its function, the functioning of its individual members, committees and the functioning of the Management Board and its members.

In preparation for these discussions, the members of the Supervisory Board and Management Board provided feedback through interviews performed by an external adviser resulting in an evaluation report. This report has been discussed by the full Supervisory Board, without the presence of the Management Board, during a meeting hosted by the external adviser. The outcome and improvement points determined during this evaluation session, were shared with the Management Board.

Topics which were discussed were each members’ role perception, the composition, gender diversity and expertise of the Supervisory Board, its effectiveness, its dynamics with the Management Board and succession planning. The succession planning of the Management Board, (perceived) conflict of interest events and stakeholder management were also topics being addressed and discussed in the evaluation session.

The outcome was discussed among the Supervisory Board members in an evaluation session. It was determined that the Supervisory Board operates efficiently and performs well, and the committees' duties are carried out diligently and effectively. The Supervisory Board is being informed properly, timely and transparently by the Management Board, and the boards dynamics are considered balanced, constructive and open. The Supervisory Board appreciated the time spent on technology developments, the commercial strategy, and the in-depth sessions on products and engineering. The Supervisory Board will continue its approach in 2023.

In principle, the Supervisory Board engages with a third party to assess its functioning every three years, the next time in 2025. The Management Board evaluates its own functioning annually. The CEO shares the outcome hereof with the Chair of the Supervisory Board.

AUDIT COMMITTEE

Meetings and attendance

The AC met each quarter throughout 2022. Four meetings were held prior to the publication of the quarterly financial results. The AC further held one additional formal meeting in relation to the audit tender process.

The meetings had an overall attendance rate of 87%. All meetings were attended in full by the CFO and the Head of Corporate Accounting and Internal Audit. Next to the regular AC meetings, the AC had several clarification calls on specific topics.

The other members of the Management Board attended the meetings as required. For instance, when group risks and internal controls were discussed.

The external auditor attended each of the quarterly AC meetings in full to report on its audit plan, quarterly procedures, management letter and the long form auditor's report. The AC and the external auditor also met separately, without the Management Board present, in order to facilitate free and open discussions on other relevant topics such as quality of risk assessments and the collaboration with the Management Board and the company.

Other heads of departments (e.g., Business Finance, Financial Shared Service Center, Investor Relations, IT, Legal and Compliance, Group Control, Sustainability, Privacy and Security, Tax, and Treasury) were invited when the AC deemed it necessary and appropriate.

Financial oversight

The AC assisted the Supervisory Board in its responsibility to oversee the system of internal control and risk management, the effectiveness of the internal auditors, the company’s financing, financial statements and financial reporting process.

In relation to the external auditor, the AC monitored its performance and the effectiveness of the external audit process, as well as its independence. The AC also lead the audit tender process on behalf of the Supervisory Board.

A core task of the AC was to extensively review the financial reports before consideration by the full Supervisory Board.

Throughout the year, the AC monitored and reviewed the quarterly financial results and full-year financial statements as presented under IFRS (as adopted by the EU and in accordance with Part 9 of Book 2 of the Dutch Civil Code), including the respective disclosures prior to their release. Guidance to the financial markets was also discussed. Special attention was paid to revenue recognition including the deferred revenue position as well as unbilled receivables, the impairment review of goodwill and other intangibles, and the operational and financial implications of geopolitical issues. Other areas of attention were significant estimates, the global tax position and the status of legal claims and proceedings.

Non-financial oversight

During 2022, the outcome of the ESG materiality assessment has been discussed with the AC during an in-depth session. The AC also assessed the company's ESG reporting and verified the accuracy and reliability of our ESG disclosures. Next, the AC reviewed our roadmap in relation to CSRD reporting and the steps we will take over 2023 and 2024.

The AC also discussed topics related to cybersecurity (and the ISO27001 certification), TomTom's third-party cloud platforms and new financial system implementations.

Monitoring of internal controls

During all quarterly meetings, the AC was updated on the company's management reporting, the maintenance and effectiveness of the system of internal controls, and risk management relating to strategic, financial, operational, commercial, tax, control and compliance matters. The company monitors its internal controls through a systematic approach supported by tools, a risk management process and the Internal Audit team. The Head of Internal Audit reports functionally to the AC and administratively to the CFO.

Policy and compliance oversight

The AC discussed items including the company's policies on financing, cash and foreign exchange management. The AC discussed the status of ongoing tax audits, tax risk management, tax transparency, and the tax strategy/policy.

Regular updates were received by the AC on TomTom's compliance programs (including fraud and whistleblower reporting). The AC was provided with quarterly updates on the company's ongoing effort to maintain the appropriate level of a risk-based information security management program. Time was also dedicated to the Compliance Management Framework.

Effectiveness review

The effectiveness of the AC was reviewed as part of the 2022 overall evaluation of the Supervisory Board which confirmed that the AC continues to function in line with the applicable requirements. During 2022, Jack de Kreij continued acting as financial reporting specialist. The role and functioning of the Internal Audit (IA) function, including its independence, were regularly discussed and the internal audit plan was approved by the AC. This plan considers the key risk areas of the business, cyber security and data privacy, important IT projects as well as the geographical spread of TomTom offices, including local compliance (e.g., finance, HR and tax controls) and core activities performed.

In consultation with senior management, the IA selects the areas of the business to be audited during the year. Members of the AC and the Management Board may at any time request the IA or a special consulting service firm to carry out an internal audit. A timely follow-up on the recommendations made by the IA were observed by the AC. The Head of Internal Audit reported to the AC each quarter.

External auditor

The AC approved the external audit plan, including the scope, approach, key audit matters and materiality applied. Reviews and discussions were held between the AC and the Management Board on the findings of the external auditor in its management letter and the actions taken to address the recommendations and observations made by the external auditor. The AC confirms that the discussions related to the 2022 financial year contained no significant items that should be mentioned in this report.

EY was reappointed as the external auditor by the Annual General Meeting in 2021, for a third term of three years up to and including the financial year 2023. The performance of the external auditor over 2022 was assessed through a satisfaction survey conducted among the business units and the global corporate departments. The assessment included a consideration of the quality of the audit work, the audit team's expertise and composition, the audit fee and the quality control around the audit areas of emphasis.

In May 2022, the AC started the selection process in connection with the mandatory external audit firm rotation. Our current external auditor, EY, is only required to rotate off after 2024. However, as the three-year term with our current external auditor ends in 2023, we have decided to rotate after 2023. The AC considers it prudent to start the selection process early to ensure we select a high-quality audit team. A Selection Committee was established, consisting of the members of the AC, the CFO and the Head of Corporate Accounting and Internal Audit. The Selection Committee met multiple times in 2022. At the AGM in April 2023, we will submit a proposal to appoint a new external auditor for the 2024 reporting year.

Auditor independence

The policy on External Auditor Independence prescribes that the auditor appointed by TomTom is not allowed to perform non-audit services that would i) compromise its independence, or ii) violate any other requirements or regulations affecting its external audit function. The provision of non-audit services by the external auditor that do not conflict with auditor's independence, is always subject to pre-approval by the AC.

The AC reviewed the independence of the external auditor EY, taking into account qualitative and quantitative factors, and concluded that EY had sufficient objectivity and independence to perform the external audit function. EY confirmed its independence and compliance with this policy to the AC. A summary is provided below of services performed by EY, its network affiliates and the fees earned.

(€ in thousands)	**2022**	% of total	**2021**	% of total
Audit – group	515	78%	500	89%
Audit – other entities	62	9%	61	11%
Limited assurance – ESG	80	12%	0	0%
Total fees	**657**		**561**	

SELECTION AND APPOINTMENT COMMITTEE

Meetings and attendance

The SelCo met four times throughout 2022, with an overall attendance rate of 87.5%. Each meeting was also attended by Alain De Taeye, the Chief HR Officer, representatives of HR Rewards, and the Company Secretary.

Review on HR strategic topics

Quarterly updates were provided by the Chief HR Officer on HR strategic topics like management initiatives regarding career development, management and leadership, policies, performance management, employee engagement surveys on culture, and compensation and benefits. These initiatives underpin the company's attention to talent management; to attracting, retaining and developing talent at TomTom.

The SelCo focused on the company's progress in its succession planning for key positions within the company. On a quarterly basis, the committee was updated on the recruitment status of vacant key positions.

Succession planning

Since Jacqueline Tammenoms Bakker and Hala Zeine stepped down as per the AGM 2022, the SelCo started the search for two new Supervisory Board member, while observing the Supervisory Board profile. This resulted in the nomination of and subsequent appointment of Marili 't Hooft-Bolle and Gemma Postlethwaite on 24 June 2022.

Culture and engagement

The SelCo spent ample time on the outcome of the two Glint surveys conducted in 2022 on the company culture and employee engagement. The SelCo met frequently with works councils and employees and enabled an open and transparent dialogue.

Environmental, Social and Governance

The SelCo considered the ESG aspects relevant for the company, including, but not limited to, the required training and education, required skill sets of board members, and diversity and inclusion.

REMUNERATION COMMITTEE

Meetings and attendance

The RemCo met four times in the course of 2022, with an overall attendance rate of 87,5%. Each meeting was also attended by Alain De Taeye, representatives of HR Rewards, the Chief HR Officer and the Company Secretary.

Scenario analysis and pay ratio

A scenario analysis was carried out to evaluate the variable components of the remuneration packages of the Management Board members. The RemCo reviewed the pay ratio.

Variable remuneration

At the beginning of 2022, the RemCo proposed, and the Supervisory Board approved, in addition to the financial performance metrics used in previous year (Location Technology revenue and free cash flow weighted at 40% each) to add a non-financial metric (employee engagement score weighted at 20%) to the 2022 short-term incentive (STI) plan. The RemCo regularly reviewed the Management Board members' progress against those metrics. The RemCo also proposed the allocation of RSUs in April 2022, which subsequently was approved by the Supervisory Board.

The deliberations underlying the decisions made regarding the Short-Term Incentives and the Long-Term Incentives are described in the Remuneration Report.

Stakeholder engagement

At the Annual General Meeting in April 2022, a positive advisory vote was cast for the 2021 Remuneration Report. The RemCo evaluated and considered the feedback received from stakeholders during the Annual General Meeting and defined actions. It continued to have an open dialogue with Eumedion, VEB and ISS in 2022. The response to this feedback is included in the Remuneration Report.

2022 Remuneration Report

For a full outline of the Remuneration Policy, its application in 2022 and outlook for 2023, reference is made to the 2022 Remuneration Report.

The Remuneration Report forms an integral part of the Supervisory Board report and is prepared in accordance with the requirements as laid down in the Dutch Civil Code and best practice provision 3.4.1 of the Code. The Supervisory Board has approved the Remuneration Report.

FINANCIAL STATEMENTS FOR 2022

TomTom's annual financial statements for 2022, prepared by the Management Board, have been audited by EY. The financial statements, independent auditor's report and management letter of the external auditor were discussed extensively with the auditors by the Audit Committee in the presence of the Management Board, and by the full Supervisory Board with the Management Board.

The Supervisory Board believes the financial statements for 2022 of TomTom N.V. meet all requirements for correctness and transparency. The Supervisory Board has approved the financial statements for 2022. All members of the Supervisory Board and members of the Management Board have signed the financial statements for 2022 pursuant to the statutory obligations under article 2:101 (2) of the DCC.

The Supervisory Board recommends to the General Meeting to adopt the financial statements for 2022, and requests that the General Meeting discharges the Management Board members' responsibility for the conduct of business in 2022 and the Supervisory Board members' supervision in 2022. The Annual Report for 2022 is available at the company's offices on request and on the company's website.

The Supervisory Board would like to thank TomTom's stakeholders for their trust in the company and its management and express its appreciation to all employees and the Management Board for the continued dedication and commitment to the company.

Amsterdam, 3 February 2023

The Supervisory Board

DERK HAANK
JACK DE KREIJ
MICHAEL RHODIN
MARILI 'T HOOFT-BOLLE
GEMMA POSTLETHWAITE

Letter from the RemCo Chair

Dear Stakeholder,

On behalf of the Remuneration Committee, I am pleased to present the 2022 Remuneration Report. The report provides a detailed explanation of TomTom's Management and Supervisory Board's remuneration policies alongside with an overview of how they were implemented in 2022.

I was honored to take over the chair from Jacqueline Tammenoms Bakker after my appointment on 24 June 2022. It is a great opportunity to join TomTom at such a pivotal moment in its history. I am excited to contribute my experience as well my personal perspectives to the suite of valuable opinions in TomTom's Remuneration Committee. I am looking forward to further assessing our current methods against the market and aligning the organizational purpose with the voices of our stakeholders.

Our Remuneration Policy establishes a company-wide framework for results-driven remuneration that is supportive of TomTom's strategic objectives, operational and financial results, and the creation of long-term value for all stakeholders. It is designed to attract and retain senior talent, as well as to provide fair, competitive, and responsible remuneration in a straightforward and transparent manner.

The Policy reflects the following principles:

- Alignment with, and incentivizing behavior towards, the achievement of TomTom's vision and strategy and the creation of long-term value;
- Alignment of pay structures throughout TomTom;
- Competitive with companies with whom we compete for talent;
- Consideration of stakeholders' perspectives and society needs; and
- Aspiration to live up to the highest standards of good corporate governance and enhanced transparency.

2022 context and performance

Despite that macroeconomic uncertainties and inflationary pressures have an impact on global car production as well as our cost levels, we are proud to see that TomTom showed resilience in 2022.

The competition for talent and candidates' financial expectations continued to put substantial pressure on pay. In order to drive TomTom's new strategic direction, we made significant investments in new and existing leadership roles to ensure delivery of future value. This resulted in an exceptionally high number of new executives joining TomTom in 2022.

ESG commitments

We conduct business responsibly. We continued to deliver on key commitments related to Environmental, Social, and Governance (ESG) programs in 2022. We are pleased to announce that, as a result of our ongoing engagement with our stakeholders, as well as the Company's long-standing belief in the importance of an ESG framework, the Supervisory Board, after discussions with the Management Board, decided to add an ESG-related performance criteria to the Management Board's Short-Term Incentive program in 2022. This addition, we believe, is a demonstrable reflection of TomTom's ambitions to link financial results with our societal responsibility.

Future outlook

In 2022, we propose no changes to the Remuneration Policies. However, we would like to point out that the Management Board's variable pay level is below the benchmark. Additionally, we continue to see the growing importance of our LTI program in attracting and retaining new technology talent at levels below Management Board. As a result, the disparity in variable pay levels between the Management Board and senior leadership continues to narrow year over year. The Remuneration Committee observes that total compensation, including LTI targets, is lower than our desired market position and therefore deviates from the current Remuneration Policy. While we will make no changes or adjustments this year, we will conduct a market benchmark to reassess the gaps next year, thereby acknowledging changes may be inevitable in the coming years.

Following the foregoing considerations, we reiterate our firm belief that our LTI element in the form of RSUs allows the Management Board to focus on the company's strategic objectives and long-term value creation, and thus ensures the best alignment of the Management Board's remuneration with the long-term interests of stakeholders.

I am looking forward to share my insights and perspectives around TomTom's 2022 Remuneration Report and the applicability outcome at the AGM in 2023.

On behalf of the Remuneration Committee,

MARILI 'T HOOFT-BOLLE
Chair of the Remuneration Committee

Continually enhancing the transparency of our remuneration

REMUNERATION AT A GLANCE

FIXED PAY AND BENEFITS

Attracts, engages, and retains Board Members to deliver on TomTom's strategic objectives

Base salary*

€521	€429	€434
Harold Goddijn	Taco Titulaer	Alain De Taeye
CEO	CFO	Board Member

Positioned at a median market level of peer group benchmark (conducted at least every three years).

Reviewed annually considering market environment and any planned adjustments for other employees.

Pension % of base salary

waived	20%	20%
CEO	CFO	Board Member

Benefits by Management Board

Typically items such as medical insurance, death and disability insurance and car allowances, officers' liability insurance coverage

* € in thousands

SHORT-TERM INCENTIVE

Contributes to TomTom's short-term financial and non-financial performance objectives

Target % of base salary

80%	64%	64%
CEO	CFO	Board Member

Maximum % of base salary

120%	96%	96%
CEO	CFO	Board Member

2022 bonus results

117%	117%	117%
CEO	CFO	Board Member

2022 bonus as a % of base salary

93%	75%	75%
CEO	CFO	Board Member

2022 bonus amount*

€487	€320	€325
CEO	CFO	Board Member

Targets

Location Technology Revenue (40%)
Free cash flow (40%)
Employee Engagement Score (20%)

* € in thousands

LONG-TERM INCENTIVE PLAN

Aligns Board Members' objectives with TomTom's long-term growth strategy and stakeholders' interests

Target % of base salary

140%	100%	100%
CEO	CFO	Board Member

Grant 2022 RSU value at grant date*

€730	€429	€434
CEO	CFO	Board Member

RSUs were introduced in 2019. No grant of stock options to Management Board since 2018

RSUs are subject to a three-year vesting period and a two-year holding period. Vesting is conditional upon employment only

Actual grant levels do not deviate from target unless underpin conditions are not met

Shareholding

Target levels, % of base salary at 31 December 2022

3x	2x	2x
CEO	CFO	Board Member

Number of times base salary at 31 December 2022

192x	0.4x	5x
CEO	CFO	Board Member

* € in thousands. Value of the 2022 grant is equal to the number of RSUs granted in 2022 x share price at grant date.

REMUNERATION OF THE MANAGEMENT BOARD

The Supervisory Board ensures that the policy and its implementation are linked to the company's strategic priorities and decides how to reward the successful delivery of the company's strategy by the Management Board.

Our strategy balances growth objectives, financial stability and investments to position TomTom competitively in the evolving field of location technologies. The remuneration of Management Board members is intended to encourage behaviors that drive the generation of both short-term results to ensure ongoing operational improvement and financial stability, and long-term value by pursuing growth and partnership opportunities through our location technologies and innovative services.

INTERNAL ALIGNMENT

The Remuneration Committee reviews the alignment of pay structures throughout the company by considering the consistency in the approach to setting remuneration components, performing a scenario analysis and evaluating the pay ratio.

Each individual Management Board member shares their view of their own remuneration package with the Chair of the Remuneration Committee at least once per year. The feedback is shared with the other Remuneration Committee member, who together consider all feedback when discussing and evaluating the Remuneration Policy, including its components and outlook.

Scenario analysis

A scenario analysis of the possible outcomes of the variable components and the impact on the Management Board members' remuneration is conducted annually to minimize the risk that the performance criteria lead to inappropriate outcomes.

The effect of different performance scenarios on the level and composition of remuneration was analyzed and the outcome was taken into consideration by the Supervisory Board when reviewing the Management Board members' remuneration. These scenarios include minimum (0%), target (100%) and maximum (150%) variable pay achievement and share price decrease of 20%, no change to the TomTom share price, and a share price increase of 20%. Under all scenarios (minimum, target, and maximum performance levels), the Supervisory Board considered that the range of potential remuneration is within outcomes that are appropriate for that level of performance.

Pay ratio

The pay ratio reflects the average total compensation of the total global employee workforce, relative to the total remuneration package of the CEO and the total Management Board. Social security is excluded from the measure of compensation.

APPLICATION AND OUTCOME

This calculation of the pay ratio has resulted in the following outcome:

Pay ratio[1]	2018	2019	2020	2021	2022
CEO	28.9	27.1	20.1	22.7	23.3
Management Board	22.8	22.2	17.0	19.0	19.3

[1] Excluding the cost of social security.

Annually, TomTom reviews local competitive dynamics and the livable wage in each of our operating locations. If needed, adjustments are made to ensure employees compensation are at market and above livable wage levels as part of TomTom's efforts to be a good employer. The outcomes of these reviews contribute to our pay ratio.

The decrease of the pay ratio in 2020 was caused by the investments made in employees' salaries in the company's key markets, in combination with a zero bonus payout for the Management Board members.

Even though the Management Board bonus payout, as an absolute number, is higher than the average bonus payout for employees in 2022, the pay ratio only slightly increased. This is mainly the result of the substantial pressure on employee compensation packages.

The Supervisory Board considers TomTom's pay ratio to be at a low end. The current level is acceptable, but is requiring continuous attention.

EXTERNAL ALIGNMENT

At TomTom, talent is key to the delivery of our vision and strategy. It is therefore imperative that our remuneration is competitive with the companies with whom we compete for talent and consideration is given to the international markets in which we compete for that talent.

Peer group and benchmark

In principle, the remuneration is benchmarked with a peer group every three years and reviewed annually. This helps to determine the overall competitiveness of our Management Board remuneration and gives insights into relevant competitive markets. The last benchmark was performed in 2020. In the years where no benchmark is performed, such as in 2022, the Supervisory Board considers the appropriateness of any changes to the base salary based on the market environment as well as on the average salary adjustments for our employees in The Netherlands. The next benchmark is planned for 2023. In preparation of that benchmark, a review will be performed on the peer group to ensure relevance and appropriateness within the industry.

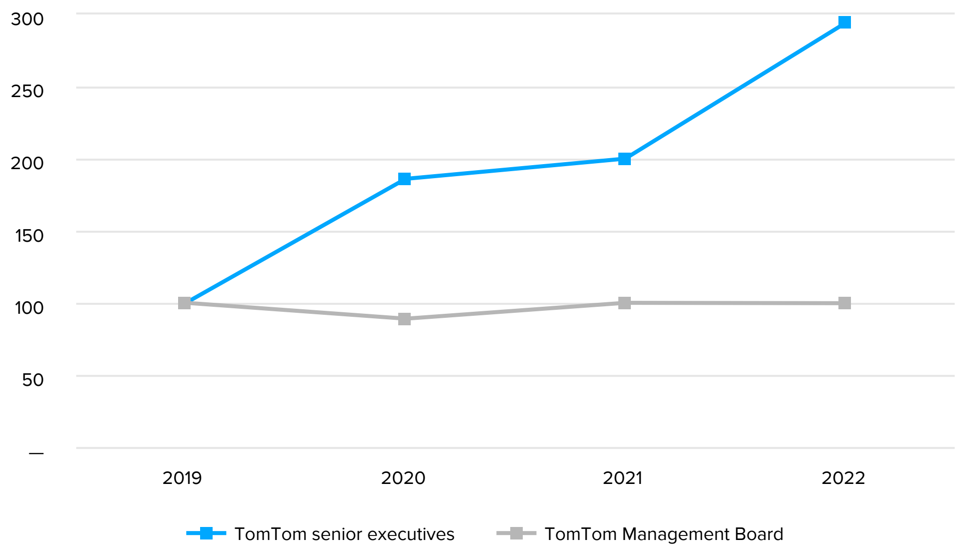
The 2020 benchmark showed that Management Board total remuneration levels are below the median of the reference group, with the difference largely stemming from relatively low Long-Term Incentives.

TomTom Executives and potential hires

To realize our strategic objectives, TomTom hired more executives than previous years in 2022. During unprecedented market circumstances, we witnessed the competition for talent and candidate's financial expectations growing exponentially. We experienced a market trend whereby the Long-Term Incentive became more and more a significant part of senior management remuneration packages. In addition, we also have targeted tech talent from other major tech companies, renowned for offering large Long-Term Incentive packages. In order to attract and retain the talent we need to execute the company's strategy, TomTom increased its investment in RSU allocation for the levels below the Management Board for the third year in a row.

Consequently, while an average RSU grant value per average TomTom executive tripled since 2019, the average grant value for Management Board has remained at the same level. The gap in Long-Term Incentives variable pay between the Management Board and senior executives continues to decrease year over year. This is a topic which requires continued vigilance.

The development of average RSU grant value[1] (based on share price at grant date) of TomTom executives (~60 employees) and Management Board



[1] Indexed, with average RSU grant value in 2019 set at 100.

Conclusions

The Supervisory Board deems that the Management Board's remuneration package requires further attention. Although the Supervisory Board did not take any actions in relation to a relatively low Long-Term Incentive this year, they recognize that changes might be inevitable in the upcoming future.

This conclusion is drawn based on both internal and external benchmarks and the low pay ratio levels, combined with the outcomes of the Management Board's benchmark in 2020. Additionally, in the case of the CEO, the base salary remains under the median market level. Further, the remuneration required to attract and retain senior talent continues to confirm the insight that the Long-Term Incentive levels for the Management Board are below median.

OVERVIEW OF REMUNERATION

Below follows a detailed overview of the Management Board Remuneration Policy, its application in 2022 and the outcome of variable pay targets. The table below is an overview of the actual remuneration of the Management Board in 2022:

		Fixed				Variable			
€ in thousands	Year	Base salary	Fringe benefits	Pension[1]	Other items[2]	Short-term incentive	Long-term incentive[3]	Total remuneration[4]	Ratio of fixed to variable remuneration
Harold Goddijn	**2022**	521	1	—	9	487	677	**1,695**	31% / 69%
	2021	503	1	—	9	191	661	1,365	38% / 62%
Taco Titulaer	**2022**	429	2	86	9	320	398	**1,244**	42% / 58%
	2021	414	2	84	9	126	383	1,018	50% / 50%
Alain De Taeye	**2022**	434	22	87	9	325	403	**1,280**	43% / 57%
	2021	419	22	84	9	128	393	1,055	51% / 49%

1 Gross pension allowance is determined as 20% of base salary minus the employer's contribution to the pension plan as per 1 January. Taco Titulaer's total pension contribution slightly exceeded 20% of his base salary in 2021 due to a change in his employer contribution percentage based on age brackets.
2 Other items includes social security.
3 Expenses recognized for stock compensation awards are determined in accordance with IFRS 2 and do not represent the amounts paid or payable to Management Board members. For additional information about the stock compensation plans, including employee plans, refer to note 9 Stock compensation in the consolidated financial statements.
4 Remuneration of the Management Board is directly paid by TomTom N.V. and not allocated to any of its subsidiaries.

BASE SALARY

The Supervisory Board, upon the recommendation of the Remuneration Committee, determines the base salary for each of the members of the Management Board. Benchmark data from peer group companies is used as a guide to the competitiveness of the base salary. The internal ratio to total remuneration levels within the company is also considered to ensure alignment throughout the company.

The Supervisory Board considers the appropriateness of any changes based on the market environment. Unless otherwise determined by the Supervisory Board, base salary levels are increased annually in line with the expected average annual increase in the fixed salary of the employees of the company based in the Netherlands.

Fringe benefits

The Management Board members receive remuneration for items such as medical insurance, death and disability insurance and car allowances. They also benefit from Directors' and officers' liability insurance coverage. These benefits are in line with market practice. The company does not provide loans, advanced payments or guarantees to members of the Management Board.

Pension

The company's pension plan is a Defined Contribution plan with age defined contribution percentages and a salary cap at €114,866 in 2022. Employee contribution is fixed at 6.1% of pensionable salary.

Pension can be received through contributions to the company's plan, as a gross pension allowance, or a combination thereof. Members may elect to waive their pension rights.

Pension contributions for the Management Board are capped at 20% of gross annual base salary.

APPLICATION AND OUTCOME

In 2022, the Management Board members' salaries were assessed against the adjustments for other employees and were adjusted by 3.66% in line with market movement for employees in the Netherlands.

Harold Goddijn opted to waive his pension rights. Taco Titulaer's pension is received as a combination of gross pension allowance and contributions to the company pension plan. Alain De Taeye receives a gross pension allowance. Reference is made to the overview of actual remuneration for pension amounts paid in 2022.

SHORT-TERM INCENTIVE

Management Board members participate in the short-term, annual incentive plan. The annual incentive has an at-target payout level of 80% of base salary for the CEO and 64% of base salary for other members of the Management Board.

On an annual basis, at the beginning of the year, the Supervisory Board determines the performance criteria (financial, non-financial and/or other quantitative/qualitative criteria) for the Management Board based on the company's strategic agenda and sets challenging yet realistic target levels for each performance criteria, all in accordance with the Management Board remuneration policy.

The performance criteria provide the framework for employee incentive schemes which are cascaded down by the Management Board to the rest of the company.

Once targets are set, they do not change during the year. Performance is reviewed each quarter and the final assessment against the targets, with any potential payout occurring during the first quarter of the next financial year. A minimum level of performance must be achieved before any payment under the plan will be made and payout is capped at an outstanding level of performance, known as the maximum.

The performance assessment under the short-term incentive plan is based on an evaluation of the past financial year. To determine the performance versus targets, the reported results will be assessed and, in case required, adjusted for exceptional items.

The Remuneration Committee investigates, deliberates and determines the annual incentive of each Management Board member. The Supervisory Board assesses whether the outcome of the calculated payout is justified by the overall business performance and considers its fairness in light of provision 2:135 sub 6 of the DCC. In preparation for that assessment, the Chairs of the Remuneration Committee and the Audit Committee review the final outcomes, including any quality of earnings elements and relevant aspects of operational business performance.

APPLICATION AND OUTCOME

In 2022, in addition to the financial performance criteria used in previous years, the Supervisory Board decided to add a non-financial metric to the 2022 short- term incentive plan.

The financial performance criteria for the 2022 short-term incentive plan were aligned with the financial guidance given to the financial markets. The targets reflect the importance of balancing targeted growth in key areas (Location Technology revenue) and overall profitability (free cash flow).

The revenue metric is specific to Location Technology and excludes revenue from Consumer. This metric is an indicator of the company's long-term strategic ambition in the location technology market. It reflects how our customers value our products and TomTom as a partner.

The free cash flow of the TomTom group, including the Consumer segment, is considered as an appropriate indicator for profitability. This metric reflects the emphasis on the company's financial stability and ensures that the company is well positioned for future key investments.

The non-financial performance criteria is driven by the average results of TomTom's Employee Engagement Score (EES), which is measured twice per year in April and October. The EES is also a material ESG theme as described in the Our Impact chapter.

In 2022, the performance targets, levels and relative weighting were set with a standard deviation:

Performance metric	Weighting	Minimum performance (0%)	Target 2022 (100%)	Maximum performance (150%)	Actual achievement
Location Technology revenue	40%	€380 million	€400 million	€420 million	144%
Free cash flow[1]	40%	(€35 million)	(€25 million)	(€15 million)	100%
Employee Engagement Score	20%	72	75	78	100%

1. Free cash flow is cash from operating activities minus capital expenditures.

Location Technology revenue in 2022 was €436 million, which was above the upper boundary, however we adjusted it for exceptional items such as the the impact of change in the way we identify performance obligations of subscription-based map revenue, resulting in a 144% achievement.

Our free cash flow, adjusted for among others, exceptional working capital movements and the realignment of our Maps organization as communicated in June 2022, was equal to the target of -€25 million resulting in 100% achievement.

The employee engagement score is the average of the survey held in March and November of respectively 77 and 73, resulting in a score of 75 which is equal to the target resulting in 100% achievement.

The weighted achievement on the three performance metrics result in respectively 93% award as % of base salary for the CEO and 75% for the other two board members.

The following table summarizes the performance of the Management Board and the corresponding short-term incentive award based on the assessment of the plan:

€ in thousands	Base salary	Target % of base salary	Weighted achievement performance metrics	Actual award 2022
Harold Goddijn	521	80%	117%	487 (93%)
Taco Titulaer	429	64%	117%	320 (75%)
Alain De Taeye	434	64%	117%	325 (75%)

LONG-TERM INCENTIVE

TomTom's Long-Term Incentive plan is based on restricted stock units (RSUs) which were introduced in 2019. RSUs are a simple and transparent instrument with relatively predictable grant outcomes for both recipients and shareholders. This predictability makes RSUs a superior retention instrument for senior leadership. Hence, RSUs are a common instrument in the international technology industry. Internal consistency is facilitated as RSUs are also the prevalent Long-Term Incentive plan instrument for senior leadership within TomTom.

RSUs build alignment with shareholders by enabling management and employees to build up shareholdings in the company. The three-year vesting period, conditional on continued employment, is followed by an extended two-year holding period. Vesting is not dependent on performance conditions; this does not comply with best practice provision 3.1.2 v) of the Code. The vesting of RSUs is not linked to predetermined and measurable performance criteria, because the rapidly evolving technology market makes it very difficult to identify and set meaningful long-term performance targets.

The Supervisory Board has the discretion to not award RSUs in case of exceptional market or business circumstances (performance underpin). At the time of allocation, the Remuneration Committee and Supervisory Board assess whether there are circumstances that would justify adjusting the RSU grant. In addition to the overall financial performance of the company, non-financial aspects are taken into consideration for example whether there have been any major risk management failures, reputational issues or compliance issues. Additionally, the external context and overall shareholder experience are considered.

The RSU grant target value is 140% of base salary for the CEO and 100% for the other Management Board members.

Share ownership requirements have been set to encourage further shareholding by Management Board members. The shareholding requirements for the CEO are a minimum of three times base salary, and for the other members of the Management Board the requirements are a minimum of two times base salary.

The structure of the Long-Term Incentive plans, and details of movements in grants to the Management Board, are detailed in the tables that follow. Refer to note 9 of the consolidated financial statements for further information about the stock compensation plans, including employee plans.

APPLICATION AND OUTCOME

The annual grants are set as a percentage of the fixed salary of the Management Board and the following table provides an overview of the RSU allocation in 2022:

	Base salary (€ in thousands)		Target % of gross annual salary		Value in (€) at grant date[1]		Number of RSU granted
Harold Goddijn	521	X	140 %	/	7.73	=	94,393
Taco Titulaer	429	X	100 %	/	7.73	=	55,456
Alain De Taeye	434	X	100 %	/	7.73	=	56,186

[1] The number of RSUs granted is determined on the basis of the average of the closing prices of TomTom N.V. shares in the 60 days preceding the grant date.

When considering the RSU allocation in April 2022, the Supervisory Board carefully considered the overall performance of the company, the performance of the Management Board and the impact of market conditions.

Specifically, with reference to the performance underpin condition of exceptional market or business circumstances, the Remuneration Committee examined in detail whether the market conditions were such that the award should be adjusted, whether there was any factor in the performance of the company that would threaten the long-term value creation, whether the long-term strategy developed in line with expectations, and looked at the correlation between the rewards of MB and the rest of the company. TomTom continued to have a strong cash position with no debt, and the resilience to maintain its course including investments in value-creating R&D and the execution of the long-term strategy. There were also no risk management failures, reputation or compliance issues – other factors that might have been relevant. Therefore, the Remuneration Committee proposed to the Supervisory Board that there were no reasons to withhold or reduce the 2022 RSU grant, and after due consideration and evaluation the Supervisory Board approved this proposal.

DETAILS OF THE RESTRICTED STOCK UNITS OF THE MANAGEMENT BOARD

	Main plan conditions				Information regarding the reported financial year					
	Plan	Grant date	Vesting date	End of holding period[1]	Opening	Movement during the year		Closing		
					At beginning of the year	Granted	Vested	At end of the year	Subject to a holding period[1]	Market value of award at year-end (€)[2]
Harold Goddijn	RSU 2019	3-May-19	3-May-22	3-May-24	87,630	—	87,630	—	87,630	568,281
	RSU 2020	29-Apr-20	29-Apr-23	29-Apr-25	83,620	—	—	83,620	—	—
	RSU 2021	29-Apr-21	29-Apr-24	29-Apr-26	88,420	—	—	88,420	—	—
	RSU 2022	15-Apr-22	15-Apr-25	15-Apr-27	—	94,393	—	94,393	—	—
Taco Titulaer	RSU 2019	3-May-19	3-May-22	3-May-24	51,480	—	51,480	—	26,622	172,644
	RSU 2020	29-Apr-20	29-Apr-23	29-Apr-25	49,130	—	—	49,130	—	—
	RSU 2021	29-Apr-21	29-Apr-24	29-Apr-26	51,950	—	—	51,950	—	—
	RSU 2022	15-Apr-22	15-Apr-25	15-Apr-27	—	55,456	—	55,456	—	—
Alain De Taeye	RSU 2019	3-May-19	3-May-22	3-May-24	52,160	—	52,160	—	22,768	147,650
	RSU 2020	29-Apr-20	29-Apr-23	29-Apr-25	49,770	—	—	49,770	—	—
	RSU 2021	29-Apr-21	29-Apr-24	29-Apr-26	52,630	—	—	52,630	—	—
	RSU 2022	15-Apr-22	15-Apr-25	15-Apr-27	—	56,186	—	56,186	—	—
					566,790	**206,035**	**191,270**	**581,555**	**137,020**	**888,575**

1 Once vested, RSUs are subject to a two-year holding period.
2 The market value of an award at year-end is calculated using as the closing share price on 31 December 2022 of €6.49 multiplied by the number of vested outstanding units.

DETAILS OF THE STOCK OPTIONS OF THE MANAGEMENT BOARD

	Main plan conditions					Information regarding the reported financial year						
	Plan	Grant date[1]	Vesting date	Expiry date	Exercise price (€)	Opening	Movement during the year			Closing		
						At beginning of the year	Expired	Vested	Exercised	At end of the year	Outstanding and vested	Market value of award at year-end (€)[2]
Harold Goddijn	Option 2015	7-May-15	7-May-18	7-May-22	7.83	210,000	210,000	—	—	—	—	—
	Option 2016	10-May-16	10-May-19	10-May-23	7.58	112,500	—	—	—	112,500	112,500	—
	Option 2017	10-May-17	10-May-20	10-May-24	9.57	165,000	—	—	—	165,000	165,000	—
	Option 2018	2-May-18	2-May-21	2-May-25	8.13	201,500	—	—	—	201,500	201,500	—
Taco Titulaer	Option 2015	7-May-15	7-May-18	7-May-22	7.83	39,200	—	—	39,200	—	—	—
	Option 2016	10-May-16	10-May-19	10-May-23	7.58	48,500	—	—	—	48,500	48,500	—
	Option 2017	10-May-17	10-May-20	10-May-24	9.57	85,000	—	—	—	85,000	85,000	—
	Option 2018	2-May-18	2-May-21	2-May-25	8.13	102,800	—	—	—	102,800	102,800	—
Alain De Taeye	Option 2015	7-May-15	7-May-18	7-May-22	7.83	110,000	35,000	—	75,000	—	—	—
	Option 2016	10-May-16	10-May-19	10-May-23	7.58	56,500	—	—	—	56,500	56,500	—
	Option 2017	10-May-17	10-May-20	10-May-24	9.57	100,000	—	—	—	100,000	100,000	—
	Option 2018	2-May-18	2-May-21	2-May-25	8.13	120,000	—	—	—	120,000	120,000	—
						1,351,000	**245,000**	**—**	**114,200**	**991,800**	**991,800**	

1 RSUs were introduced in 2019. There has been no grant of stock options to Management Board members since 2018.
2 The market value of an award at year-end is calculated as the closing share price on 31 December 2022 of €6.49, less the strike price to be paid, multiplied by the number of vested outstanding options that are in-the-money. All options that have a strike price higher than the year-end share price are considered to be out-of-the-money on 31 December 2022 and are assumed to have no market value.

Share ownership guidelines and holdings requirement

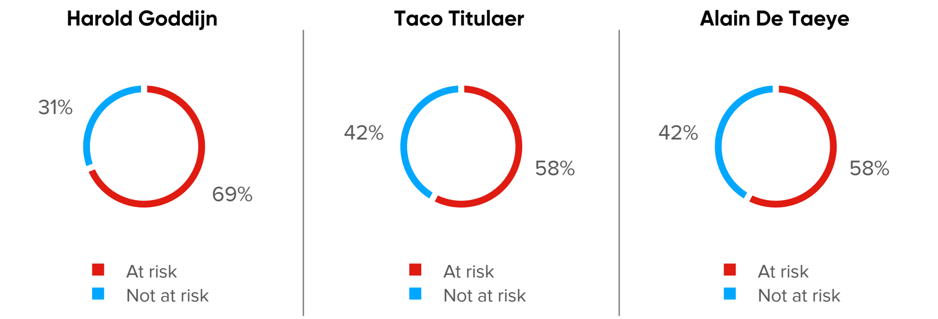
Under the TomTom share ownership guidelines, introduced as part of the policy changes in 2019, members of the Management Board must build up and own a minimum number of TomTom N.V. shares. The shareholding requirements for the CEO are a minimum of three times base salary, and for the other members of the Management Board a minimum of two times base salary. These guidelines are designed to further align the interest of the members of the Management Board with the interests of its shareholders.

Board member	Share ownership guidelines	Current shareholding (number of shares)	Current value of shares (€ in thousands)	Base salary (€ in thousands)	Number of times base salary
Harold Goddijn	3x base salary	15,411,239	99,942	521	192 x
Taco Titulaer[1]	2x base salary	26,622	173	429	0.4 x
Alain De Taeye	2x base salary	334,504	2,169	434	5 x

1 Taco Titulaer started building his share ownership position upon the first RSUs vesting in 2022.

Target compensation mix

The Remuneration Committee believes that the target compensation mix of Management Board members aligns with the long-term interests of shareholders. The chart below illustrates the target pay that is at risk for the respective Management Board member represented as percentage of the total potential compensation package designed to reward based on company performance.[1]



1. Excluding lease car allowance.

Outlook

After having considered the economic market circumstances and Dutch and European governance context, as well as stakeholders' feedback, no adjustments to the Remuneration Policy are proposed for implementation in 2023.

The base salary levels will be increased in line with the average annual increase in fixed salary of the employees of the company based in the Netherlands, as described in the Remuneration Policy, which is 8.34%.

No changes are anticipated for the 2023 short-term incentive scheme and the 2023 Long-Term Incentive scheme.

FOR MORE INFORMATION

Management Board Remuneration

COMPARATIVE INFORMATION

For the purpose of reviewing the five-year development of Management Board remuneration and company performance, the Remuneration Committee has decided to take the metrics of Location Technology revenue, group free cash flow generation and the year-end share price as appropriate measures of company performance.

The following table shows the remuneration and company performance over the last five reported years, expressed in absolutes and the delta in percentages compared with the immediate preceding year:

Management Board remuneration[1]

€ in thousands and as a % compared to previous year	2018	2019	2020	2021	2022
Harold Goddijn	1,579	1,551	1,151	1,356	1,686
YoY	14%	-2%	-26%	18%	24%
Taco Titulaer	975	1,095	852	1,009	1,234
YoY	24%	12%	-22%	18%	22%
Alain De Taeye	1182704	1172124	907104	1045524	1,270
YoY	14%	-1%	-23%	15%	22%
Total	3,736	3,819	2,910	3,411	**4,190**
YoY	**16%**	**2%**	**-24%**	**17%**	**23%**

Average remuneration[1] **per FTE**

€ in thousands and as a % compared to previous year	2018	2019	2020	2021	2022
Global employees	55	57	57	60	72
YoY	-2%	5%	—%	5%	21%

Company performance measures

€ in millions and as a % compared to previous year, unless stated otherwise	2018	2019	2020	2021	2022
Location Technology revenue	372	426	392	394	436
YoY	12%	14%	-8%	—%	11%
Free cash flow[2]	145	70	-26	24	-29
YoY	112%	-52%	-138%	192%	-224%
Share price (€)[3]	7.90	9.42	8.44	9.11	6.49
YoY	-19%	19%	-10%	8%	-29%

1 Excluding the cost of social security.
2 Free cash flow includes cash flows relating to the Telematics segment up to 31 March 2019, the effective date of sale, for 2022 the cash related to our Maps restructuring is excluded.
3 Share price as of 31 December.

In the period 2018 – 2019, the company performance showed an overall positive trend. The years 2020 and 2021 were impacted by respectively COVID-19 and global semiconductor shortages, especially impacting our Automotive revenue and free cash flow generation. The total remuneration of the Management Board developed in line with this. The remuneration per employee remained relatively stable over this period, as the change in the mix of our workforce offset the increase in remuneration for individual employees.

In 2022, the Management Board remuneration increased as a result of a higher bonus payout as further explained in the Short-Term Incentives section. The average remuneration for global employees increased as result of marked increases in employee remuneration as well as a higher bonus pay-out over 2022.

DEVIATION FROM REMUNERATION POLICY

The Remuneration Committee did not deviate from its decision-making process in relation to the implementation of the Remuneration Policy nor derogate from clauses 6 up to and including 11 of the policy. However, the outcome of the benchmark performed in 2020 indicated that the total compensation of each of the Management Board members is not in line with the objective to target total compensation around the third quartile of comparable companies.

REMUNERATION OF THE SUPERVISORY BOARD

This section provides an overview of the Remuneration Policy for TomTom's Supervisory Board. This Remuneration Policy was adopted by the General Meeting in 2020.

The objective of the Remuneration Policy for the Supervisory Board is to provide remuneration in a manner that:

- qualified and expert persons can be recruited and retained as members of the Supervisory Board with the right balance of personal skills, competences and experience required to oversee the (execution of the) company's strategy and performance;
- intends to reward Supervisory Board members for utilizing their skills and competences to the maximum extent possible to execute the tasks delegated to them including but not limited to tasks and responsibilities imposed by the Dutch Civil Code, Dutch Corporate Governance Code and the Articles of Association;
- as guiding principle, should reflect the median of the AEX pay practice for comparable roles; and
- reflects the company's size and complexity, as well as the responsibilities of the role and the time spent.

OVERVIEW OF REMUNERATION

Given the nature of the responsibilities of the Supervisory Board as an independent body, remuneration of the Supervisory Board is not tied to the performance of the company and only comprises fixed remuneration, delivered in cash.

In addition to a fixed fee, the members of the Supervisory Board are provided with a committee fee and intercontinental travel compensation. Other than the introduction of the intercontinental travel compensation in 2019, the Supervisory Board fees have not changed over the last ten years. Therefore, the Supervisory Board fees will be reassessed with the peer group benchmark in 2023. Payment of the remuneration is done in Euro. Currency conversion risks are for the account of the member of the Supervisory Board.

The rates of compensation for 2022 are as follows:

(€)	Chair	Member
Supervisory Board	50,000	40,000
Audit Committee	10,000	7,000
Remuneration Committee	7,000	4,000
Selection and Appointment Committee	7,000	4,000
Intercontinental travel allowance		3,000

Members of the Supervisory Board are not authorized to receive any payments under the company's pension or variable pay schemes or under any Long-Term Incentive plan. No shares or rights to shares were granted to a Supervisory Board member by way of remuneration. At present, none of the Supervisory Board members own any shares in the company. Members of the Supervisory Board are not entitled to any benefits upon the termination of their appointment and no loans are made to any members of the Supervisory Board.

Outlook

No adjustments to the Remuneration Policy for the Supervisory Board are proposed for implementation in 2023.

APPLICATION AND OUTCOME

The following table provides an overview of the actual remuneration of the Supervisory Board in 2022 and prior years:

(€)	2022	2021	2020	2019	2018
Derk Haank[1]	64,370	61,000	64,733	56,000	13,000
Jack de Kreij[2]	50,767	50,000	50,000	50,000	50,000
Michael Rhodin[3 4]	53,767	53,000	50,602	62,000	47,649
Marili 't Hooft-Bolle[5]	26,492	—	—	—	—
Gemma Postlethwaite[4 6]	11,750	—	—	—	—
Jacqueline Tammenoms Bakker[7]	14,733	51,000	51,000	51,000	51,000
Hala Zeine[7]	13,578	47,000	10,183	—	—
Karien van Gennip[8]	1,333	8,000	—	—	—
Previous members	—	—	12,664	74,000	108,450
Total	**236,790**	**270,000**	**239,182**	**293,000**	**270,099**

1 Derk Haank temporarily joined the Audit Committee replacing Hala Zeine, increasing his remuneration.
2 Jack de Kreij temporarily joined the RemCo replacing Jacqueline Tammenoms Bakker, increasing his remuneration.
3 Michael Rhodin temporarily joined the SelCo replacing Jacqueline Tammenoms Bakker, increasing his remuneration.
4 Michael Rhodin and Gemma Postlethwaite are eligible for intercontinental travel allowance.
5 First appointed on 24 June 2022.
6 First appointed on 1 October 2022.
7 Stepped down as per 14 April 2022.
8 Stepped down as per 10 January 2022.

FOR MORE INFORMATION

[Supervisory Board Remuneration]

STAKEHOLDER ENGAGEMENT AND GOVERNANCE

The perspectives of TomTom stakeholders and the overall social and business context are taken into consideration by the Remuneration Committee when developing and reviewing the Remuneration Policy for TomTom's Management Board and the Remuneration Policy for TomTom's Supervisory Board. The Remuneration Committee is committed to continuously improving the dialogue and transparency regarding Management Board remuneration. As with all diverse interests and perspectives, opinions will differ, but TomTom endeavors to consider as many as possible.

Works Council

Both the Management Board and the Supervisory Board have an open relationship with the Dutch Works Council. Members of the Works Council have the opportunity to raise and discuss matters, including the Remuneration Policies and its application or any other matter that requires attention, both within and outside the regular meeting schedule (bi-annually with the Supervisory Board and quarterly with management).

Shareholders

Input provided directly by shareholders and remuneration voting outcomes are always considered carefully by the Supervisory Board.

Investor organizations/proxy advisors

In 2022, the Remuneration Committee continued its engagement with representatives of several stakeholders (VEB, Eumedion) and proxy advisors (ISS) to facilitate a transparent and constructive dialogue on Management Board remuneration. The Remuneration Committee and the Supervisory Board highly appreciates these constructive and transparent dialogues.

In relation to the Remuneration Report, the recommendation were:

i) whether a non-financial performance criteria would be added to TomTom's STI (Eumedion, VEB); and

ii) explain whether TomTom intends to change the Management Board Remuneration Policy or its application in 2023 since the total compensation including LTI is below median compared to the peer group benchmark and a new strategy was announced (Eumedion, VEB).

As regards i), a non-financial metric was added to the STI in the form the Employee Engagement Score.

As regards ii), the Supervisory Board and Remuneration Committee annually review the appropriateness and the application of the Remuneration Policy, taking into account the external peer group benchmark and increasing LTI required to attract and retain senior management. In 2023, an external peer group benchmark, based on relevance and appropriateness within the industry, will be conducted for both the Management Board and the Supervisory Board. Even though no changes to – the application of – the Remuneration Policy are proposed for 2023, adjustments may be necessary in the future.

Concerns were also raised. Firstly, all three stakeholders again addressed the absence of specific performance underpin conditions for the RSUs. The Supervisory Board has made further disclosures on underpin performance considerations when assessing the LTI grant. The Supervisory Board considers that the current broad formulation of the performance underpin gives it the necessary scope to not award LTI grant if this should be inappropriate. No change is therefore foreseen.

All three stakeholders also asked whether the newly announced Maps strategy allows the identification of performance conditions in the near future. The Remuneration Committee will consider all potential developments and any amendment to the current policy will take into account all relevant business and market circumstances, including the new strategy.

Public perception

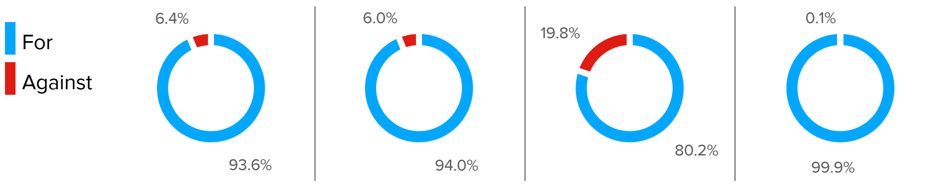
The Supervisory Board follows the societal implications of general remuneration trends and perspectives globally and locally. In general, Management Board remuneration at TomTom is not a publicly debated topic.

Shareholder Rights Directive II

This Remuneration Report aims to meet the reporting requirements defined by article 2:135b of the DCC, implementing the EU Shareholder Rights Directive II (SRD II). One of the key objectives of the SRD II is to provide greater transparency for company stakeholders. Transparency has always been important at TomTom; initiatives like the SRD II and its implementation into Dutch law are welcome.

In accordance with article 2:135a sub 2 of the DCC and article 2:145 sub 2 of the DCC, the Supervisory Board proposes for adoption the Remuneration Policy for TomTom's Management Board respectively Supervisory Board to the General Meeting of Shareholders once every four-year period, the next time at the 2024 Annual General Meeting (AGM). The decision to adopt the Remuneration Policies require at least 75% of the cast votes in favor. Our Remuneration Policy for the Management Board was approved at our 2020 AGM with 80.18% votes cast in favor. Our Remuneration Policy for the Supervisory Board was approved with 99.94% votes cast in favor.

	AGM 2022 Voting	AGM 2021 Voting	AGM 2020 Voting	AGM 2020 Voting
	Remuneration in the financial year 2021	**Remuneration in the financial year 2020**	**Adjustment of the Remuneration Policy for the Management Board**	**Adjustment of the Remuneration Policy for the Supervisory Board**
Votes	93,743,212	86,245,711	87,756,952	87,745,938



This Remuneration Report describes the process which has been followed by the Remuneration Committee in relation to the implementation of the Remuneration Policies over the given financial year, and, if applicable, any proposed revision of the Remuneration Policies.

Every year, the implementation of the Remuneration Policies, through the Remuneration Report, is put forward for an advisory vote to the AGM (in line with article 2:135b sub 2 of DCC). At our 2022 AGM, approximately 93% votes cast in favor for our 2021 Remuneration Report.

Revision and claw-back of variable pay

The claw-back provision as reflected in the Remuneration Policy is in accordance with Dutch law and forms an integral part of Management Board members' employment. The Supervisory Board can revise the amount of the variable pay to an appropriate amount if payment of the bonus would be unacceptable according to standards of reasonableness and fairness.

In addition, the Supervisory Board is entitled, at its discretion, to recover on behalf of the company any variable pay awarded on the basis of incorrect financial data or other data underlying the bonus or about the circumstances that the bonus was made subject to.

This right of recovery exists irrespective of whether the Management Board member has been responsible for the incorrect financial data or other data, or was aware or should have been aware of this incorrectness. No variable remuneration was clawed back in 2022.

Change of control

In case of a change of control, the Supervisory Board may determine that any Long-Term Incentives, granted to a Management Board member, shall be (deemed to be) vested, and exercisable if applicable, immediately prior to and conditional upon such change of control, or during such period after the change of control as the Supervisory Board may specify. Failing exercise in such change of control event, previously granted stock options will lapse.

Severance compensation

In the event that a Management Board member's employment is terminated by, or on the initiative of, the company, the Management Board member is entitled to a severance payment limited to 50% of one year's base salary, unless a higher statutory severance compensation applies.

These terms will not apply if the Management Board member's employment is terminated for any reason as set out in articles 7:677 (1) and 7:678 of the DCC. In such situations, the Management Board member will not be entitled to any severance compensation. A member of the Management Board will not be entitled to severance compensation if employment is terminated by themselves, or on their own initiative.

Creating value through sound risk management and internal control

Our success as a company depends on our ability to develop and market the right products and services and to identify and exploit the opportunities generated by our business and the markets we are in. TomTom's risk management approach is designed to identify and assess opportunities and risks as early as possible and to take appropriate measures in order to seize opportunities and limit business losses. The aim is to manage risks that pose a threat to TomTom's future and to strengthen our ability to create sustainable long-term value.

ESTABLISH A STRONG RISK MANAGEMENT ENVIRONMENT

Our risk management framework is designed to identify and address the strategic risks related to the development of new products and our core markets as well as all other risks that can impact our business like operational, people, legal and compliance, financial and ESG risks.

Assurance on the effectiveness of controls is obtained through, among others, management reviews, monitoring dashboards, self-assessments, internal audits and testing of certain aspects of our internal financial control systems.

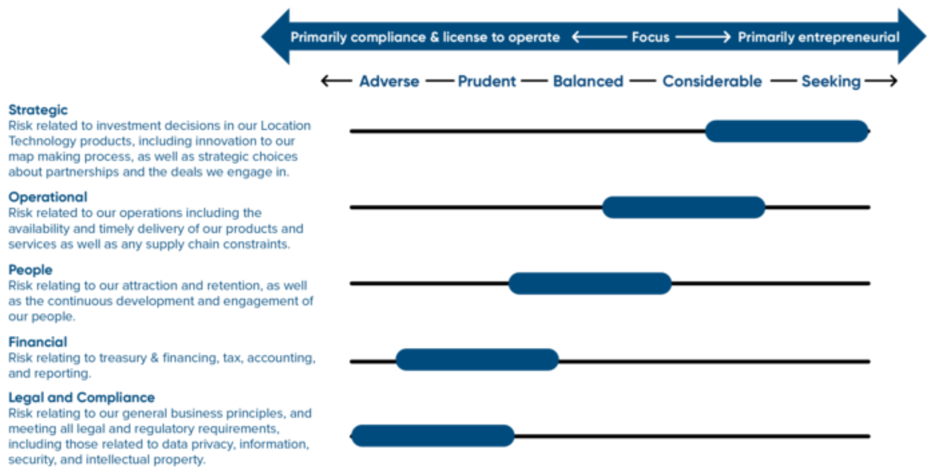
Our systems are designed to manage, rather than eliminate, the risk that we fail to achieve our business objectives and can provide reasonable, but not absolute, assurance against financial loss or material misstatements in the financial statements. The key features of our systems of Internal Control are:

- Defined lines of accountability and delegation of authority;
- Comparison reports with analysis on actuals, budgets, and forecasts;
- Assurance that the appropriate infrastructure, controls, policies, procedures, systems and people are in place throughout the business;
- Organizational design that supports business objectives and a culture that encourages open and transparent communication;
- An ESG Committee that initiates, drives and coordinates our ESG strategy development, policy setting, disclosures and planning of programs and activities in relation to our commitments;
- A Code of Conduct accessible to all staff via the intranet together with whistleblowing (Open Ears Procedure) facilities;
- Financial shared service center with a centralized Enterprise Resource Planning (ERP) environment which allows us to apply a consistent level of control throughout all regions;
- Centralized Treasury operations that manage cash balances and exposure to credit default and currency risks through Treasury policies, risk limits and monitoring procedures; and
- Strong tax compliance and correct local filings enabled by TomTom's centralized organization further supported by local advisors. Our tax controls, tax risk management, tax accounting and compliance is further supported by high levels of automation and strong IT tooling.

Reviews of the internal risk management and control systems were discussed quarterly with the Audit Committee and Supervisory Board and no major failings have been identified. Semi-annually in-control statements are submitted and signed of by senior management and discussed with the Management Board. The Management Board concluded that the systems continue to provide reasonable assurance that the financial statements do not contain material misstatements and that no material changes to the control framework were required.

DEFINE RISK APPETITE

Our willingness to assume calculated risks and uncertainties (the risk appetite) differs for each category. Our risk appetite is determined by considering the opportunity in relation to the potential threats to achieving our strategic objectives. The level of the company's risk appetite gives guidance as to what detailed level TomTom will take measures to control such uncertainties.



The risk overview table highlights the appetite and the potential impact on the group's strategic, financial, legal and compliance and operational objectives if one or more of the main risks were to materialize. Our risk assessment is done by estimating the total impact of an event given that it occurred, with a 90% confidence interval. The likelihood of a risk occurring is also disclosed. The risk impact shown relate to residual risk. This means that the risks are described after taking the risk response into consideration.

ASSESS RISKS AND RISK RESPONSE

Strategic risks and opportunities are analyzed regularly as we review the value streams of our core technologies whereby critical developments are monitored continuously over the year. This process is facilitated by our Product Office. The operational, financial, legal and ESG risks are monitored by our corporate risk management function. The corporate risk management function meets regularly with the Product Office to ensure overall alignment and information sharing.

When taking decisions, our risk management function considers its risk appetite and seeks to manage risks consistently with the risk appetite. The identified risks and mitigating actions are expanded and cascaded to specific units. Trends on impact and likelihood are monitored over the year. A single owner is assigned responsibility for each identified risk, which helps to ensure clear accountability for mitigating actions. The output from the risk management process is input to our annual budgets and longer-term planning.

REPORT ON RISKS AND RISK TRENDS

The Audit Committee and the Supervisory Board fulfill their oversight responsibilities in relation to risk reporting and trend monitoring. The group risk process and the outcome thereof as well as internal audits, external audits and management self-assessment on controls are reported to and discussed by the Audit Committee.

The following overview of the group risk profile reflects the risks that we believe are the most relevant to the achievement of our strategy, with a time horizon of at least 12 months. The sequence of risks does not reflect an order of importance, vulnerability or materiality. This overview is not exhaustive as there may be risks not yet known to us or which are currently not deemed to be material. The overview should be considered in connection with the forward-looking statements.

Category	Risk	Impact	Likelihood	Trend	Appetite
Strategic	Failure to transition to our new mapmaking platform	M	L	→	M
	Failure to grow our Location Technology business	H	M	→	H
	Reputation damage	M	M	→	L
Operational	Inability to attract, develop and retain the right talent	M	M	↓	M
	Service availability issues	H	L	→	L
	Supply chain disruption	M	M	↓	M
Legal and compliance	Information security risk	H	M	→	L
	Customer privacy and changing regulatory requirements	H	L	→	L
	Intellectual property claims	M	L	→	L
Financial	Further adverse changes in macroeconomic conditions	M	H	★	L

Legend

H	High	★	New risk
M	Medium	→	Unchanged risk
L	Low	↑	Increased risk
		↓	Decreased risk

Risk	Trend	Description	Opportunity/Response
STRATEGIC			
Failure to transition to our new mapmaking platform	→	Map content needs to be constantly updated and enhanced for changes in the environment to meet the needs of our existing and future customer base. If we are unable to develop our new TomTom Maps Platform at sufficient quality, costs, coverage and cycle times and to automate our map creation, maintenance and delivery platforms, our map-based business may be materially adversely affected.	The new TomTom Maps Platform greatly improves our mapmaking process and unlocks new markets and customers to TomTom at a reduced cost. We have invested significantly into ensuring our new TomTom Maps Platform meets the needs of our existing customers and is expected to attract new customers and markets. The transition to the new TomTom Maps Platform has Management Board oversight with clear goals and milestones. Also, TomTom is one of the founding members of Overture, a Foundation established to create an universal standard base map together with some big tech companies. As we aim to minimize our impact on the planet in developing and maintaining our map we work with our Tier-1 cloud providers and we ensure that their environmental commitments are in line with our own.
Failure to grow our Location Technology business	→	Although demand for Location Technology remains strong, we are in a market with continuously changing developments and an increasingly consolidated customer base. We might be unable to pursue new opportunities and may lose market share versus competition. Also, new map and navigation providers are entering the location technology market, which will increase the level of competition we face. If we are unsuccessful in establishing and growing a profitable business, our financial condition, operational result and liquidity may be materially adversely affected.	We have invested in positioning TomTom to address the future needs of our customers and to successfully pursue new Automotive and Enterprise opportunities. This includes strengthening our sales teams that can capture new markets and cementing our position as a leading location technology specialist. With our technological innovation, we continuously develop new product and service offerings to take advantage of opportunities in the area of location-based technologies like map technologies, food delivery, fleet and logistics, ride-hailing, EV services and intelligent speed assistance.
Reputation damage	→	All our products and services are brought to market under one brand. This leads to brand concentration risk. Brand value can be severely damaged, even by isolated incidents affecting the reputation of our business or our products and services. Unforeseen business disruptions could affect our service to customers and cause loss of, or delays in TomTom's critical business systems, our research and development work and/or product shipments. Any permanent or temporary loss of critical systems could result in reputational damage, loss of revenue and liabilities with our clients.	We review each new opportunity and monitor whether we can deliver upon the customers' expectations. Next, we employ a rigorous quality management process for our products and services before they are launched. Also, internal policies, governance teams and a mature customer service organization designed to further mitigate the risk of incidents that could result in reputation or brand damage. Lastly, we have business continuity and disaster recovery planning in place for business-critical systems and various eventualities.
OPERATIONAL			
Inability to attract, develop and retain the right talent	↓	Our markets are characterized by rapid technological change, which challenges us to sell and deliver highly competitive products and services on an ongoing basis. In order to be a market leader in our industry, we need to have a diverse group of talented people with the right skills working effectively together. We aim to employ highly talented people in our company, which enables us to create, sell and deliver highly innovative products and services to our customers. If we are unable to attract, develop and retain the right people, our ability to operate our business successfully could be significantly impaired.	Employers of choice will continue to attract the best skills. We are constantly analyzing market trends so we can adapt quickly and attract the best people in the market. In 2022 we have continued our efforts to invest in our diverse workforce and ensure strong communication and remain the employer of choice in order to attract and retain the talent we need. In our ambition to be the employer of choice in technology, our rigorous recruitment process aims to attract the best talent. Also, we continuously monitor our employee's engagement and have programs in place to retain and keep employees engaged. An important driver for engagement are the products we develop as these can have a positive impact on people lives (e.g., less traffic incidents, reduced CO_2 emissions, convenient routing).

Risk	Trend	Description	Opportunity/Response
Service availability issues	→	We provide customer-facing services which are expected to be online on a 24/7 basis. These include live traffic information, location-based services and sales via our website. To provide these services to our customers we rely on our own, as well as outsourced, information technology, telecommunications and other infrastructure systems. A significant disruption to the availability of these systems could cause interruptions in our service to customers that may cause reputational damage and could trigger contractual penalties, which could in turn, have a material adverse effect on our financial condition and results of operations.	Revenue-generation and customer-facing services are running with Tier-1 cloud providers, where we make use of the cloud provider native infrastructure resiliency such as availability zones and multi-region deployments. Any remaining on-premise network infrastructure dependencies are being addressed in consultation with our customers. In addition, we continue to invest in industry standard observability and site reliability engineering best practices to further improve the online availability of our products.
Supply chain disruption	↓	Both ourselves and our customers can be impacted by geopolitical instability and supply chain issues. Demand on international semiconductor markets is still at a high level, the supply situation for electronic chips is tense, potentially affecting the availability of semiconductor components required for vehicle production. The war in Ukraine as well as other geopolitical conflicts has increased uncertainty to many regions in which we and our customers operate. Please refer to emerging risks for more detail on the war. Should the situation continue or deteriorate even further, and significant supply bottlenecks again occur, it cannot be ruled out that this will have an adverse impact on our revenues.	TomTom is monitoring the situation and is proactively communicating with key Automotive customers and our Consumer supply chain. Our Automotive customers are monitoring the situation closely as is our Consumer management team and they work closely with their suppliers to ensure sufficient supply especially in the area of semiconductors.

LEGAL AND COMPLIANCE

Risk	Trend	Description	Opportunity/Response
Information security risk	→	Our business operations and reputation are substantially dependent on our ability to maintain confidentiality, integrity and availability of information regarding customers, employees, suppliers, proprietary technologies, intellectual property and business processes. Additionally, the volume and sophistication of information security ('cybersecurity') threats as well as regulatory requirements continue to grow. The inadvertent disclosure of confidential information, unauthorized access to our systems and networks, defective products and sanctions potentially imposed by regulators could adversely affect our business, our reputation and could have a material adverse effect on our financial conditions, results of operations and liquidity.	We have in place a global information security organization including a policy and control framework that governs and defines our procedures for mitigating risks in our engineering, operations and products using a risk-based approach, based on ISO information security standards. We consistently improve, tighten, and invest in our cyber-defense capabilities, including our ESG commitment to continuous training for our developers and staff, to keep pace with the evolving threats facing our company.
Customer privacy and changing regulatory requirements	→	We provide location-based products and services to our customers. As there is growing public awareness and increased scrutiny by regulatory authorities, this means that compliance with privacy regulations and customer expectations is increasingly important in maintaining our competitive position. Next to this, various governments across the globe have adopted or are in the process of adopting new privacy regulations. Law enforcement and intelligence services bodies in other countries that request direct access to data held by businesses remain important for companies operating at an international scale. Depending on the country and cultural background, this could raise additional concerns regarding the use of our products and services. Our reputation and brand may suffer and regulatory sanctions may be imposed if we fail to comply with privacy laws and regulations or otherwise fail to meet our customers' expectations in relation to privacy matters or any other regulations.	Inherent in the design and operations of our products and services, we apply 'privacy by design' to ensure that our Privacy Principles, as well as obligations from applicable privacy laws and regulations, are structurally adhered to in the design of our products and services and throughout our operations. We see opportunities in the future based on customers placing increase value on privacy by design and data protection philosophies. Refer to Privacy and Data Governance section for more information. Next to that, we have invested further in our Compliance Management Framework and strengthened ownership as well as reporting and communication thereof.

Risk	Trend	Description	Opportunity/Response
Intellectual property claims	➔	We rely on a combination of trademarks, trade names, patents, confidentiality and non-disclosure agreements, copyrights and design rights, to defend and protect our trade secrets and the intellectual property in our expanding range of products. We may be faced with claims that we have infringed in the intellectual property rights or patents of others. Should claims be asserted against us, these may result in us being ordered to pay substantial damages or forced to stop or delay the development, manufacturing or sale of infringing products. Any such outcome could have a material adverse effect on our financial condition, results of operations and liquidity. Furthermore, even if we were to prevail, any litigation could be costly and time-consuming.	We have a dedicated Intellectual Property team responsible for the protection of our products and services against unauthorized use by third parties. By investing in R&D and obtaining and enforcing intellectual property rights, such as patents and trademarks (see How we create value section), we can prevent the competition from reproducing our unique products and services. Over time, we have developed a reputation for strongly defending our position in all intellectual property litigation, including against non-practicing entities (NPEs).
FINANCIAL			
Further adverse changes in macroeconomic conditions	★	Adverse changes to economic conditions could result in continued inflation, reduced customer spending or increased foreign exchange risk. High inflation can have a significant impact on TomTom due to our long-term contracts with limited possibilities to increase pricing terms towards our customers to offset our increased cost due to wage inflation. If macroeconomic conditions continue to contract, economic activity could slow down, leading to lower consumer spending and lower cash flow generation for TomTom.	We have a relatively resilient business model with a strong Automotive backlog. Our offers are competitive in the markets in which we operate. We are supporting our business customers' efficiencies through our innovative products. We have no debt and a strong cash position which allows us time to adjust our pricing and cost base. We manage foreign currency transaction risk mainly through forward contracts to cover forecasted net exposures.

RISKS REDUCED IN 2022

The COVID-19 outbreak and its continuous disruptive effects on society and the economy may negatively affect our Automotive and Consumer businesses. The impact in the current year decreased in comparison to prior years, as governments rolled out their vaccination programs, and companies and society as a whole have adapted, Though the impact has decreased, we will remain monitoring the COVID-19 pandemic and any further negative impact on our future revenue, supply chain, cash flow from operations, and the valuation of assets as well as our workforce.

We have also removed the risk "Failure to recover from a disaster". This risk was deemed generic and is therefore incorporated in the other risks as disclosed above.

EMERGING RISKS

The war in Ukraine has impacted economies on a global scale. This contributed to growing inflation, an energy crisis, supply chain shortages, and higher interest rates in most parts of the world, among other things. We have examined the impact of growing energy bills, supply chain bottlenecks, and significant inflation on our own business operations, including facility expenses, supplier costs, and the impact on our customers' industries. We concluded that the impact in performance of the business is not material for the 2022 financial period.

We also assessed the implications of rising interest rates on the valuation of our assets and liabilities (including goodwill) on our balance sheet. This assessment did not result in any impairment or other material changes in the valuation of our assets and liabilities except for a decrease in our defined benefit pension obligation. More details on our goodwill impairment test can be found in note 13. Due to the unpredictable nature of this risk, we are actively monitoring the economic developments as the severity of the impact on our customers and our own business operations remain uncertain for the future.

SUSTAINABILITY RISKS AND OPPORTUNITIES

TomTom assessed climate risk, including the risks associated with our ESG commitments and the physical impact of climate change. We are committed to conducting sustainable business practices and are continually increasing our efforts to identify and minimize our impact on the environment. We feel that given the nature of our business, climate risk is currently not one of our most material matters in relation to achieving our strategy over the next few years. Where relevant, we have incorporated ESG-related matters in the above risk overview, especially in relation to our people and information security risk. Next to that, there could be climate related opportunities as some of our products and services (e.g., traffic, EV routing range and ADAS) are enablers for others to reduce emission, as further described in Our Impact chapter. We will continue to assess the climate risk and opportunities on an ongoing basis.

Consistent and transparent reporting

We engage and maintain an open dialogue with investors and analysts, and have an extensive communication program, which includes the General Meeting, roadshows, investor conferences, webcasts and in-house meetings. Related events are reported and regularly updated on our Investor Relations website.

TomTom strictly adheres to applicable rules and legislation on fair disclosure. Our goal is to inform investors about the company and its management, strategy, goals and expectations in a transparent, timely and consistent manner. Contact with (potential) shareholders and analysts are at all times conducted in compliance with applicable rules and regulations, in particular those concerning market abuse, inside information and equal treatment.

For more information, please see Policy on bilateral and other contacts with shareholders on TomTom's corporate website.

The company's Investor Relations website contains up-to-date financial information about TomTom. Investors and analysts are encouraged to visit the Investor Relations website regularly for detailed and up-to-date coverage of the share price, shareholder meetings, quarterly and annual results, press releases, presentations, webcasts and investor relations-related events.

CLOSED PERIOD

During a closed period prior to the publication of the quarterly results, we do not engage in discussions with analysts, investors and financial journalists or make presentations at investor conferences.

FINANCIAL CALENDAR 2023

Our financial calendar can be found on our website. The scheduled dates for earnings releases are as follows:

Date	Event
3 February 2023	Publication Q4 and FY 2022 results
14 April 2023	Publication Q1 2023 results
14 April 2023	Annual General Meeting
17 July 2023	Publication Q2 2023 results
13 October 2023	Publication Q3 2023 results

DIVIDEND POLICY

TomTom's dividend policy is not to distribute dividends. The company gives priority to increasing technology investments to strengthen its capabilities and competitive position. The company believes that allocating its cash resources to these priorities serves shareholders' interests and the company's objective of long-term value creation.

SHAREHOLDER STRUCTURE

An overview of the company's shareholders with a holding (voting rights) of 3% of the issued capital or more can be found in the Corporate Governance section. The following table shows the company's ordinary shareholder structure as at 31 December 2022:

	# shares	% of total
Harold Goddijn	15,411,239	11.6%
Corinne Vigreux	14,977,416	11.3%
Peter-Frans Pauwels	14,702,531	11.1%
Pieter Geelen	14,140,030	10.7%
Total founders	**59,231,216**	**44.7%**
Free float	69,161,075	52.2%
Treasury shares[1]	3,974,381	3.0%
Total shares outstanding	**132,366,672**	**100%**

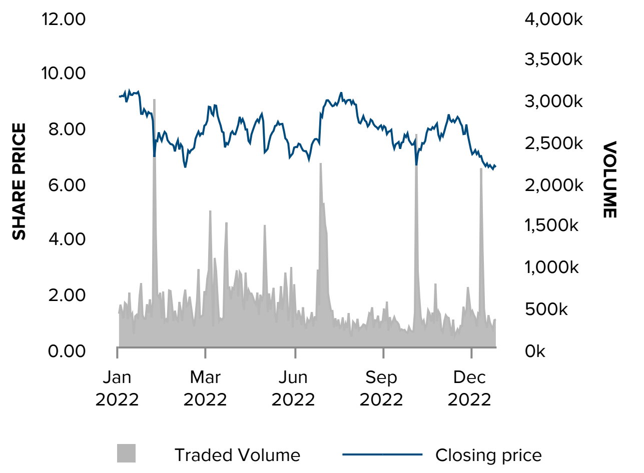
[1] Treasury shares are related to the share buyback program completed in 2021.

LISTING

TomTom N.V. shares are traded on Euronext Amsterdam in the Netherlands under the symbol TOM2. The company is included in the Amsterdam Small Cap Index (AScX).

SHARE PRICE

The graph below shows TomTom's share price development during 2022.



Management Board statements

The Management Board report (consisting of pages 3 up to and including 42, page 65 up to and including 72, and page 126 up to and including 132), and such parts of the financial statements as referred to in the Management Board report, comprise the 'Bestuursverslag' within the meaning of article 2:391 of the DCC.

IN CONTROL AND RESPONSIBILITY STATEMENT

The Management Board states, in accordance with best practice provision 1.4.3 of the Code, that:

- the Management Board report provides sufficient insight into any important deficiencies in the effectiveness of the internal risk management and control systems that may have been detected during the 2022 financial year and no major failings have been detected;
- the risk management and control systems provide a reasonable assurance that the 2022 financial statements do not contain any errors of material importance. Details are set out in the Risk management and control section;
- based on TomTom's current state of affairs, it is justified that the financial reporting is prepared on a going concern basis. This is based upon the strong cash position and the expected medium- and long-term free cash flow generation of the company and the risks facing the company. Commentary on the company's cash flow, liquidity and financial position is set out in the Financial Review. The financial risk management is set out in note 27 of our consolidated financial statements; and
- the Management Board report discloses all material risks and uncertainties that are relevant regarding the expectation as to the continuity of TomTom for the 12-month period after the date of issue of this Management Board report.

The Risk management and control section of the Management Board report provides a clear substantiation of the above mentioned statement.

With reference to section 5:25c sub 2c of the Financial Markets Supervision Act, the Management Board states that, to the best of its knowledge:

- The annual financial statements give a true and fair view of the assets, liabilities, financial position and loss of the company and the undertakings included in the consolidation taken as a whole; and
- The Management Board report provides a fair view of the development and performance of the business and the position of the company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that the company faces.

CORPORATE GOVERNANCE STATEMENT

The information required to be included in this Corporate Governance Statement as described in articles 3, 3a, 3b and 3d of the Dutch Decree on the contents of Directors' Report (the Decree) are incorporated in the Management Board Report and the Supervisory Board Report sections.

The main characteristics of the company's internal risk management measures and control systems connected to its financial reporting process, as required by article 3a sub a of the Decree, are described in the In Control and Responsibility Statement.

OUR COMPLIANCE WITH THE CODE

TomTom complies with all the relevant best practice provisions of the Code, with the exception of best practice provisions 3.1.2 (v) and 4.3.3. The nature of and reasons for these deviations are explained below.

Best Practice Provision 3.1.2 (v)

Best practice provision 3.1.2 (v) provides that the variable remuneration component shall be linked to measurable performance criteria determined in advance, which shall be predominantly long-term in character.

TomTom deviates from best practice provision 3.1.2 (v) to the extent that it does not link its Long-Term Incentive to predefined performance criteria. All RSUs granted under the Management Board Restricted Stock Unit Plan shall be granted conditional to continued employment of the Management Board members only. These grants have a vesting period of three years, with a subsequent two-year shareholding requirement. In addition, share ownership requirements has been set to encourage future shareholding for all Management Board members. The Supervisory Board reserves the right to decide not to award RSUs in a given year in case of exceptional market or business circumstances. The reason for this deviation is that it has proven difficult to set long-term performance targets in our rapidly evolving, dynamic market environment.

Best Practice Provision 4.3.3

Best practice provision 4.3.3 provides that the General Meeting may pass a resolution to cancel the binding nature of a nomination for the appointment of a member of the Management Board or the Supervisory Board and/or a resolution to dismiss a member of the Management Board or of the Supervisory Board by an absolute majority of the votes cast. It may be provided that this majority should represent a given proportion of the issued capital, the proportion of which may not exceed one-third.

Our Articles of Association provide that a binding nomination for the appointment of Management Board or Supervisory Board members may only be set aside by a resolution of the General Meeting passed with a two-thirds majority representing more than 50% of its issued share capital. The same provision applies to any resolution to dismiss a member of the Management Board or of the Supervisory Board.

The reason for this deviation is that the company believes that maintaining continuity in its Management Board and Supervisory Board is critical for delivering long-term value creation.

The company would like to protect its stakeholders against a sudden change in management by maintaining the qualified majority and voting quorum requirement, which is consistent with Dutch law.

INFORMATION PURSUANT TO THE DECREE ARTICLE 10 TAKEOVER DIRECTIVE

The Management Board states that all information, which must be disclosed pursuant to the Decree Article 10 Takeover Directive ('Besluit artikel 10 overnamerichtlijn'), is included in the Corporate Governance section, the Supervisory Board report and the notes referred to herein, to the extent that it is applicable to TomTom.

NON-FINANCIAL STATEMENT

Directive 2014/95/EU on the disclosure of non-financial information requires companies to publish a non-financial statement. The relevant provision has been implemented into Dutch law through the Decree disclosure on non-financial information ('Besluit bekendmaking niet-financiële informatie'). The information regarding environmental, anti-corruption and bribery, social and employee matters, and respect for human rights, as required by this Decree, is incorporated in the Our Impact chapter, and in the Non-financial reporting section as included in the Supplementary information chapter.

Amsterdam, 3 February 2023

The Management Board

HAROLD GODDIJN
Chief Executive Officer
TACO TITULAER
Chief Financial Officer
ALAIN DE TAEYE
Member of the Management Board

FINANCIALS

70mph
speed
1.1%
gradient
570ft
radius
1.7%
gradient
180ft
radius

FINANCIALS

Consolidated financial statements

Consolidated statement of income

For the year ended 31 December

(€ in thousands)	Notes	2022	2021
Revenue	6	536,343	506,926
Cost of sales	7	86,619	99,821
Gross profit		**449,724**	**407,105**
Research and development expenses - Geographic data		205,760	219,808
Research and development expenses - Application layer		171,504	146,209
Sales and marketing expenses		50,353	45,181
General and administrative expenses		119,720	89,098
Total operating expenses	8-11	**547,337**	**500,296**
Operating result		**-97,613**	**-93,191**
Interest income		390	325
Interest expense	29	-1,183	-1,716
Other financial result	29	3,611	7,720
Financial result		**2,818**	**6,329**
Result before tax		**-94,795**	**-86,862**
Income tax expense	12	-7,940	-7,791
Net result		**-102,735**	**-94,653**
Attributable to equity holders of the parent		**-102,735**	**-94,653**
Earnings per share (€)	26		
Basic		-0.80	-0.74
Diluted		-0.80	-0.74

Consolidated statement of comprehensive income

For the year ended 31 December

(€ in thousands)	Notes	2022	2021
Net result		**-102,735**	**-94,653**
Items that will not be reclassified to profit or loss			
Actuarial gain on defined benefit plans[1]	8	5,719	1,062
Fair value remeasurement of financial instruments[1]		-3,090	6,847
Items that may be subsequently reclassified to profit or loss			
Currency translation differences		2,406	4,794
Other comprehensive income for the period		**5,035**	**12,703**
Total comprehensive loss for the period		**-97,700**	**-81,950**
Attributable to equity holders of the parent		**-97,700**	**-81,950**

[1] The items in the statement above are presented net of tax expense of €1.0 million for 2022 (2021: €2.7 million).

Consolidated balance sheet

As at 31 December

(€ in thousands)	Notes	2022	2021
Goodwill	13	192,294	192,294
Other intangible assets	14	42,917	70,478
Property, plant and equipment	15	21,645	26,241
Lease assets	16	35,815	31,488
Other contract-related assets	6	23,737	18,769
Other investments	17,28	13,814	17,982
Deferred tax assets	12	1,158	4,115
Total non-current assets		**331,380**	**361,367**
Inventories	18	14,660	19,585
Trade receivables	19	65,743	56,179
Unbilled receivables	6	48,298	67,311
Other contract-related assets	6	6,890	5,049
Other receivables and prepayments	20-21	36,803	25,429
Fixed-term deposits	22	171,000	150,000
Cash and cash equivalents	22	132,729	205,820
Total current assets		**476,123**	**529,373**
Total assets		**807,503**	**890,740**
Equity attributable to equity holders of the parent	25	199,606	282,723
Total equity		**199,606**	**282,723**
Lease liabilities	16	26,654	20,004
Deferred tax liability	12	2,404	3,934
Provisions	30	18,237	33,484
Deferred revenue	6	263,043	259,628
Total non-current liabilities		**310,338**	**317,050**
Trade payables	23	6,102	14,022
Lease liabilities	16	11,071	13,335
Provisions	30	11,020	6,537
Deferred revenue	6	175,607	181,099
Other contract-related liabilities	6	18,921	19,782
Income taxes	12	3,133	1,273
Accruals and other liabilities	24	71,705	54,919
Total current liabilities		**297,559**	**290,967**
Total equity and liabilities		**807,503**	**890,740**

The notes on pages 79 to 113 are an integral part of these consolidated financial statements.

Consolidated statement of cash flows

For the year ended 31 December

(€ in thousands)	Notes	2022	2021
Operating result		**-97,613**	**-93,191**
Foreign exchange adjustments		6,373	7,904
Depreciation and amortization	10	56,672	73,671
Change in provisions	30	-2,472	-7,474
Equity-settled stock compensation expenses	9	10,532	5,934
Other non-cash movement		-69	-46
Changes in working capital:			
Change in inventories		5,086	8,772
Change in receivables and prepayments		-9,164	17,883
Change in liabilities (excluding provisions)[1]		5,124	32,289
Cash flow from operations		**-25,531**	**45,742**
Interest received	29	389	326
Interest paid	29	-1,183	-1,716
Corporate income taxes paid	12	-5,083	-7,569
Cash flow from operating activities		**-31,408**	**36,783**
Investments in intangible assets	14	-5,271	0
Investments in property, plant and equipment	15	-4,895	-13,274
Dividends received	17	392	366
Change in fixed-term deposits		-21,000	-7,070
Cash flow from investing activities		**-30,774**	**-19,978**
Payment of lease liabilities	16	-14,369	-14,785
Proceeds on issue of ordinary shares	25	4,051	4,561
Purchase of treasury shares	25	0	-33,431
Cash flow from financing activities		**-10,318**	**-43,655**
Net increase/(decrease) in cash and cash equivalents		**-72,500**	**-26,850**
Cash and cash equivalents at the beginning of period		205,820	231,520
Exchange rate changes on cash balances held in foreign currencies		-591	1,150
Cash and cash equivalents at the end of period	22	**132,729**	**205,820**

[1] Includes movements in the non-current portion of deferred revenue presented under non-current liabilities.

Consolidated statement of changes in equity

For the year ended 31 December

(€ in thousands)	Notes	Share capital	Share premium	Treasury shares	Other reserves[1]	Retained earnings	Shareholders' equity
Balance as at 1 January 2021		26,473	338,124	-14,312	127,598	-90,267	387,616
COMPREHENSIVE INCOME							
Result for the year		0	0	0	0	-94,653	-94,653
OTHER COMPREHENSIVE INCOME							
Currency translation differences[2]		0	0	0	4,794	0	4,794
Actuarial gain on defined benefit plans	8	0	0	0	0	1,062	1,062
Fair value remeasurement of financial instruments	17	0	0	0	6,847	0	6,847
Total other comprehensive income		**0**	**0**	**0**	**11,641**	**1,062**	**12,703**
Total comprehensive income		**0**	**0**	**0**	**11,641**	**-93,591**	**-81,950**
TRANSACTIONS WITH OWNERS							
Stock compensation expenses	9	0	0	0	5,927	0	5,927
Repurchase of shares	25	0	0	-33,431	0	0	-33,431
Reissuance of shares	25	0	0	4,561	0	0	4,561
OTHER MOVEMENTS							
Transfers between reserves		0	0	2,436	-45,994	43,558	0
Balance as at 31 December 2021		**26,473**	**338,124**	**-40,746**	**99,172**	**-140,300**	**282,723**
COMPREHENSIVE INCOME							
Result for the year		0	0	0	0	-102,735	-102,735
Other comprehensive income							
Currency translation differences[2]		0	0	0	2,406	0	2,406
Actuarial gain on defined benefit plans	8	0	0	0	0	5,719	5,719
Fair value remeasurement of financial instruments	17	0	0	0	-3,090	0	-3,090
Total other comprehensive income		**0**	**0**	**0**	**-684**	**5,719**	**5,035**
Total comprehensive income		**0**	**0**	**0**	**-684**	**-97,016**	**-97,700**
TRANSACTIONS WITH OWNERS							
Stock compensation expenses	9	0	0	0	10,532	0	10,532
Reissuance of shares	25	0	0	4,051	0	0	4,051
OTHER MOVEMENTS							
Transfers between reserves		0	0	6,213	-36,203	29,990	0
Balance as at 31 December 2022		**26,473**	**338,124**	**-30,482**	**72,817**	**-207,326**	**199,606**

[1] Other reserves include Legal reserve, Currency translation reserve and the Stock compensation reserve.

[2] Currency translation differences arise on the translation of foreign currencies relating to foreign operations.

The notes on pages 79 to 113 are an integral part of these consolidated financial statements.

FINANCIALS

Consolidated financial statements

The notes are grouped into six sections. The notes contain the relevant financial information as well as a description of accounting policy applied for the topic of the individual notes.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Section 1

General information and basis of reporting

Section 2

Results of the year

Section 3

Non-current assets and investments

Section 4

Working capital

Section 5

Financing, financial risk management and financial instruments

Section 6

Other disclosures

General information and basis of reporting

This section introduces the basis of preparation and the general accounting policies applied to the consolidated financial statements as a whole, as well as a summary of the areas that involve significant judgments and estimates.

1 GENERAL

TomTom N.V. (the company) is a public limited company with its statutory seat and headquarters in Amsterdam, the Netherlands. The registered address of the company is De Ruijterkade 154, 1011 AC, Amsterdam. The company is registered under trade registration number of 34224566 in the Chamber of Commerce in Amsterdam. The activities of the company include the development and sale of navigation and location-based products and services which includes maps, traffic, navigation software, and portable navigation devices (PNDs).

The consolidated financial statements comprise the company and its subsidiaries (the group).

The financial statements have been prepared by the Management Board and were authorized for issue on 3 February 2023. The financial statements will be submitted for approval to the General Meeting on 14 April 2023.

2 BASIS OF PREPARATION

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and IFRIC interpretations as adopted by the European Union as effective from 1 January 2022 and with Part 9 of Book 2 of the Dutch Civil Code. The financial statements have been prepared on the historical cost basis, except for financial instruments (including derivatives) classified at fair value through profit or loss or other comprehensive income, which are stated at fair value. Income and expenses are accounted for on an accrual basis.

Going concern

In preparing the financial statements, management has applied going concern assumption based on its assessment of the company's ability to continue as a going concern. In making such assessment management has considered the current environment in which the group operates and the expectation of the company's future performance taking into account the order backlog and the strong cash position of the group.

Summary of significant accounting policies

The general accounting policies applied to the consolidated financial statements as a whole are described below, while other significant accounting policies related to specific items are described under the relevant note. The description of accounting policies in the notes forms an integral part of the description of the accounting policies in this section. Unless otherwise stated, these policies have been consistently applied to all the years presented.

New accounting standards and developments

To the extent relevant, all IFRS standards, interpretations and amendments that were in issue and effective from 1 January 2022 have been adopted by the group. All other standards and interpretations or amendments with future effective dates have not been early adopted. These standards and interpretations had no and will not have material impact to the group.

Basis of consolidation

The consolidated financial statements include the financial statements of the company and entities controlled either directly, or indirectly, by the company.

Control is achieved when the parent is exposed to, or has rights to, variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the group.

All intercompany transactions and balances, including unrealized gains and losses, arising from transactions between group companies, are eliminated.

Foreign currencies

The company’s primary activities are denominated in EUR. Accordingly, EUR is the company’s functional currency and the group’s presentation currency. Items included in the financial information of individual entities in the group are measured using the individual entity’s functional currency, which is the currency of the primary economic environment in which the entity operates.

Transactions and balances

Foreign currency transactions are translated to the functional currency using the exchange rates at transaction date. At each balance sheet date, monetary items denominated in foreign currencies are translated at the rates prevailing at each balance sheet date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized under ‘Other financial result’ in the income statement, except for gains and losses that arise from intercompany borrowings that form part of net investment in subsidiaries which are recognized in ‘Other comprehensive income’.

Group companies and foreign operations

For consolidation purposes, the assets and liabilities of entities that have a functional currency other than the group’s presentation currency are translated at the closing rate at balance sheet date, whereas the income statement is translated at the average exchange rate for the period. Translation differences arising thereon are recognized in ‘Other comprehensive income’.

Income statement

The group presents its statement of income based on functional categories of expenses. Research and development expenses are disclosed as two categories: geographic data and application layer. Sales and marketing expenses are combined as one category and general and administrative expenses are presented as a separate category. Included in general and administrative costs are amounts of other business income received which are incidental in nature (if applicable).

Cash flow statement

Cash flow statements are prepared using the indirect method. Cash flows from derivative instruments are classified consistently with the nature of the instruments. Dividend income is presented under investing activities.

3 ACCOUNTING ESTIMATES

The preparation of these consolidated financial statements requires management to make certain assumptions, estimates and judgments that affect the reported amounts of assets, liabilities and disclosure of contingent assets and liabilities, as of the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ from those estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of revision and the future periods if the revision affects both current and future periods.

Significant estimates

The table below presents the areas that involve a higher degree of judgment or areas where assumptions and estimates are significant to the financial statements:

	Note
Revenue-related estimates	6
Income tax	12
Impairment of non-financial assets	13 - 15
Internally generated intangible assets	14
Provisions and contingent assets/liabilities	30 - 31

Detailed explanations of the degree of judgment and assumptions used are included under each of the respective sections in the notes to the financial statements as referenced above.

In making judgment and assumptions we have considered climate-related matters and concluded that such matters have no material impact on our business and the assumptions impacting the financial statements.

4 WAR IN UKRAINE AND ECONOMIC UNCERTAINTIES

The war in Ukraine has impacted economies on a global scale. The effects are wide ranging, including amongst others, rising inflation, the energy crisis in Europe, pressure on supply chains and increased interest rates in most parts of the world.

We have considered to what extent rising energy bills, supply chain constraints, economic sanctions on Russia and significant inflation impact our business operations, including facility and other costs and their impact on our customers’ industry. Based on this, the group has concluded that the impact on the performance of the business is not material for the 2022 financial period.

We also assessed the implications of rising interest rates on the valuation of our assets and liabilities (including goodwill). This assessment resulted in an increase in the discount rate used in the goodwill impairment testing as disclosed in note 13. In addition the increased discount rate also resulted in a decrease in our defined benefit pension obligation, as disclosed in note 8. Other than this, the assessment did not result in any impairment or other material changes in the valuation of other assets and liabilities.

Due to the unpredictable nature of this risk, we are actively monitoring the economic developments as the severity of the impact on our customers and our own business operations remain uncertain for the future.

Results of the year

This section presents the notes related to items in the income statement (except for financial income and expenses) and disclosure of operating segments. If applicable, relevant notes on balance sheet items, which also relate to items in the income statement, are also presented in this section. A detailed description of the results for the year is provided in the financial and operational review sections in the Management Board report.

5 SEGMENT REPORTING

The operating segments are identified and reported on the basis of internal reports about components of the group that are regularly reviewed by the Management Board to assess the performance of the segments.

The group's internal management reporting is structured primarily based on the nature of the business of each segment and comprise two distinct segments: Location Technology and Consumer. Location Technology is engaged in developing and selling location-based application components such as maps, services (e.g. traffic and travel information) and navigation software to customers in different market segments. Consumer generates revenue mainly from the sale of portable navigation devices and mobile applications.

Management assesses the performance of segments based on the measures of revenue, operating result (EBIT), whereby the EBIT measure includes allocations of expenses from supporting functions within the group. Such allocations have been determined based on relevant measures that reflect the level of benefits of these functions to each of the operating segments. The effects of non-recurring items such as group initiated restructurings are excluded from management's measurement basis. Interest income and expenses and tax are not allocated to the segments.

There is no measure of segment (non-current) assets and/or liabilities provided to the Management Board.

(€ in thousands)	2022	2021
Location Technology	446,309	404,372
External customers	436,402	393,972
Inter-segment	9,907	10,400
Consumer	99,941	112,954
Eliminations	-9,907	-10,400
Total revenue	**536,343**	**506,926**
The EBIT of each segment is as follows:		
Location Technology	-71,240	-105,158
Consumer	6,466	17,702
Total segment operating result (segment EBIT)	**-64,774**	**-87,456**
The EBITDA of each segment is as follows:		
Location Technology	-15,581	-32,578
Consumer	7,403	18,748
Total segment EBITDA[1]	**-8,178**	**-13,830**

[1] The difference between EBIT and EBITDA for each segment is explained by the depreciation and amortization charge of the respective segment. A reconciliation of the segment performance measure (EBIT) to the group's result before tax is provided below.

(€ in thousands)	2022	2021
Total segment EBIT	-64,774	-87,456
Unallocated expenses[1]	-32,839	-5,735
Financial result	2,818	6,329
Result before tax	**-94,795**	**-86,862**

[1] Unallocated expenses in 2022 include an impact of €26 million in non-recurring restructuring charges in Location Technology.

6 REVENUE FROM CONTRACTS WITH CUSTOMERS

Group revenue consists solely of revenue from contracts with customers. For disaggregation of revenue by operating segments, reference is made to note 5 'Segment reporting'. The table below shows a disaggregation of revenue by types of products and services, timing of revenue recognition and by geographical areas:

(€ in thousands)	2022	2021
External revenue by products and services		
License revenue	299,491	261,212
Rendering of services	166,003	168,426
Sale of goods	70,849	77,288
Total revenue	**536,343**	**506,926**
Revenue by timing of revenue recognition		
Goods and services transferred at a point in time	97,567	98,166
Goods and services transferred over time	438,776	408,760
Total revenue	**536,343**	**506,926**
External revenue by geographical areas		
Europe[1]	316,169	295,687
North America[2]	137,125	134,425
Rest of world	83,049	76,814
Total revenue	**536,343**	**506,926**

[1] Germany and France accounted for respectively 14% and 14% of 2022 revenue (17% and, 16% of 2021 revenue).
[2] The North American revenue in 2022 and in 2021 was generated mainly in the United States of America.

The geographical split of the group's revenue is based on the location of the customers, while the split of revenue from licensing arrangements is based on the coverage of the group's geographical map data and other content.

Total revenue generated in the Netherlands in 2022 amounted to €10 million (2021: €10 million). Within Location Technology, there is one customer that had revenue between 10%-15% of total group revenue in 2022.

CONTRACT BALANCES

Contract-related asset balances consist of trade receivables, unbilled receivables, and other contract related assets. Details of other contract related assets are shown below:

(€ in thousands)	2022	2021
Capitalized contract costs	29,591	23,200
Other deferred cost of sales	1,036	618
Other contract-related assets	**30,627**	**23,818**
Other contract-related assets are disclosed as:		
Current	6,890	5,049
Non-current	23,737	18,769

Unbilled receivables is presented net of expected credit losses of €0.2 million (2021: €0.3 million). For details regarding the balance of trade receivables and expected credit losses refer to note 19.

Revenue of €181 million (2021: €164 million) was recognized from amounts included in contract liabilities at the beginning of the year. An amount of €15 million (2021: €15 million) was recognized relating to performance obligations satisfied in previous years.

Contract-related liability balances are as follows:

(€ in thousands)	2022	2021
Deferred revenue	438,650	440,727
Other contract-related liabilities[1]	18,921	19,782
Total contract-related liabilities	**457,571**	**460,509**
Of which:		
Current	194,528	200,881
Non-current	263,043	259,628

[1] Other contract-related liabilities comprise of items such as accrued rebates, sales return allowance and stock protection accrual.

Deferred revenue amounted to €439 million at the end of the year (2021: €441 million). Deferred revenue per segment is as follows:

(€ in thousands)	2022	2021
Location Technology	417,974	415,261
Consumer	20,676	25,466
Total deferred revenue	**438,650**	**440,727**

At balance sheet date, €407 million (2021: €378 million) of Location Technology's deferred revenue related to Automotive and €10 million (2021: €37 million) related to Enterprise.

Automotive and Consumer deferred revenue is mostly driven by upfront payments by our customers for longer-term (multiple years) content and service deliveries (e.g., traffic and map updates). The Enterprise deferred revenue is mostly related to some customers who prepay each year for their annual license to our content.

PERFORMANCE OBLIGATIONS

In Automotive, payments for the licenses and services are typically in the form of fixed royalty payments for each car produced by the Automotive customer during the duration of the program which may typically range from 3–7 years (royalty period). The obligation to deliver map updates and services may extend for a number of years beyond the royalty period. Navigation software is typically delivered at the start date of the customer program.

For Enterprise, the payments typically take the form of (annual) license fees/guaranteed royalties for larger customers or usage-based royalty payments for smaller customers. The payments typically correspond with the period the group is obliged to provide the license and/or services.

In Consumer, both B2B and end-customers make payments for (bundled) products and services which may require TomTom to deliver map updates and/or traffic services during the (estimated) lifetime of a hardware product or subscription period. Payments for such products and/or services are generally received at the time the products are delivered (subject to applicable payment term for B2B customers) or when services are activated.

As at 31 December 2022, the total of the transaction price allocated to the group's (partially) unfulfilled performance obligations is estimated at €1.4 billion (2021: €1.3 billion), of which €439 million (2021: €441 million) is reflected in deferred revenue. This total excludes the (estimated) transaction price of:

- contracts where revenue recognition is based on right to invoice (as allowed by the practical expedient); and
- license and/or service contracts where each individual future activation is treated as a separate (subscription) contract.

The estimated future timing of revenue recognition for the above mentioned amount are as follows:

(€ in millions)	2022	2021
Less than 1 year	357	324
Between 1-5 years	804	704
More than 5 years	274	253
Total unfulfilled performance obligations	**1,435**	**1,281**

ACCOUNTING POLICY

The revenue recognition policy for each type of revenue or combination is presented below.

License revenue

License revenue is generated through licensing of digital map content and/or navigation software to B2B Location Technology customers and through the sale of map update services directly to the end-customers.

In the B2B license arrangements, the license of our navigation software is typically granted as 'right to use' license while the license of digital map content can either be granted as 'right to access' and/or 'right to use'. Right to access licenses provide the customer the right to access TomTom's map data which is continuously developed and enhanced during the contract period. Right to use licenses are those that only provide the customer the right to use certain map data or software as it exists at the moment the control passes to the customer. This does not give the customer the right to receive future updates or upgrades other than those that can be considered as minor enhancements or bug fixes.

Revenue from 'right to access' licenses is recognized over the (estimated) period during which TomTom is obliged to provide access to the customers. For royalty-based arrangements, the revenue is either recognized based on (estimated) reported royalties, as typically the royalties reflect the usage and benefits to the customers or based on time as progress measure but restricted to the amount of the (estimated) reported royalties. When restrictions in license terms result in multiple individual licenses in royalty-based arrangements for maps, each reported unit of usage is treated as a separate license or subscription. Previously, for each map subscription contract, the group estimated and allocated similar value to the initial map installed in a car as well as the rights to receive updates and treated the obligation to deliver the initial map and map updates as a single performance obligation. Based on developments in both our customer offerings as well as developments in the Location Technology market, effective from 1 November 2022, the initial map and map updates for each newly activated subscription are treated as two separate performance obligations. The transaction price allocated to the initial map is recognized immediately when the customer installs our map while the portion allocated to the map update service is recognized on a straight-line basis over the applicable service period.

License revenue for 'right to use' licenses is recognized at the moment the control passes to the customer, except for the usage-based royalties, which are recognized when the usage has taken place based on royalties TomTom is entitled to for the period.

When license arrangements include a minimum guarantee, the excess of the reported royalties above the guaranteed amount is only recognized when cumulative reported royalties have exceeded the minimum guarantee, unless the expected total royalties is estimated to be above the minimum. In this case, the revenue is recognized based on the royalties TomTom is entitled to. When contracts include an annual minimum instead of a contract minimum, the excess of royalties above the annual minimum is recognized in the respective period when the royalties exceed the annual minimum.

To the extent possible, the group makes use of the practical expedient to use right to invoice as a measure of progress as long as the invoice reflects the benefits to the customer.

Service revenue

Service revenue includes revenue generated from the sale of traffic and travel information services to both B2B and/or end-customers, sale of online map and location-based services through hosted API solutions (Maps APIs) and providing connected navigation services.

The (estimated) revenue relating to the service element is recognized over the agreed or estimated service period on a straight-line basis or based on the invoiced amount if such invoice reflects the benefit of the services to the customer over the service period. The service period for life-time traffic and map update service offering within Consumer is estimated at three years.

Sale of goods

Revenue from the sale of goods is generated primarily through the sale of Consumer navigation, Automotive hardware products and related accessories. Revenue from sale of goods is generally recognized at the moment the control passes to the customers.

Bundled goods and services

When products and services are offered as a bundle under one agreement or under a series of agreements that are commercially linked, the (estimated) total transaction price of the agreement is allocated to each of the identified 'distinct' performance obligation based on the relative stand-alone selling price of each element. Depending on their nature, the revenue from each of the 'distinct' performance obligations is recognized based on the applicable revenue recognition policy as described above.

Contract balances

The group uses the terms 'unbilled receivables' and 'deferred revenue' to describe contract assets and contract liabilities. The term 'Contract-related assets' is used to denote the aggregate balance of unbilled receivables and capitalized contract costs while 'Contract-related liabilities' refers to the collective balance of deferred revenue and other contract related liabilities.

Contract costs

Contract costs are capitalized only to the extent they are recoverable. Internal development costs relating to customer-specific customization of software and/or other technology platforms are capitalized as contract costs if they have no alternative use. The group does not capitalize costs to obtain multi-year contracts as they are not deemed to be material.

Where the amortization period of an asset recognized for the costs to obtain a contract is one year or less, the costs are expensed.

SIGNIFICANT ESTIMATES

Significant revenue estimates include the estimates of various pricing allowances deducted from the revenue, estimates of the stand-alone selling price of various elements in bundled arrangements and the estimation of total transaction price for contracts with customers.

Price allowance deductions

The estimated sales return deduction for Consumer revenue is based upon historical data on the return rates and information on the inventory levels in the distribution channel. For sales incentives, including channel and end-user rebates, the reduction in revenue is based on the group's historical experience, taking into account future expectations on rebate payments. If there is excess stock at retailers when a price reduction becomes effective, the group will compensate its customers on the price difference for their existing stock, provided certain criteria are met. To reflect the costs related to known price reductions in the income statement, an accrual is created against revenue at the time of sale based on an estimate of the inventory levels in the channel and future price reductions.

Relative stand-alone selling price

The relative stand-alone selling price of each element in a bundled arrangement is based on the available stand-alone selling price or is estimated using methods allowed under IFRS, such as the cost plus reasonable margin method, residual method or a combination thereof. In making such estimates, management makes use of judgment and assumptions to arrive at an outcome that best reflects a transaction's substance. Total deferred revenue balance relating to the elements deferred under bundled arrangements at 31 December 2022 amounted to €18 million (31 December 2021: €21 million).

Contract determination and total transaction price

Arrangements and contracting with Automotive customers are very specific and complex in nature. For each arrangement, management must make an assessment and judgment as to whether the agreement signed with the OEM should be treated as a contract under IFRS 15 or whether it serves as a framework agreement for future installation or activation of services. When the latter is the case, each of the activated individual subscriptions is treated as the contract as meant by IFRS 15 (referred to as 'subscription contracts'). If the overall agreement with the OEM is treated as a single contract, then management treats the future usage as variable consideration of the contract.

The (expected) total transaction price of such contracts needs to be estimated at the inception of the contract and each future reporting date. Such estimates particularly relate to expected usage of our licenses and/or services which may be susceptible to factors outside our influence such as the developments in the market and industry in which our customer operates. In making such estimates management makes use of input from different sources such as historical experience, estimated sales volumes of customers as well as other relevant sources. The estimated variable consideration is only taken into account to the extent that management believes that it is highly probable that it will not be subject to significant reversal in the future.

7 COST OF SALES

The group's cost of sales includes material and fulfillment costs for goods sold to customers, costs of services, royalty costs and costs attributed to certain contracts with customers.

8 PERSONNEL EXPENSES

Personnel expenses for the group can be broken down as follows:

(€ in thousands)	2022	2021
Salaries	240,862	228,268
Social security costs	38,595	34,986
Pensions	10,250	10,055
Stock compensation	11,300	7,306
Temporary employee expenses	13,690	14,154
Restructuring	25,856	695
Other[1]	39,641	20,799
Total personnel expenses	**380,194**	**316,263**

[1] Other personnel expenses include costs of (secondary) benefits such as working from home allowance, health insurance, sales commissions and bonuses offset by capitalized personnel expenses in an amount of €10 million (2021: €10 million). The year on year increase is mainly due to higher bonus.

The average number of employees (in FTE equivalents) in 2022 was 4,089 (2021: 4,373) spread across the following functional areas:

(€ in thousands)	2022	2021
Research and development - Geographic data	1,883	2,175
Research and development - Application layer	1,411	1,407
Sales and marketing	324	344
General and administrative	471	447
Total FTE	**4,089**	**4,373**

On 31 December 2022, the group had a headcount of 3,769 (2021: 4,424) employees. During 2022, 3,010 (2021: 3,279) full-time equivalent (FTE) employees worked outside the Netherlands.

PENSIONS

The group's pension plans primarily comprise defined contribution plans, limiting the employer's legal obligation to the amount it agrees to contribute during the period of employment.

In Italy, employees are paid a leaving indemnity on termination of their employment. This is a statutory payment based on Italian civil law. An amount is accrued each year based on the employee's remuneration and previously revalued accruals. This liability is included as part of 'Employee benefits provisions'.

Employees in the United States are offered the opportunity to participate in the 401K pension plan, which involves no contribution or obligation from the group besides withholding and paying the employee's contribution.

In addition, the group has defined benefit plans in Germany and Belgium.

The total pension costs of €10.3 million (2021: €10.1 million) consists of the costs of the defined contribution plans of €9.3 million (2021: €8.8 million) and of the defined benefit plan of €1.0 million (2021: €1.3 million).

Belgium

The Belgian defined benefit plan is a (guaranteed) insurance plan. The plan is funded by fixed monthly contributions from both the employer and employees. It provides a lump-sum payment at retirement, based on the contributions made, as well as death-in-service benefits. Belgian law prescribes a variable minimum guaranteed rate of return. The group substantially insures these returns with the external insurance company that receives and manages the contributions to the plans. According to the relevant legislation, a short-fall only needs to be compensated by the employer at the point in time when the employee either retires or leaves. As these plans have defined benefit features (when the return provided by the insurance company is below the legally required minimum return), the group treats these plans as defined benefit plans.

		2022		2021
(€ in thousands)	**Plan Assets**	**Plan Liabilities**	Plan Assets	Plan Liabilities
Present value as at 1 January	25,348	-33,130	23,310	-31,916
Return on assets	209		120	
Current service cost	0	-1,067	0	-1,087
Past service cost	0	305	0	
Interest cost	0	-277	0	-167
	25,557	**-34,169**	**23,430**	**-33,170**
Remeasurements:				
Experience gains due to change in demographical assumptions	515	-1,895	595	-678
Gains/losses from change in financial assumptions	0	6,095	0	926
	515	**4,200**	**595**	**248**
Benefits and taxes paid	-235	235	-300	300
Employer's contributions	1,191	0	1,115	0
Employee contributions	496	-496	508	-508
Present value as at 31 December	**27,524**	**-30,230**	**25,348**	**-33,130**
Net defined benefit obligation		**-2,706**		**-7,782**

Germany

The defined benefit plan in Germany is unfunded and has no plan assets. Management is of the opinion that the plan has limited risks to the group as the plan was frozen in 2007 and is only subject to gains/losses in actuarial risks. In the extraordinary event that the group is unable to meet its obligations, the participants will receive (partial) payments from a state-owned pension protection fund.

The following table presents the movement in the plan liabilities:

(€ in thousands)	2022	2021
Present value as at 1 January	-10,326	-10,930
Current service cost	-50	-64
Interest cost	-102	-76
	-10,478	**-11,070**
Remeasurements:		
Experience (gains)/losses due to change in demographical assumptions	-351	497
(Gains)/losses from change in financial assumptions	3,152	-40
	2,801	**457**
Benefits paid	189	287
Present value as at 31 December	**-7,488**	**-10,326**

Both the Belgian and German plans were impacted by the increase in interest rate leading to a decrease in the defined benefit obligations.

The significant actuarial assumptions used in determining the pension obligations were as follows:

	2022		2021	
	Belgium	**Germany**	Belgium	Germany
Discount rate	3.1%	3.7%	0.8%	1.0%
Average life expectancy[1]	14	17	16	16

[1] The above average life expectancy is the average actual value for males and females retiring at age 65 for the Belgium plan (2021: 65) in accordance with MR/FR -5 and 66 (2021: 66) for the Germany plan set in accordance with the common German mortality tables 'Heubeck 2018G'.

The table below indicates the sensitivity of the defined benefit obligation to changes in the discount rate:

	Impact on defined benefit obligation	
(€ in thousands)	**Belgium**	**Germany**
Discount rate increases by 0.5%	-1,218	-376
Discount rate decreases by 0.5%	921	459

ACCOUNTING POLICY

For defined contribution plans, the group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expenses when services have been rendered to the group. Prepaid contributions are recognized as an asset to the extent that a cash refund or reduction of future payments is available.

In relation to the defined benefit plan, the group recognizes a liability based on the present value of the defined benefit obligation at the end of the reporting period. The defined benefit obligation is calculated at least annually using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and for which the terms to maturity approximate the terms of the related pension obligation. The service cost and the interest cost are recognized as pension costs, while the actuarial gains/losses are credited/charged to 'Other comprehensive income'.

9 STOCK COMPENSATION

The group has stock compensation plans for members of the Management Board and certain employees as part of their remuneration. The purpose of the stock compensation is to retain management and employees, and align the interests of management and eligible employees with those of shareholders, by providing additional incentives to improve the group's performance on a long-term basis.

The group historically operates restricted stock unit plans, stock option plans and phantom share plans. However since 2019 the group no longer grants stock options and phantom shares and only grants restricted stock units. This change promotes share-ownership to increase alignment with our long-term value creation and shareholder interest. The disclosures on stock options and phantom shares in this note relate to grants made up to 2019.

EQUITY-SETTLED PLANS

The group's stock option plans (options) and restricted stock unit plans (RSU) classify as equity-settled plans as these plans are settled with the company's own equity instruments.

The equity-settled plans are for members of the Management Board and eligible employees. The General Meeting has extended the authority of the Management Board to grant, subject to the prior approval of the Supervisory Board, rights to employees to subscribe for shares under the respective equity plans. The instruments cannot be transferred, pledged or charged. All equity-settled stock compensation will be covered at the time of exercise, firstly through the issue of treasury shares held by the company, and secondly through the issue of new shares.

The following table summarizes movements in the equity stock compensation reserve (included in other reserves) relating to the equity-settled plans during 2022 and 2021:

(€ in thousands)	**2022**	**2021**
Balance as at 1 January	18,940	16,484
Stock compensation expense	10,532	5,927
Transfer to retained earnings	-847	-292
Stock options exercised and settlement of restricted shares	-8,734	-3,179
Balance as at 31 December	**19,891**	**18,940**

Restricted stock units

An RSU gives the holder the right to receive one TomTom share after the completion of the vesting period. After the vesting period Members of the Management Board are subject to a two-year holding period. For other employees, there is no minimum holding period after the vesting period.

RSUs vest either in total after a three-year vesting period (cliff vesting) or, in some cases, in equal tranches on an annual basis over a three-year period (graded vesting). The fair value of the RSUs is determined with reference to the share price of TomTom N.V. at the date of grant.

The movement in the number of restricted stock units during the years 2022 and 2021 is summarized below:

	2022	**2021**
Outstanding as at 1 January	2,868,273	2,049,734
Granted	3,095,644	1,414,850
Vested and settled	-924,131	-126,880
Forfeited	-350,887	-469,431
Outstanding as at 31 December	**4,688,899**	**2,868,273**

Stock options

Options are exercised at the discretion of the holder, however, they may only be exercised after the completion of a three-year vesting period. Options expire and are considered to have lapsed after a period of seven years following the grant date.

The following table summarizes information about the stock options outstanding at 31 December 2022:

Year of grant	**Number outstanding at 31/12/2022**	**Exercise price per share (€)**	**Weighted average remaining life**	**Number exercisable at 31/12/2022**	**Weighted average exercise price (€)**
2016	357,284	7.50 - 7.58	0.35	357,284	7.57
2017	608,570	9.15 - 9.60	1.36	608,570	9.56
2018	605,779	7.52 - 8.30	2.35	605,779	8.12
2019	61,538	10.06	3.79	61,538	10.06

A summary of the group's stock option plans and the movements during the years 2022 and 2021 is presented below:

	2022		**2021**	
	Number	**Weighted average exercise price (€)**	Number	Weighted average exercise price (€)
Outstanding as at 1 January	2,451,001	8.35	3,452,062	7.48
Exercised	-518,610	7.81	-892,510	5.11
Expired	-299,220	7.87	-88,670	8.24
Forfeited	0	-	-19,881	4.23
Outstanding as at 31 December	**1,633,171**	**8.61**	**2,451,001**	**8.35**

Options were exercised on a regular basis throughout the year. The average share price during the year was €7.90 (2021: €7.60).

The fair value of the options granted up to 2019 is determined using the binomial tree model. This model contains the input variables, including the risk-free interest rate, volatility of the underlying share price, exercise price and share price at the date of grant.

CASH SETTLED PLAN

Cash-settled plans are settled through cash payments.

Phantom share plan

As at 31 December 2022, there was no outstanding liability with regard to the phantom share plan (2021: nil) as the last remaining phantom shares vested and were paid out during 2021.

The following table provides the movement in the number of phantom shares in 2021.

	2021
Outstanding as at 1 January	358,750
Vested and paid out	-345,800
Forfeited	-12,950
Outstanding as at 31 December	**0**

ACCOUNTING POLICY

The fair value of equity-settled stock compensation grants as measured at the date of grant is expensed on a straight-line basis over the vesting period. For options, the fair value at grant date is measured using the binomial tree model. For restricted stock units, the fair value at grant date is equal to the share price at the date of grant.

Cash-settled stock compensation plans are initially measured at the fair value of the liability which is expensed on a straight-line basis over the vesting period. The liability is remeasured at each balance sheet date to its fair value, reflected by the share price at balance sheet date, with any changes recognized immediately through profit and loss.

All stock compensation expenses are based on the number of units that are expected to vest, the estimates of which are revised at each balance sheet date.

10 DEPRECIATION AND AMORTIZATION

Total depreciation and amortization for the year was €57 million (2021: €74 million).

(€ in thousands)	2022	2021
Amortization	32,835	47,160
Depreciation	23,837	26,511
Total depreciation and amortization	**56,672**	**73,671**

Amortization charges totaling are included in the following line items in the Income Statement:

(€ in thousands)	2022	2021
Research and development expenses - Geographic data	31,495	42,289
Research and development expenses - Application layer	1,339	4,868
Sales and marketing expenses	0	0
General and administrative expenses	1	3
Total amortization	**32,835**	**47,160**

11 GOVERNMENT GRANTS

In 2022, the group received government grants amounting to €2.1 million in relation to the research and development activities performed by the group (2021: €2.3 million). The grants have mainly been accounted for as a deduction of wage tax expense in line with the nature of the grants. The group didn't utilize any governmental support relating to COVID-19.

ACCOUNTING POLICY

Government grants are recognized at their fair value when there is reasonable assurance that the grants will be received and that the group will comply with the conditions attached to them. Government grants that are receivable as compensation for expenses or losses that are already incurred, or for the purpose of giving immediate financial support to the group with no related future costs, are recognized as a deduction of related expenses in the period in which the grants become receivable.

12 INCOME TAX

Income tax comprises the following current and deferred tax (expense):

(€ in thousands)	2022	2021
Current tax	-7,495	-7,745
Deferred tax	-445	-46
Total income tax	**-7,940**	**-7,791**

CURRENT INCOME TAX

The current tax represents the tax charge on profit for current year as well as adjustments relating to prior periods. The tax paid in 2022 was €5.1 million (2021: €7.6 million). The current income tax charge has a -€0.06 (2021: -€0.06) impact on our earnings per share.

The activities of the group are subject to corporate income tax in several countries, depending on presence and activity. The applicable statutory tax rates of the tax jurisdictions in which the group operates vary between 9% and 34% which may cause the group effective tax rate (ETR) to deviate from the Dutch corporate tax rate. The following table presents a numerical reconciliation between the tax charge on the basis of the Dutch tax rate and the ETR.

	2022	2021
Dutch tax rate	25.8%	25.0%
Higher/(lower) weighted average statutory rate of group activities	0.2%	0.1%
Non-deductible expenses	-4.0%	-2.9%
Current year losses not capitalized/non-recognition of previously	-27.5%	-27.7%
Effect of prior years' settlements and/or adjustments	-0.6%	-0.2%
Remeasurement of deferred tax	0.0%	0.0%
Other	-2.3%	-3.3%
Effective tax rate	**-8.4%**	**-9.0%**

The income tax expense of €7.9 million in 2022 represents an ETR of -8.4% (2021: -9.0%). The ETR for 2022 is mainly impacted by a combined effect of not capitalizing current year's tax loss and the non-recognition of the deferred tax assets on tax loss carry forward in the Netherlands.

The income tax debited directly to equity in 2022 amounted to €1.0 million (2021: credit of €2.7 million) which is mainly related to a change in deferred tax assets on defined benefit pension obligations offset by a gain due to a change in the deferred tax liability on an investment valued at fair value through other comprehensive income.

ACCOUNTING POLICY

Current and deferred taxes are recognized as an expense or income in the profit and loss account, except when they relate to items that arise from the initial accounting for a business combination or items credited or debited directly to equity. For the latter, the tax is also recognized either in Other comprehensive income or directly in equity. The group's income tax expense is calculated using tax rates that have been enacted or substantively enacted at the balance sheet date. Uncertain tax positions are included in current tax. The group recognizes uncertain tax provision when it is not probable that a particular tax treatment will be accepted by the tax authorities.

DEFERRED INCOME TAX

As at 31 December 2022, the group had a deferred tax liability of €2.4 million (2021: €3.9 million) and a deferred tax asset of €1.2 million (2021: €4.1 million). The deferred tax asset and liability mainly results from the timing difference between the tax and accounting treatment of intangible assets, investments at fair value, lease assets and liabilities, cash-settled long-term incentives, provisions as well as from the capitalization of carried forward tax losses.

The following table presents the movement in each of the categories on a gross basis.

(€ in thousands)	Assessed losses & credits	Provisions & Lease	Long-term incentives	Intangible assets	Other	**Total**
Balance as at 1 January 2021	7,163	4,260	1,202	-7,481	-2,215	2,929
(Charged)/credited to income statement	-3,046	-96	-392	1,731	1,753	-50
Credited/(charged) to equity	0	-345	0	0	-2,312	-2,657
Impact of remeasurement (charged)/credited to income statement	127	0	26	-149	0	4
Impact of remeasurement (charged)/credited to equity	0	0	0	0	-89	-89
Currency translation differences	36	14	0	-6	0	44
Balance as at 31 December 2021	**4,280**	**3,833**	**836**	**-5,905**	**-2,863**	**181**
(Charged)/credited to income statement	-1,569	-745	149	1,720	0	-445
Credited/(charged) to equity	0	-2,112	0	0	1,074	-1,038
Currency translation differences	-19	36	0	39	0	56
Balance as at 31 December 2022	**2,692**	**1,012**	**985**	**-4,146**	**-1,789**	**-1,246**

In some jurisdictions the group has tax losses that have not been recognized as a deferred tax asset as the future recovery of these losses against future taxable income is uncertain. As at 31 December 2022, these losses amounted to €467 million (2021: €358 million) of which €26 million (2021: €26 million) relates to foreign tax jurisdictions. These losses have not been capitalized as the conditions under IAS 12.35 and IAS 12.36 have not been met. The losses have no future expiry date.

The amount of uncapitalized tax losses increased compared with last year due to addition of current year tax loss and the non-recognition of previously capitalized losses. The deferred tax asset on losses and other temporary differences on our balance sheet is only recognized to the level of the available corresponding deferred tax liability. In making the assessment on the amount to be recognized we have taken into account the new loss utilization rule in the Netherlands applicable from 1 January 2022. Under this rule, the losses can be fully offset against the annual taxable profit up to €1 million and taxable profit in excess of €1 million can only be offset for 50% against previous years' tax losses.

In addition, the group has uncapitalized withholding and other tax credits amounting to €22 million (2021: €20 million).

The following table presents the expected timing of reversal of our deferred tax assets and liabilities:

(€ in thousands)	**2022**	**2021**
To be reversed within 12 months	-1,046	-1,127
To be reversed after more than 12 months	-200	1,308
Total deferred tax	**-1,246**	**181**

After offsetting deferred tax assets and liabilities, for an amount of €3.1 million (2021: €4.8 million) the net positions are presented as non-current assets and liabilities on the balance sheet as follows:

(€ in thousands)	**2022**	**2021**
Deferred tax assets	1,158	4,115
Deferred tax liabilities	-2,404	-3,934
Total deferred tax	**-1,246**	**181**

ACCOUNTING POLICY

Deferred taxes are calculated using the liability method. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes (accounting base) and the amounts used for income tax purposes (tax base).

Deferred tax assets and liabilities are measured using the tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled, using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date.

The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the group expects, at the balance sheet date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets are recognized when it is probable that sufficient taxable income will be available against which the deferred tax assets can be utilized. The carrying amounts of deferred tax assets are reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred income tax assets and liabilities are offset on the balance sheet when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to income taxes levied by the same fiscal authority.

SIGNIFICANT ESTIMATES

The determination of the group’s provision for income tax as well as deferred tax assets and liabilities involves significant judgments and estimates on certain matters and transactions, for which the ultimate outcome may be uncertain.

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in the countries where the deferred tax assets originated and the periods during which the tax losses or temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment.

If the final outcome or a new estimate differs from the group’s estimates, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

Non-current assets and investments

The notes in this section specify the group's non-current assets (and directly related liabilities) including investments made during the year either through separate asset acquisitions or business combinations.

13 GOODWILL

(€ in thousands)	2022	2021
Cost	1,881,901	1,881,901
Accumulated impairment	-1,689,607	-1,689,607
Balance as at 31 December	**192,294**	**192,294**

Goodwill is fully allocated to the Location Technology segment which represents the lowest level at which Goodwill is monitored in the group. Refer to note 5 for details on operating segments.

Our 2022 and 2021 impairment tests did not result in an impairment of Goodwill. Details of the assumptions and estimates made are presented under Significant Estimates below.

ACCOUNTING POLICY

Goodwill represents the excess of the costs of an acquisition over the fair value of the group's share of identifiable assets of the acquiree at the date of acquisition and is carried at cost less accumulated impairment losses. Goodwill is allocated to operating segments that are expected to benefit from the business combination in which the goodwill arose.

Impairment testing

Goodwill and intangible assets that have an indefinite useful life are tested for impairment at least annually, or whenever management identifies conditions that may indicate a risk of impairment.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount and is recognized immediately in the income statement. The recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. In estimating the recoverable amount, management is required to make an estimate of the expected future cash flows from the cash-generating unit in the forecasted period and also to determine a suitable discount rate in order to calculate the present value of those cash flows. Such estimates are subject to a certain degree of judgment and uncertainty.

Impairments to goodwill are not subsequently reversed.

SIGNIFICANT ESTIMATES

Impairment test of goodwill

The methodologies as well as assumptions applied in performing our year-end goodwill impairment test for Location Technology are set out below.

The recoverable amount of a segment is determined based on the higher of the value in use or fair value less costs of disposal calculations. The fair value less costs of disposal calculation resulted in a higher recoverable amount. The calculations of fair value less costs of disposal for Location Technology uses post-tax cash flow projections based on financial forecasts approved by management covering a five-year period (forecasted period) including terminal value.

Management's cash flow projections for Location Technology in the forecast period are based on management's assumptions on the expected revenue developments, gross margin and operating margin after allocation of operating expenses from shared units, taking into account management's expectation of market size and market share development.

Location Technology's revenue, is projected to grow in line with management's mid- and long-term plan in the forecast period. Given the limited visibility on the longer-term growth, the growth rates in the later years are more subject to uncertainty compared with the earlier years. Gross margin and operating margin projections of each of the segments are consistent with the expected revenue developments.

The growth rates after the forecast period as well as the discount rate used is presented in the table below. The input to the group's key assumptions include those that are based on non-observable market data (level 3 input in accordance with IFRS 13).

2022	Location Technology
Revenue – perpetual growth[1]	2.0%
Discount rate[2]	9.5%
2021	
Revenue – perpetual growth[1]	1.0%
Discount rate[2]	8.5%

[1] Weighted average growth rate used to extrapolate cash flows beyond the forecasted period.
[2] Post-tax discount rate applied to the cash flow projections.

Discount rates used are post-tax and reflect specific risks relating to the relevant operating segments and market uncertainties in general.

Management considered the effects of applying a pre-tax approach and concluded that this will not materially change the outcome of the impairment test.

Expectations and input to the impairment calculation, as well as the overall outcome, have been compared with the available external information from various analysts, and to the extent available, with market information on recent comparable transactions (merger and acquisition activities of comparable companies).

The sensitivity test for Location Technology showed that a reasonably possible change in any of the above-mentioned key assumptions as well as other assumptions in the forecasted period would not cause the fair value less costs of disposal to fall below the level of the carrying value.

14 OTHER INTANGIBLE ASSETS

The movements in the intangible assets are as follows:

(€ in thousands)	Map content and mapmaking platform[1]	Internally generated technology	Other	**Total**
Cost	1,198,192	135,370	59,822	1,393,384
Accumulated amortization and impairment	-1,086,396	-130,340	-59,173	-1,275,909
Balance as at 1 January 2021	**111,796**	**5,030**	**649**	**117,475**
Of which internally generated[2]	104,463	5,030	0	109,493
Amortization charges	-41,791	-4,791	-578	-47,160
Currency translation differences	163	0	0	163
Movements	**-41,628**	**-4,791**	**-578**	**-46,997**
Cost	1,109,923	135,472	7,729	1,253,124
Accumulated amortization and impairment	-1,039,755	-135,233	-7,658	-1,182,646
Balance as at 31 December 2021	**70,168**	**239**	**71**	**70,478**
Of which internally generated[2]	63,285	239	0	63,524
Additions	5,271	0	0	5,271
Disposals (net)	0	0	-71	-71
Amortization charges	-32,526	-239	0	-32,765
Currency translation differences	4	0	0	4
Movements	**-27,251**	**-239**	**-71**	**-27,561**
Cost	1,114,942	135,428	5,487	1,255,857
Accumulated amortization and impairment	-1,072,025	-135,428	-5,487	-1,212,940
Balance as at 31 December 2022	**42,917**	**0**	**0**	**42,917**
Of which internally generated[2]	35,009	0	0	35,009

1 The map content represents geographical content data used for the group's digital map database.

2 Internally generated technology does not include a balance relating to technology in development in both 2022 and 2021.

During the year the total gross amount of the assets disposed across all intangible asset classes was €2.2 million (2021: €141 million). The additions in the year related mainly to the acquisition of global satellite imagery data to be embedded in our products and services. No internal development projects were capitalized in 2022 as they did not meet the capitalization criteria.

ACCOUNTING POLICY

Other intangible assets

Other intangible assets includes assets that have been acquired, either through individual asset acquisitions or through business combinations, and assets that have been generated internally, such as the group's core technology and geographical content database.

Internally generated intangible assets

Internal development costs for core technology are recognized as an intangible asset if, and only if, all of the following have been demonstrated:

- The technical feasibility to complete the project.
- The intention to complete the intangible asset, and use or sell it.
- The ability to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits.
- The availability of adequate resources to complete the project.
- The cost of developing the asset can be measured reliably.

Internally generated databases are capitalized until a certain level of map quality is reached and ongoing activities focus on maintenance. Internal software costs relating to development of non-core software with an estimated average useful life of less than one year and engineering costs relating to the detailed manufacturing design of new products are expensed in the period in which they are incurred.
The amount initially recognized for internally generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. All expenditures on research activities are expensed in the income statement as incurred.

Acquired intangible assets

Intangible assets acquired separately are initially recognized at cost, including directly attributable costs to bring the asset to its intended use. Intangible assets acquired in a business combination are identified and recognized separately from goodwill when they satisfy the definition of an intangible asset and their fair values can be measured reliably.
The cost of such intangible assets is their fair value at the acquisition date.
All intangible assets are subsequently carried at cost less accumulated amortization and accumulated impairment losses.

The amortization of other intangible assets is recorded on a straight-line basis over the following estimated useful lives as follows:

- Map content and mapmaking platform: 5-12 years.
- Internally generated core technology: 3-6 years.
- Acquired technology: 3-5 years.
- Customer relationships: 5-13 years.
- Computer software: 2-5 years.

Impairment

Intangible assets which have an indefinite useful life and intangible assets not yet ready for use are tested for impairment at least annually, or whenever management identifies conditions that may indicate a risk of impairment. Assets that are subject to amortization are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

Testing is conducted as per the policy outlined in note 13.

Non-financial assets, other than goodwill, which have been subject to an impairment, are reviewed for possible reversal of the impairment at each reporting date.

SIGNIFICANT ESTIMATES

Management made use of assumptions and judgment in assessing the expected future economic benefits that can be attributed to the internally generated technology, databases and tools, as well as their expected useful lives. For internally generated databases, assumptions are also made on the level of completion, at which point the capitalization is discontinued and future activities are considered to be maintenance.

Such estimates are made on a regular basis, as they can be significantly affected by changes in technology and other factors.

Impairment of intangible assets

No impairment charge has been recorded for other intangible assets in either period presented.

15 PROPERTY, PLANT AND EQUIPMENT

(€ in thousands)	Furniture and fixtures	Computer equipment	Leasehold improvements	Other[1]	**Total**
Cost	8,555	37,679	11,820	4,026	62,080
Accumulated depreciation	-5,540	-25,464	-6,053	-2,804	-39,860
Balance as at 1 January 2021	**3,015**	**12,215**	**5,767**	**1,222**	**22,220**
Additions	1,415	4,443	7,246	226	13,330
Disposals (net)[2]	0	-13	0	-43	-56
Depreciation charges	-1,289	-6,495	-1,755	-387	-9,926
Currency translation differences	453	244	-133	109	673
Movements	**579**	**-1,821**	**5,358**	**-95**	**4,021**
Cost	7,507	34,529	16,953	2,523	61,512
Accumulated depreciation	-3,913	-24,135	-5,828	-1,395	-35,271
Balance as at 31 December 2021	**3,594**	**10,394**	**11,125**	**1,128**	**26,241**
Additions	304	3,944	738	69	5,055
Disposals (net)[2]	-71	-42	0	-8	-121
Reclassification between categories	487	10	-497		0
Depreciation charges	-1,235	-5,822	-1,932	-360	-9,349
Currency translation differences	-84	124	-194	-27	-181
Movements	**-599**	**-1,786**	**-1,885**	**-326**	**-4,596**
Cost	7,141	32,147	15,596	2,422	57,306
Accumulated depreciation	-4,146	-23,539	-6,356	-1,620	-35,661
Balance as at 31 December 2022	**2,995**	**8,608**	**9,240**	**802**	**21,645**

1 Other property, plant and equipment includes vehicles, production tools and molds.

2 The total gross amount of the assets disposed across all asset classes was €10 million (2021: €22 million).

No impairment has been recognized for property, plant and equipment in 2022 or 2021.

ACCOUNTING POLICY

Property, plant and equipment are stated at historical cost less accumulated depreciation and impairment charges. Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets as follows:

- Furniture and fixtures: 4-10 years.
- Computer equipment and hardware: 2-7 years.
- Leasehold improvements: 2-5 years.
- Vehicles: 4 years.

The estimated useful lives, residual values and depreciation methods are reviewed at each year-end, with the effect that any changes in estimate are accounted for on a prospective basis. The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset, and is recognized in profit or loss.

Impairment

For the accounting policy relating to impairment refer to note 14 Other intangible assets.

16 LEASE ASSETS AND LEASE LIABILITIES

The group leases assets including buildings, cars and, to a limited extent, certain office equipment.

Lease assets

The balances at year-end as well as key movements relating to lease assets are presented below:

(€ in thousands)	Lease buildings	Lease vehicles	Total
2022			
Additions to leased assets	15,260	571	15,831
Depreciation charges	13,220	1,268	14,488
Balance as at 31 December	34,592	1,223	35,815
2021			
Additions to leased assets	2,407	272	2,679
Depreciation charges	15,194	1,391	16,585
Balance as at 31 December	29,838	1,650	31,488

Lease buildings

Buildings are leased for office space for periods of approximately of 2-5 years. Leases for office buildings typically include an option, exercisable by the group as lessee up to one year before the end of the cancellable lease term, to renew the lease for an additional period of the same duration after the end of the contract term.

At the end of the year, the group had options to extend lease contracts for leased buildings which represent potential discounted future lease payments not included in lease liabilities of €47 million (2021: €38 million).

Most real estate leases include annual escalation clauses with reference to an index or contractual rate.

Other leases

The group leases vehicles for qualifying employees with a standard lease term of four years. The group does not purchase or guarantee the value of lease vehicles.

In some cases the group leases furniture and office equipment with terms of 1-3 years. The group considers these assets to be of low-value or short-term in nature and therefore no right-of use assets and lease liabilities are recognized for these leases.

Expenses recognized relating to short-term leases and leases of low value during 2022 was €0.3 million and €0.1 million respectively (2021: €0.2 million and €0.5 million).

Lease liabilities

The total interest expense on lease liabilities in 2022 was €0.9 million (2021: €0.9 million) and the total cash outflow for lease related payments was €15 million (2021: €16 million). Lease liabilities have the following maturities:

(€ in thousands)	2022	2021
Less than 1 year	11,954	14,059
Between 1-5 years	20,483	19,336
More than 5 years	9,151	1,473
Total undiscounted lease liabilities at 31 December	**41,588**	**34,868**

ACCOUNTING POLICY

Leases as a lessee

A contract is classified as a lease at the inception of the contract, if the contract conveys the right to control the use of an identified asset for a period in exchange for consideration.

The group recognizes a right-of-use asset (lease asset) and a lease liability at the lease commencement date. The asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received.

The lease asset is subsequently depreciated using the straight-line method from the commencement date to the end of the useful life of the right-of-use asset, considered to be indicated by the lease term. The lease asset is periodically adjusted for certain remeasurements of the lease liability and impairment losses (if any).

The lease liability is initially measured at the present value of outstanding lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the group's incremental borrowing rate. Generally, the group uses its incremental borrowing rate as the discount rate. The group separates payments for lease cars into lease components and non-lease components.

The lease liability is measured at amortized cost using the effective interest method and is remeasured when there is a change in future lease payments arising from a change in an index or rate or if the group changes its assessment of whether it will exercise a purchase, extension or termination option. A corresponding adjustment is made to the carrying amount of the right-of-use asset with any excess over the carrying amount of the asset being recognized in profit or loss.

Short-term leases and leases of low value assets

The group has elected not to recognize lease assets and lease liabilities for short-term (term of 12 months or less) leases and leases of low-value assets, including IT equipment. The group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Extension options

Extension options are mainly applicable to leased buildings.

The group assesses whether it is reasonably certain to exercise the options at lease commencement and subsequently, if there is a change in circumstances within its control. Such assessment involves management judgment and estimate based on information at the time the assessments are made.

Extension options are included in the lease term when the group has an economic incentive to exercise the option. The group considers available evidence at the time of the assessment, including potential favorable terms upon extension, potential termination penalties, the relative costs associated with potential relocation or termination of the lease and the extent of leasehold improvements undertaken.

The size and the relative importance of the lease premises as well as the availability of easily substitutable assets is taken into consideration when assessing whether the group has an economic incentive to extend a lease for which it holds an option to do so.

17 OTHER INVESTMENTS

The group held an equity interest in Cyient Ltd. (Cyient) which is valued at fair value. The group has elected to account for future changes in fair value through other comprehensive income. Total amount of fair value changes recognized during 2022 in other comprehensive income amounted to a loss of €3.1 million (2021: gain of €6.8 million) net of tax. For accounting policies relating to financial assets at fair value, reference is made to note 28.

Working capital

The notes in this section specify items that form part of group's working capital including disclosure relating to cash and cash equivalents.

18 INVENTORIES

(€ in thousands)	2022	2021
Finished goods	7,850	11,720
Components and sub-assemblies	6,810	7,865
Total inventories	**14,660**	**19,585**

The amount of inventories recognized as an expense when the inventories are sold and included in cost of sales amounted to €43 million (2021: €45 million). As a result of the write-down of inventories to their net realizable value, the group recognized a cost of €2.2 million (2021: €2.2 million). These costs are included in cost of sales.

ACCOUNTING POLICY

Inventories are stated at the lower of cost and net realizable value. The cost of inventories comprises costs of purchase, assembly and conversion to finished products. The cost of inventories is determined using the first-in, first-out (FIFO) method, net of reserves for obsolescence and any excess stock. Net realizable value represents the estimated selling price less an estimate of the costs of completion and direct selling costs.

19 TRADE RECEIVABLES

(€ in thousands)	2022	2021
Gross accounts receivables	67,492	58,117
Expected credit loss allowance	-1,749	-1,938
Total trade receivables (net)	**65,743**	**56,179**

The carrying amount of trade receivables approximates their fair value and the group expects to recover all receivables within a year. The group does not hold any collateral over these balances. In determining the expected credit loss allowance, the group has considered any change in risk profile of our customers taking into account the current economic conditions.

Trade accounts receivable include amounts denominated in the following major currencies:

(€ in thousands)	2022	2021
EUR	40,321	31,938
GBP	115	1,701
USD	23,712	18,385
Other	1,595	4,155
Total trade receivables (net)	**65,743**	**56,179**

ACCOUNTING POLICY

Trade receivables that do not contain a significant financing component or for which the group has applied the practical expedient, are measured at the transaction price as disclosed in Revenue from contracts with customers (note 6), less expected credit loss allowances. For details of expected credit losses refer to note 27.

20 | OTHER RECEIVABLES AND PREPAYMENTS

(€ in thousands)	2022	2021
Prepayments	27,354	13,472
Corporate income tax, VAT and other taxes	6,804	6,579
Other receivables	2,645	5,378
Total other receivables	**36,803**	**25,429**

The carrying amount of the other receivables and prepayments approximates their fair value. The increase in Prepayments is due to timing of certain invoices.

For accounting policies related to 'Other receivables' reference is made to note 28.

21 | OTHER FINANCIAL ASSETS AND LIABILITIES

Other financial assets/liabilities includes derivative financial instruments carried at fair value through profit or loss. Derivative assets are disclosed as part of other receivables and prepayments and derivative liabilities are included in accruals and other liabilities.

	2022		2021	
(€ in thousands)	Assets	Liabilities	Assets	Liabilities
Derivatives at fair value through profit or loss	131	-192	136	0

The notional principal amounts of the outstanding forward foreign exchange contracts as at 31 December 2022 were €9.6 million (2021: €15.0 million). All the group's outstanding forwards have a contractual maturity of less than one year.

ACCOUNTING POLICY

Derivatives are initially and subsequently measured at fair value. Gains or losses arising from changes in fair value of derivatives are recognized in the income statement. Transaction costs are expensed in the income statement.

The group does not apply hedge accounting.

22 | CASH AND CASH EQUIVALENTS AND FIXED-TERM DEPOSITS

Cash placed in accounts are classified based on the nature of the account and the length of time to maturity.

Cash and cash equivalents

Cash and cash equivalents of €133 million (2021: €206 million) includes cash held in short-term bank deposits with an original maturity of three months or less. Cash and cash equivalents are predominantly denominated in euros and partly in U.S. Dollars.

The carrying amount of cash and cash equivalents approximates its fair value.

Fixed-term deposits

Fixed-term deposits are investments in term deposits with financial institutions of €171 million. Investments are made with institutions with investment grade credit ratings and are all denominated in euros (2021: €150 million).

Fixed-term deposits have maturities of more than three but less than 12 months from the date of acquisition. The carrying amount of fixed-term deposits assets approximates their fair value.

ACCOUNTING POLICY

Cash and cash equivalents

Cash and cash equivalents are stated at face value and comprise cash on hand, deposits held on call with banks and other short-term highly liquid investments which have a maturity of three months or less from the date of acquisition. They are readily convertible to a known amount of cash and subject to an insignificant risk of changes in value.

Fixed-term deposits

Fixed-term deposits have insignificant interest rate risk and maturity dates longer than three months but less than 12 months at the date of acquisition.

23 TRADE PAYABLES

All trade payable balances have a contractual maturity of less than six months and the carrying amount approximates their fair value.

ACCOUNTING POLICY

Accounts payable include trade payables as well as amounts for orders which have been fulfilled and the goods have been received, but for which no invoice has yet been processed. The timing and amount of the obligation relating to these payables are certain.

24 ACCRUALS AND OTHER LIABILITIES

Accruals and other liabilities comprise the following:

(€ in thousands)	2022	2021
Personnel-related accruals	55,567	32,071
Operating expense accruals	8,760	14,693
Taxes and social security	7,378	8,155
Total accruals and other liabilities	**71,705**	**54,919**

Personnel related-accruals increased due to restructuring-related accruals and higher accruals for short-term incentives.

For accounting policies relating to financial liabilities and accruals, reference is made to note 28.

Financing, financial risk management and financial instruments

This section includes notes related to financing items such as equity and borrowings, including related items such as earnings per share, as well as financial risk management-related items, financial income and expenses.

25 SHAREHOLDERS' EQUITY

	2022		2021	
	Number	(€ in thousands)	Number	(€ in thousands)
Authorized:				
Ordinary shares	300,000,000	60,000	300,000,000	60,000
Preferred shares	150,000,000	30,000	150,000,000	30,000
Total	**450,000,000**	**90,000**	**450,000,000**	**90,000**
Issued and fully paid:				
Ordinary shares	132,366,672	26,473	132,366,672	26,473
Of which held in treasury	3,974,381		5,417,122	

In 2022, no share buyback was made. During 2021, 4.3 million shares were purchased for an aggregate consideration of €33.4 million. Since the program's initial launch in 2020, a total of 6.7 million shares were repurchased for €50 million, at an average price of €7.48 per share.

During the year, 1,442,741 treasury shares were issued to cover the exercise of employee stock options and settlement of restricted stock units (2021: 1,019,390 treasury shares). All shares have a par value of €0.20 per share (2021: €0.20 per share). All issued shares have been fully paid. Further information on the rights, restrictions and other conditions attached to ordinary and preferred shares is provided in the Corporate Governance section in the Annual Report.

Reserves are freely distributable except for €53 million of legal reserves (2021: €80 million). Note E. Other reserves in the company financial statements provide an overview of the non-distributable reserves.

The Corporate Governance section provides a detailed description regarding the use of Foundation Continuity TomTom as a protective measure.

Management is of the opinion that the call option as described in the Corporate Governance section does not represent a significant value as meant in IAS 1, paragraph 31, since the likelihood that the call option will be exercised is remote. In the remote event that the call option is exercised, the preferred shares that are issued temporarily are intended to be canceled within a one-year period. The option is therefore not accounted for, nor is further disclosure provided.

ACCOUNTING POLICY

Share capital

Ordinary shares are classified as share capital. Equity instruments are recorded at the proceeds received, net of direct issue costs.

Share premium

The share premium represents the amount by which the fair value of the consideration received exceeds the nominal value of shares issued. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Treasury shares

Own equity instruments that are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the group's own equity instruments. Upon reissue, any difference between the carrying amount (determined on a first-in, first-out basis) and the consideration is recognized in the retained earnings.

26 EARNINGS PER SHARE

The calculation of basic and diluted earnings per share is based on the following data:

(€ in thousands)	2022	2021
Net result attributable to ordinary equity holders	**-102,735**	**-94,653**
Number of shares		
Weighted average number of ordinary shares for basic earnings per share	127,849	127,714
Effect of dilutive potential ordinary shares		
Stock options and restricted stock units	2,269	1,716
Weighted average number of ordinary shares for diluted earnings per share	130,118	129,430
Earnings per share (€)		
Basic	-0.80	-0.74
Diluted	-0.80	-0.74

ACCOUNTING POLICY

Basic earnings per share

Basic earnings per share is calculated by dividing the profit attributable to equity holders of the company by the weighted average number of ordinary shares outstanding during the year. Treasury shares are deducted from the number of ordinary shares outstanding on a weighted average basis.

Diluted earnings per share

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares arising from stock options and other equity-settled stock compensation plans. When the effect of the equity-settled stock compensation plans is anti-dilutive, the number is excluded from the calculation of diluted earnings.

27 FINANCIAL RISK MANAGEMENT

The group's activities result in exposure to a variety of financial risks including credit, foreign currency, liquidity, interest rate and capital risk. Management policies have been established to identify, analyze and monitor these risks, and to set appropriate risk limits and controls. Financial risk management is carried out in accordance with our Corporate Treasury Policy. The written principles and policies are reviewed periodically to reflect changes in market conditions, the activities of the business and laws and regulations affecting the group's business.

Credit

Credit risk arises primarily from cash and cash equivalents and investments held at financial institutions and, to a certain extent, from trade receivables and contract assets.

Cash balances are held with counterparties that have a credit risk rating of at least BBB-, as rated by an acknowledged rating agency. Moreover, to avoid significant concentration of exposure to particular financial institutions, we ensure that transactions and businesses are properly spread among different counterparties.

The group's exposure from its customers is managed through establishing proper credit limits and continuous credit risk assessments for each individual customer.

Procedures include aligning credit and trading terms and conditions with an assessment of the individual characteristics and risk profile of each customer. This assessment is made based on past experiences and independent ratings from external rating agencies whenever available.

Management actively monitors the credit risk related to these customers, also taking into account the current macro-economic conditions and takes proactive action to reduce credit limits if required.

The following table summarizes the movement in the expected credit loss allowances for both trade receivables and unbilled receivables:

(€ in thousands)	2022	2021
Balance as at 1 January	-2,213	-2,702
Additions to provision	-912	-1,203
Receivables written off during the year as uncollectible	582	982
Unused amounts reversed	602	737
Currency translation differences	7	-27
Balance as at 31 December	**-1,934**	**-2,213**

To measure the expected credit losses, trade receivables and unbilled receivables have been grouped based on shared credit risk characteristics and the days past due as presented below:

(€ in thousands)	2022	2021
Gross unbilled receivables	48,483	67,585
Gross trade receivables	67,492	58,117
	115,975	**125,702**
Of which:		
Not overdue	107,303	119,964
Overdue less than 3 months	5,007	534
Between 3-6 months	1,533	1,999
More than 6 months	2,132	3,205
Gross receivables	**115,975**	**125,702**

Not overdue represents balances for which payment terms specified in the terms and conditions established with the group's customers have not been exceeded or balances which have not yet been invoiced.

As at 31 December 2022, the total expected credit loss allowance represented approximately 0.4% of group revenue (2021: 0.4%).

ACCOUNTING POLICY

In determining the expected credit loss, the group applies the simplified approach to measuring expected credit losses, which uses a lifetime expected loss allowance for all trade and unbilled receivables. As unbilled receivables share the same risk characteristics as trade receivables for similar types of contracts, the expected loss rates for trade receivables are considered a reasonable approximation of the loss rates for unbilled receivables. The expected credit loss rates are measured by grouping trade and unbilled receivables based on shared credit risk characteristics and days passed due. When a trade receivable is uncollectible, it is written off against the allowance account for trade receivables. The expected loss allowances and any subsequent recoveries of amounts previously written off, are recognized in operating expenses within 'General and administrative' expenses.

Foreign currency

The group operates internationally and conducts business in multiple currencies. Revenue is earned in EUR, GBP, USD and other currencies, and does not necessarily match the cost of sales and other costs which are largely in EUR, USD and PLN. Foreign currency exposures on commercial transactions relate mainly to estimated purchases and sales transactions that are denominated in currencies other than reporting currency – EUR (€).

The group manages foreign currency transaction risk in normal circumstances through forward contracts to cover forecasted net exposures. All such transactions are carried out within the guidelines set by Corporate Treasury Policy, which is reviewed annually by the Audit Committee.

A 2.5% strengthening/weakening of EUR as at 31 December 2022 would have had the following impact (increase/(decrease)) on profit or loss, and equity:

	2022		2021	
(€ in thousands)	Strengthen	Weaken	Strengthen	Weaken
USD	218	-218	777	-777
GBP	-324	324	-356	356
PLN	-467	464	-298	298

This analysis assumes that all other variables remain constant. The analysis was performed on the same basis as in 2021.

A breakdown of receivables held in foreign currencies is provided in note 19.

Liquidity

The approach to managing liquidity is to ensure that sufficient funds are available to meet financial obligations when they fall due under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the group's reputation. To ensure there is sufficient cash to meet expected operational expenses, including the servicing of financial obligations, actual and future cash flow requirements are regularly monitored, taking into account the maturity profiles of financial assets and liabilities and the rolling forecast of the group's liquidity reserve, which comprises cash and cash equivalents as well as fixed-term deposits.

As at 31 December 2022, the group's net cash position was €304 million, which is assessed to be sufficient to cover the group's liquidity needs.

Credit facility

In June 2019, the group entered a revolving credit facility comprising of €75 million and an additional €40 million accordion option. The facility had an original maturity date of June 2022 with a subsequent extension agreed until June 2023.

Given the group's strong cash position, the facility remained undrawn in the past few years and based on forecasts, there were no expectations of utilizing it in the future. Given this, the credit facility was terminated effective 2 February 2022.

Interest rate

Interest rate risk arises primarily from the exposure to interest income/expense on cash balances.

Our intention is to prioritize capital preservation, and when possible we invest our surplus cash using approved investment instruments, such as bank deposits and money market fund investments. All transactions and counterparty risk limits are governed by the Corporate Treasury Policy.

Capital

The group's financing policy aims to maintain a capital structure that enables the group to achieve its strategic objectives and daily operational needs, and to safeguard the group's ability to continue as a going concern.

In order to maintain or adjust the capital structure, the group may issue new shares, adjust its dividend policy, return capital to shareholders or take on new debt.

As at 31 December 2022, the group had a net cash position (including fixed-term deposits) of €304 million (2021: €356 million).

For further quantitative disclosures in respect of liquidity, interest rate and capital risks, reference is made to note 22 and note 25.

28 FINANCIAL INSTRUMENTS

The group holds the following financial instruments for which additional disclosures are provided in the notes as indicated:

(€ in thousands)	Note	**2022**	**2021**
Financial assets			
Financial assets at amortized cost			
Trade receivables	19	65,743	56,179
Fixed-term deposits	22	171,000	150,000
Cash and cash equivalents	22	132,729	205,820
Financial assets at fair value through profit or loss			
Derivative instruments	21	131	136
Financial assets at fair value through other comprehensive income			
Other investments		13,814	17,982
Total financial assets		**383,417**	**430,117**
Financial liabilities			
Financial liabilities at amortized cost			
Trade payables	23	6,102	14,022
Lease liabilities	16	37,725	33,339
Financial liabilities at fair value through profit or loss			
Derivative instruments	21	192	0
Total financial liabilities		**44,019**	**47,361**

Refer to note 27 for disclosure of group's exposure to risks associated with financial instruments.

ACCOUNTING POLICY

Financial assets

The group classifies its financial assets, at initial recognition, as subsequently measured at amortized cost or at fair value through profit or loss or other comprehensive income. The classification depends on the purpose for which the financial assets were acquired.

Financial assets at amortized cost

Financial assets measured at amortized cost are financial assets which are held for the objective of collecting contractual cash flows which are fixed and determinable and consist solely of payments of principal and interest. They are initially recognized at fair value and subsequently measured at amortized cost (if the effect of time value is material) using the effective interest method, less any expected credit losses. Financial assets are included in current assets, except for those with maturities greater than 12 months after the balance sheet date, which are classified as non-current assets. For further details regarding expected credit losses, refer to note 27 Financial risk management.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income (OCI) represents investment in equity instruments carried at fair value. The group elected to recognize the changes in fair value through OCI. Dividend income is recognized in the profit or loss when the group's right to receive payment is established. The fair value of such instrument is determined using level 1 input.

Financial assets and liabilities at fair value through profit or loss

Derivatives are categorized at fair value through profit or loss unless they are designated as hedges. Derivatives are recorded as financial assets when the value of the derivative is positive in favor of the company; otherwise the derivative is classified as a financial liability. All derivative financial instruments are classified as current or non-current assets or liabilities based on their maturity dates and are accounted for at trade date. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the group has substantially transferred all risks and rewards of ownership.

The fair value of financial assets/liabilities carried at fair value through profit or loss is determined using valuation techniques that maximize the use of observable market data where it is available and which rely as little as possible on entity-specific estimates. In accordance with the fair value hierarchy established by IFRS 13, these types of inputs classify as level 2 inputs.

Financial liabilities at amortized cost

Financial liabilities issued by the group are classified according to the substance of the contractual arrangements entered into, and the definitions of a financial liability. Financial liabilities are initially recognized and measured at fair value and subsequently at amortized cost.

Fair value estimation

The group classifies fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements.

The fair value hierarchy divides the inputs into the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2: inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly (for example, derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data.

29 FINANCIAL RESULT

Other financial result includes the following items:

(€ in thousands)	2022	2021
Other financial result	392	366
Foreign exchange result	3,219	7,354
Other financial result	**3,611**	**7,720**

The interest expense as presented in the consolidated statement of income relates mainly to interest expense on cash balances and lease liabilities. (see note 27 Financial risk management).

The foreign exchange result includes results that mainly related to monetary balance sheet item revaluations (including deposits in foreign currency) and to a lesser extend from derivative contracts. Derivative contracts are entered into to protect the group from adverse exchange rate fluctuations that may result from PLN and INR (2021: PLN) exposures.

ACCOUNTING POLICY

Interest income and expense are recognized using the effective interest method. Interest expense includes all finance costs such as lease interest expense and facility commitment fee.

Other disclosures

This section includes the notes on provisions, commitments and contingent liabilities, remunerations of members of the Management Board and the Supervisory Board, related party transactions and auditor's remuneration.

30 PROVISIONS

(€ in thousands)	2022	2021
Non-current	18,237	33,484
Current	11,020	6,537
Total provisions	**29,257**	**40,021**

The movements in each category of provisions are as follows:

(€ in thousands)	Warranty	Claims and litigation	Employee benefits	Other	Total[1]
Balance as at 1 January 2021	**8,041**	**14,464**	**22,894**	**3,533**	**48,932**
Increases in provisions	972	376	335	3,063	4,746
Utilized	-2,528	0	-1,822	-2,188	-6,538
Released	-550	-5,366	0	-1,203	-7,119
Balance as at 31 December 2021	**5,935**	**9,474**	**21,407**	**3,205**	**40,021**
Increases in provisions	1,297	455	-429	31,054	32,377
Utilized	-3,657	0	-8,444	-12,316	-24,417
Released[1]	-204	-4,441	0	-4,925	-9,570
Reclassified	0	0	0	-9,154	-9,154
Balance as at 31 December 2022	**3,371**	**5,488**	**12,534**	**7,864**	**29,257**

[1] Releases in claims and litigation mainly reflects the expiry of statute of limitations, while releases in warranty and other provisions relate to unutilized provisions.

Other provisions in 2022 included a restructuring provision (€4.4 million) relating to the re-alignment of our Maps organization as announced in June 2022. The initial amount provided (€31 million) was made based on a best estimate of the impacted employees and the expected settlement amounts. Due to redeployment of some of the impacted employees, an amount of €4.9 million was released into the income statement. The expected settlement amounts that have been agreed upon as at 31 December 2022 (€9.2 million) are presented under 'Personnel-related accruals' as disclosed in note 24.

ACCOUNTING POLICY

Provisions are recognized when:

- The group has a present obligation as a result of a past event.
- It is probable that the group will be required to settle that obligation.
- The amount can be reliably estimated.

Provisions are measured at management's best estimate of the expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

Warranty provision

The group offers warranties mainly for its hardware products in Consumer (including Automotive hardware). Provisions for warranty costs are recognized at the date of sale of the relevant products, at management's best estimate of the expenditure required to settle the group's obligation. Warranty costs are recorded within cost of sales.

Claims and litigation provision

The group made a provision for potential legal, tax penalties and other risks in various jurisdictions. The legal matters consist mainly of intellectual property infringement issues. In the normal course of business, the group receives claims relating to allegations that it has infringed intellectual property assets.

In such cases, the companies making the claims seek payments that may take the form of licenses and/or damages. While these claims will be resisted, some are likely to be settled by negotiation and others are expected to result in litigation.

The cases and claims against the group often raise difficult and complex factual and legal issues which are subject to many uncertainties and complexities, including but not limited to the facts and circumstances of each particular case and claim, the jurisdiction in which each suit is brought, and the differences in applicable law. In the normal course of business, management consults with legal counsel and certain other experts on matters related to such claims and litigation. The group accrues a liability when it is determined that an adverse outcome is more likely than not, and the amount of the loss can be reasonably estimated.

If the likelihood of an adverse outcome is reasonably possible or an estimate is not determinable, the matter is disclosed, provided it is material. Management is of the opinion that the provision is adequate to resolve these claims.

Employee benefits provision

Employee benefits provision relates mainly to the defined benefit pension plan in Germany and Belgium as disclosed in note 8 and excludes restructuring provision.

Other provision

Other provision includes provisions for restructuring which is recognized only when a detailed formal plan has been finalized and management has raised valid expectation to those affected that the plan will be implemented.

SIGNIFICANT ESTIMATES

Warranty provision

Management estimates the related provision for future warranty claims based on historical warranty claim information, as well as evaluating recent trends that might suggest that past cost information may differ from future claims. From the total warranty provision of €3 million (2021: €6 million), it is estimated that an amount of €2 million (2021: €3 million) will be utilized within 12 months while the remaining will be utilized between 1-3 years.

Claims and litigation provision

The methodology used to determine the amount of the liability requires significant judgments and estimates regarding the costs of settling asserted claims. Due to the fact that there is limited historical data available, the estimated liability cannot be based upon recent settlement experience for similar types of claims.

Based on the best estimate, the portion of the claims and litigation provision expected to be settled in the coming 12 months amounts to approximately €0.4 million (2021: €0.4 million).

31 COMMITMENTS, CONTINGENT ASSETS AND LIABILITIES

The group has long-term financial commitments, which are not shown in the group's balance sheet as at 31 December 2022. These commitments relate mainly to service contracts with suppliers.

Also included is open purchase commitments with contract manufacturers for certain products and components. Contract manufacturers order the requisite component parts from their suppliers on the basis of forecasts of the number of units required. In certain circumstances, the group has a contractual obligation to purchase these components from the manufacturers. The total commitments under these contracts are presented below:

(€ in thousands)	2022	2021
Less than 1 year	55,692	70,882
Between 1-5 years	40,064	46,140
More than 5 years	630	840
Total commitments	**96,386**	**117,862**

The group has a guarantee facility of €5 million, of which a total amount of €3 million has been issued (2021: €5 million and €3 million respectively).

Two German subsidiaries, TomTom Germany GmbH & Co. KG. and TomTom Location Technology Germany GmbH, which are included in these consolidated financial statements, apply the exemption as described in section 264b of the German Commercial Code (HGB) with regard to the publication of the annual financial statements and the drawing up of a management report and the notes to the financial statements.

Contingencies

Please refer to note 12 and note 30 for disclosures on tax and legal contingencies.

Based on legal advice, there were no other contingencies that management expects to have a material adverse effect on the group's financial position as at 31 December 2022.

32 RELATED PARTY TRANSACTIONS

A full overview of the remuneration of the Management Board and the Supervisory Board is included in the Remuneration Report.

The expenses relating to remuneration of key management personnel are presented in the following table:

(€)	Salary and bonus[1]	Other short-term benefits[2]	Post-employment benefits	Long-term incentives	**Total remuneration[3]**
2022					
Management Board and Senior Leadership Team	6,196,965	108,825	241,598	3,601,158	10,148,546
Supervisory Board	236,790	0	0	0	236,790
Total remuneration	**6,433,755**	**108,825**	**241,598**	**3,601,158**	**10,385,336**
2021					
Management Board and Senior Leadership Team	4,898,800	660,113	228,127	3,333,208	9,120,248
Supervisory Board	270,000	0	0	0	270,000
Total remuneration	**5,168,800**	**660,113**	**228,127**	**3,333,208**	**9,390,248**

1 In 2022, the total bonus expense amounted to €2.3 million versus €1.0 million in 2021.

2 The other short-term benefits in 2022 and 2021 relate mainly to social security charges.

3 The increase in total remuneration is due to an increase in the salaries, bonuses and long-incentives of the Management Board and Senior Leadership Team.

Certain key personnel also hold ownership interests in TomTom N.V., as disclosed in the Corporate governance section under ‘Substantial shareholdings and short positions’.

33 AUDITOR’S REMUNERATION

The total remuneration to Ernst & Young Accountants LLP for the statutory audit of 2022 for the group amounted to €515,000 (2021: €500,000). The total service fees paid/payable to the Ernst & Young network amounted to €657,000 (2021: €561,000). The full amount is invoiced by Ernst & Young Accountants LLP and includes an amount of €62,000 (2021: €61,000) for other statutory audits and €80,000 for a limited assurance engagement on ESG.

Details of the audit and audit-related fees paid to EY can also be found in the Audit Committee report.

34 SUBSEQUENT EVENTS

Reference is made to note H in the company financial statements.

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Company financial statements

Company statement of income

For the year ended 31 December

(€ in thousands)	Notes	2022	2021
General and administrative expenses	B	6,467	6,317
Operating result		**-6,467**	**-6,317**
Interest expense		-24,728	-11,823
Other financial result		0	0
Result before tax		**-31,195**	**-18,140**
Income tax gain		7,668	4,152
Result of subsidiaries after taxation	C	-79,208	-80,665
Net result		**-102,735**	**-94,653**

Company balance sheet

As at 31 December (before proposed appropriation of net result)

(€ in thousands)	Notes	2022	2021
Investments in subsidiaries	C	2,086,997	2,152,077
Total non-current assets		**2,086,997**	**2,152,077**
Receivables		46,806	39,383
Cash and cash equivalents		16	20
Total current assets		**46,822**	**39,403**
Total assets		**2,133,819**	**2,191,480**
Share capital		26,473	26,473
Share premium		338,124	338,124
Treasury shares		-30,482	-40,746
Other reserves	E	72,817	99,172
Accumulated result		-104,591	-45,647
Result for the year		-102,735	-94,653
Total shareholders' equity	D	**199,606**	**282,723**
Intercompany payable	F	1,932,539	1,907,782
Total non-current liabilities		**1,932,539**	**1,907,782**
Other liabilities		1,674	975
Total current liabilities		**1,674**	**975**
Total equity and liabilities		**2,133,819**	**2,191,480**

A PRESENTATION OF FINANCIAL STATEMENTS AND RECOGNITION AND MEASUREMENT PRINCIPLES

The description of the activities of TomTom N.V. (the company) and the company structure, as included in the notes to the consolidated financial statements, also applies to the company financial statements.

The company has prepared its company financial statements in accordance with Part 9 of Book 2 of the Dutch Civil Code and, specifically, in accordance with section 362.8 of the Dutch Civil Code. In doing so, it has applied the principles of recognition and measurement as adopted in the consolidated financial statements (IFRS). Investments in subsidiaries are accounted for using the equity method. For more information on the accounting policy applied, and on the notes, please refer to the notes to the consolidated financial statements.

B GENERAL AND ADMINISTRATIVE EXPENSES

The employees of the company comprise only the members of the Management Board. The General and Administrative expenses comprised mainly of the remuneration of the Management Board and the Supervisory Board and other general expenses such as the auditor's fees. For the remuneration of the Management Board and Supervisory Board, reference is made to the Supervisory Board and the Remuneration Report in this annual report. The auditor's fee is further disclosed in note 33 of the consolidated financial statements

C INVESTMENTS IN SUBSIDIARIES

The movements in investments in subsidiaries were as follows:

(€ in thousands)	2022	2021
Balance as at 1 January	2,152,077	2,215,621
Result of subsidiaries	-79,208	-80,665
Transfer to stock compensation reserve	9,060	4,497
Currency translation differences	2,406	4,795
Other direct equity movements	2,662	7,829
Balance as at 31 December	**2,086,997**	**2,152,077**

A list of subsidiaries and affiliated companies prepared in accordance with the relevant legal requirements (the Dutch Civil Code Book 2, Part 9, sections 379 and 414) is deposited at the office of the Chamber of Commerce in Amsterdam, the Netherlands.

D SHAREHOLDERS' EQUITY

For the statement of changes in equity for the year ended 31 December 2022, please refer to Consolidated statement of changes in equity in the consolidated financial statements. Additional information on the shareholders' equity is disclosed in note 25 of the consolidated financial statements.

E OTHER RESERVES

(€ in thousands)	Legal reserve participation	Cumulative translation reserve	**Total legal reserve**	Stock compensation reserve	**Total other reserves**
Balance as at 1 January 2021	101,433	9,681	111,114	16,484	127,598
Currency translation differences	0	4,794	4,794	0	4,794
Fair value remeasurement of financial instruments	6,847	0	6,847	0	6,847
Stock compensation expenses	0	0	0	5,927	5,927
Transfers between reserves	-42,523	0	-42,523	-3,471	-45,994
Balance as at 31 December 2021	**65,757**	**14,475**	**80,232**	**18,940**	**99,172**
Currency translation differences	0	2,406	2,406	0	2,406
Fair value remeasurement of financial instruments	-3,090	0	-3,090	0	-3,090
Stock compensation expenses	0	0	0	10,532	10,532
Transfers between reserves	-26,622	0	-26,622	-9,581	-36,203
Balance as at 31 December 2022	**36,045**	**16,881**	**52,926**	**19,891**	**72,817**

Legal reserve participation

Legal reserves are the non-distributable reserves that are recorded for an amount equal to the restricted reserves of the company's subsidiaries and the cumulative translation reserve.

Stock compensation reserve

The stock compensation reserve represents the cumulative expense of issued stock options that have been granted but not exercised and restricted stock units that have not yet vested.

F INTERCOMPANY PAYABLES

Intercompany payables comprises loans provided by subsidiaries. The movement in the payable balance reflects the interest charge during the year. The interest rate on the loan during 2022 is based upon the applicable inter-bank offered rate plus a margin. When the applicable interbank rates are below zero, the interest charge is set at the margin of 0.5% (2021: 0.5%). Although no repayment period has been agreed the loan has a long-term nature.

G OFF-BALANCE SHEET COMMITMENTS

The company has a guarantee facility of €5 million, of which a total amount of €3.1 million has been issued (2021: €5 million and €2.7 million respectively).

The company has also issued several declarations of joint and several liability for various group companies, in compliance with section 403 of Part 9 of Book 2 of the Dutch Civil Code.

In addition, two German subsidiaries, TomTom Germany GmbH & Co. KG. and TomTom Location Technology Germany GmbH, apply the exemption as described in section 264b of the German Commercial Code (HGB) with regard to the publication of the annual financial statements.

The company forms a fiscal unity for corporate income tax and value added tax (VAT) purposes with several of its Dutch subsidiaries. Each company within the fiscal unity is jointly and severally liable for the fiscal liability of the fiscal unity.

H SUBSEQUENT EVENTS

There have been no subsequent events from 31 December 2022 to the date of issue of these financial statements.

PROPOSED APPROPRIATION OF RESULT

The Management Board proposes to add the net loss in full to the Accumulated result.

TomTom N.V.

Amsterdam, 3 February 2023

The Management Board	*The Supervisory Board*
HAROLD GODDIJN	DERK HAANK
TACO TITULAER	JACK DE KREIJ
ALAIN DE TAEYE	MICHAEL RHODIN
	MARILI 'T HOOFT-BOLLE
	GEMMA POSTLETHWAITE

FINANCIALS

Other information

STATUTORY PROVISION WITH RESPECT TO APPROPRIATION OF RESULTS

According to the company's Articles of Association, the company's result is freely at the disposal of the shareholders, provided that total shareholders' equity exceeds the called-up and paid-up capital of the company, increased by legal and statutory reserves.

STICHTING CONTINUÏTEIT TOMTOM

For a description of the Stichting Continuïteit TomTom, refer to the Corporate Governance section in this Annual Report.

AUDITOR'S REPORT

Reference is made to the Independent auditor's report section in this Annual Report.

To: the shareholders and Supervisory Board of TomTom N.V.

REPORT ON THE AUDIT OF THE 2022 FINANCIAL STATEMENTS INCLUDED IN THE ANNUAL REPORT

OUR OPINION

We have audited the 2022 financial statements of TomTom N.V. based in Amsterdam, the Netherlands. The financial statements comprise the consolidated and company financial statements.

In our opinion:

- the accompanying consolidated financial statements give a true and fair view of the financial position of TomTom N.V. as at 31 December 2022, and of its result and its cash flows for 2022 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;
- the accompanying company financial statements give a true and fair view of the financial position of TomTom N.V. as at 31 December 2022, and of its result for 2022 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- the consolidated balance sheet as at 31 December 2022;
- the following statements for 2022: the consolidated statements of income, comprehensive income, changes in equity and cash flows;
- the notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- the company balance sheet as at 31 December 2022;
- the company statement of income for 2022;
- the notes comprising a summary of the accounting policies and other explanatory information.

BASIS FOR OUR OPINION

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of TomTom N.V. (the company or the group) in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands.Furthermore we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INFORMATION IN SUPPORT OF OUR OPINION

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion and any findings were addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

Our understanding of the business

TomTom N.V. develops and sells navigation and location-based products and services, such as maps, traffic information, navigation software and personal navigation devices. TomTom is organized into a Consumer and a Location Technology segment. Within the Consumer segment TomTom offers consumer products in the form of portable navigation devices and mobile applications. Within the Location Technology segment TomTom provides maps, software and services that enterprise and automotive customers integrate into their applications.

We determined materiality and identified and assessed the risks of material misstatement of the financial statements, whether due to fraud or error in order to design audit procedures responsive to those risks and to obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

Materiality

Materiality	€5.3 million (2021: €5.0 million)
Benchmark applied	1.0% of revenue (2021: 1.0% of revenue)
Explanation	We determined materiality based on our understanding of the company's business and our perception of the financial information needs of users of the financial statements. We considered that revenue is the most appropriate metric to determine materiality. The metric and percentage applied remained equal to prior year as the business and key metrics did not change significantly.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements in excess of € 265,000, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

TomTom N.V. is the head of a group of entities. The financial information of this group is included in the consolidated financial statements.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

TomTom's processes are highly centralized and the majority of the transactions are initiated, recorded, processed and reported on central level. We have applied a centralized audit approach and all audit procedures are performed by the same team.

Our audit coverage for total assets and revenue can be summarized as follows:

- for total assets and liabilities our audit procedures achieved a coverage of 99.9%;
- for revenue our audit procedures achieved a coverage of 100%.

By performing the centralized procedures mentioned above at all components of the group, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion on the consolidated financial statements.

Teaming and use of specialists

We ensured that the audit team included the appropriate skills and competences which are needed for the audit of a listed client in the technology industry. We included specialists in the areas of IT audit (including cybersecurity), forensics, sustainability, impairment testing, pensions and income tax.

Our focus on climate-related risks

Climate-related risks can impact financial reporting. The Management Board summarized the company's commitments and obligations in relation to climate, and reported in the section 'Risk management and control' of the management report how the company is addressing climate-related and environmental risks. Furthermore, we refer to section 'Our impact – environmental footprint' of the management report where the company disclosed its assessment and implementation plans in connection to climate-related risks.

As part of our audit of the financial statements, we evaluated the extent to which climate-related risks and the company's commitments and (constructive) obligations, are taken into account in estimates and significant assumptions, especially in the area of impairment of goodwill. Furthermore, we read the management report and considered whether there is any material inconsistency between the non-financial information in section 'Our impact – Environmental footprint' and 'Risk management and control' of the Management Board and the financial statements.

Based on the audit procedures performed, we do not deem climate-related risks to have a material impact on the financial reporting judgements, estimates or significant assumptions as at 31 December 2022.

Our focus on fraud and non-compliance with laws and regulations

Our responsibility

Although we are not responsible for preventing fraud or non-compliance and we cannot be expected to detect non-compliance with all laws and regulations, it is our responsibility to obtain reasonable assurance that the financial statements, taken as a whole, are free from material misstatement, whether caused by fraud or error. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Our audit response related to fraud risks

We identified and assessed the risks of material misstatements of the financial statements due to fraud. During our audit we obtained an understanding of the company and its environment and the components of the system of internal control, including the risk assessment process and the Management Board's process for responding to the risks of fraud and monitoring the system of internal control and how the Supervisory Board exercises oversight, as well as the outcomes. We refer to section 'Risk management and control' of the management report for the Management Board's (fraud) risk assessment.

We evaluated the design and relevant aspects of the system of internal control and, in particular, the (fraud) risk assessment, as well as the code of conduct, whistleblower ('Open Ears') procedures and incident registration. We evaluated the design and the implementation of internal controls designed to mitigate fraud risks.

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption in co-operation with our forensic specialists. We evaluated whether these factors indicate that a risk of material misstatement due to fraud is present.

We incorporated elements of unpredictability in our audit, considered the outcome of our other audit procedures and evaluated whether any findings were indicative of fraud or non-compliance.

As in all of our audits, we addressed the risks related to management override of controls. For these risks we have performed procedures among others to evaluate key accounting estimates for management bias that may represent a risk of material misstatement due to fraud, in particular relating to important judgment areas and significant accounting estimates as disclosed in Note 3 to the financial statements. We have used data analysis to identify and address high-risk journal entries and evaluated the business rationale (or the lack thereof) of significant extraordinary transactions, including those with related parties. These risks did not require significant auditor's attention.

The following fraud risks identified did require significant attention during our audit.

Presumed risks of fraud in revenue recognition	
Fraud risk	We presumed that there are risks of fraud in revenue recognition. We evaluated that revenue recognition in the Location Technology segment in particular give rise to such risks, considering that this segment includes sales contracts where revenue recognition is based on estimates and assumptions that are complex and require significant management judgment.
Our audit approach	We describe the audit procedures responsive to the presumed risk of fraud in revenue recognition in the description of our audit approach for the key audit matter 'Revenue recognition Location Technology'.

We considered available information and made enquiries of relevant executives, directors, internal audit, legal, compliance and the Supervisory Board.

The fraud risks we identified, enquiries and other available information did not lead to specific indications for fraud or suspected fraud potentially materially impacting the view of the financial statements.

Our audit response related to risks of non-compliance with laws and regulations

We performed appropriate audit procedures regarding compliance with the provisions of those laws and regulations that have a direct effect on the determination of material amounts and disclosures in the financial statements. Furthermore, we assessed factors related to the risks of non-compliance with laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general industry experience, through discussions with the Management Board, reading minutes, inspection of internal audit and compliance reports, and performing substantive tests of details of classes of transactions, account balances or disclosures.

We also inspected lawyers' letters and we have been informed by the Management Board that there was no correspondence with regulatory authorities and remained alert to any indication of (suspected) non-compliance throughout the audit. Finally, we obtained written representations that all known instances of non-compliance with laws and regulations have been disclosed to us.

Our audit response related to going concern

As disclosed in section 'Going concern' in Note 2 'Basis for preparation', 'Capital' in Note 27 'Financial risk management' to the financial statements, and section 'In control and responsibility statement' in the management report, the financial statements have been prepared on a going concern basis. When preparing the financial statements, the Management Board made a specific assessment of the company's ability to continue as a going concern and to continue its operations for the foreseeable future.

If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion.

We discussed and evaluated the specific assessment with the Management Board exercising professional judgment and maintaining professional skepticism. We considered whether management's going concern assessment, based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, contains all relevant events or conditions that may cast significant doubt on the company's ability to continue as a going concern.

Based on our procedures performed, we did not identify material uncertainties about going concern. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern.

Our key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements. We have communicated the key audit matter to the Supervisory Board. The key audit matter is not a comprehensive reflection of all matters discussed.

In comparison with previous year, the nature of our key audit matter did not change.

Revenue recognition - Location Technology	
Risk	TomTom's Location Technology segment includes sales contracts where revenue recognition is based on estimates and assumptions that are complex and require significant management judgment. Inherent to the nature of estimates and assumptions is that these could be influenced by the Management Board, and consequently we identified the risk of fraud in revenue recognition (as mentioned in the section "Our audit response related to fraud risks"), specifically relating to: • the estimation of the total transaction price for contracts with customers; and • the estimation of the stand-alone selling price of various elements in bundled arrangements used for the allocation of the total transaction price to performance obligations. For the significant accounting policies and disclosure on revenue recognition of Location technology, reference is made to Note 5 and 6 of the consolidated financial statements.

Our audit approach	Our audit procedures include, amongst others, evaluating the appropriateness of the company's accounting policies related to revenue recognition accordance with IFRS 15 "Revenue from contracts with customers" and whether the accounting policies have been applied consistently and evaluated whether changes are appropriate in the circumstances, specifically how TomTom identified performance obligations of map subscriptions. In addition, we evaluated the design and implementation of internal controls related to completeness, accuracy and timing of the revenue recognized. For a sample of contracts and contract modifications we have obtained the assessment of the contractual terms and conditions and the appropriate accounting thereof, as prepared by the Management Board. We have reviewed this assessment and the contracts with the customers and assessed the accounting in accordance with IFRS 15. With respect to the estimation of the relative stand-alone selling price of various elements in bundled arrangements, we tested estimates of the Management Board of the stand-alone selling prices, using the latest available (historical) data and expectations. Furthermore, we evaluated the allocation of total transaction price to performance obligations based on the estimated stand-alone selling price for each performance obligation. With respect to the estimation of the total transaction price, we performed back testing to challenge prior year estimates and assumptions used by the Management Board. In performing our audit procedures on the revenue recognition related estimates, we maintained our professional skepticism. We obtained audit evidence from events occurring up to the date of the auditor's report to determine whether any events require adjustment to the financial statements. We evaluated the adequacy of the Company's disclosures related to revenue recognition and accounting estimates, particularly whether disclosures adequately convey significant judgments and the degree of estimation uncertainty.
Key observations	We verified that the Management Board has updated the assumptions and estimates used, based on the latest available (historical) data and expectations. We have evaluated that the assumptions and estimates used by the Management Board are within an acceptable range. Furthermore, we have verified that the accounting policies are properly applied and the assessment of performance obligations is appropriate. Based on our procedures performed, we did not identify material errors that require adjustment of the financial statements, including revenue and related disclosures, in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code.

REPORT ON OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The annual report contains other information in addition to the financial statements and our auditor's report thereon.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code for the management report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code and as required by Sections 2:135b and 2:145 sub-section 2 of the Dutch Civil Code for the remuneration report.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 and Section 2:135b sub-Section 7 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

The Management Board is responsible for the preparation of the other information, including the management report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information required by Part 9 of Book 2 of the Dutch Civil Code. The Management Board and the Supervisory Board are responsible for ensuring that the remuneration report is drawn up and published in accordance with Sections 2:135b and 2:145 sub-section 2 of the Dutch Civil Code.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS AND ESEF

Engagement

We were engaged by the Supervisory Board as auditor of TomTom N.V. on 24 April 2015, as of the audit for the year 2015 and have operated as statutory auditor ever since that date.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

European Single Electronic Reporting Format (ESEF)

TomTom N.V. has prepared the annual report in ESEF. The requirements for this are set out in the Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS on ESEF).

In our opinion, the annual report, prepared in the XHTML format, including the (partially) marked-up consolidated financial statements, as included in the reporting package by TomTom N.V., complies in all material respects with the RTS on ESEF.

The Management Board is responsible for preparing the annual report, including the financial statements, in accordance with the RTS on ESEF, whereby the Management Board combines the various components into a single reporting package.

Our responsibility is to obtain reasonable assurance for our opinion whether the annual report in this reporting package complies with the RTS on ESEF.

We performed our examination in accordance with Dutch law, including Dutch Standard 3950N 'Assurance-opdrachten inzake het voldoen aan de criteria voor het opstellen van een digitaal verantwoordingsdocument' (assurance engagements relating to compliance with criteria for digital reporting). Our examination included amongst others:

- obtaining an understanding of the company's financial reporting process, including the preparation of the reporting package;
- identifying and assessing the risks that the annual report does not comply in all material respects with the RTS on ESEF and designing and performing further assurance procedures responsive to those risks to provide a basis for our opinion, including:
    - obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance document and the XBRL extension taxonomy files, has been prepared in accordance with the technical specifications as included in the RTS on ESEF;
    - examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.

DESCRIPTION OF RESPONSIBILITIES REGARDING THE FINANCIAL STATEMENTS

RESPONSIBILITIES OF THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD FOR THE FINANCIAL STATEMENTS

The Management Board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Management Board is responsible for such internal control as it determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Management Board is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting framework mentioned, the Management Board should prepare the financial statements using the going concern basis of accounting unless the Management Board either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. The Management Board should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the company's financial reporting process.

OUR RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. The 'Information in support of our opinion' section above includes an informative summary of our responsibilities and the work performed as the basis for our opinion.

Our audit further included among others:

- performing audit procedures responsive to the risks identified, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion;
- obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control;
- evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board;
- evaluating the overall presentation, structure and content of the financial statements, including the disclosures;
- evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Communication

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the audit committee of the Supervisory Board in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

The Hague, 3 February 2023

Ernst & Young Accountants LLP

Signed by T. de Kuijper

SUPPLEMENTARY INFORMATION

Statement of income overview

(€ in thousands, unless stated otherwise; quarterly data unaudited)	FY 2019	FY 2020	FY 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	FY 2022
Revenue	700,759	528,185	506,926	128,449	132,578	136,303	139,013	536,343
Cost of sales	185,557	104,794	99,821	19,313	22,825	26,381	18,100	86,619
Gross profit	**515,202**	**423,391**	**407,105**	**109,136**	**109,753**	**109,922**	**120,913**	**449,724**
Research and development expenses - Geographic data	456,107	429,810	219,808	56,531	54,945	50,548	43,736	205,760
Research and development expenses - Application layer	127,871	137,580	146,209	39,365	43,658	45,768	42,713	171,504
Sales and marketing expenses	67,051	57,556	45,181	10,506	12,077	13,568	14,202	50,353
General and administrative expenses	95,130	86,155	89,098	22,567	54,539	17,823	24,791	119,720
Total operating expenses	**746,159**	**711,101**	**500,296**	**128,969**	**165,219**	**127,707**	**125,442**	**547,337**
Operating result	**-230,957**	**-287,710**	**-93,191**	**-19,833**	**-55,466**	**-17,785**	**-4,529**	**-97,613**
Financial result	-3,432	-7,307	6,329	-279	2,160	1,826	-889	2,818
Result before tax	**-234,389**	**-295,017**	**-86,862**	**-20,112**	**-53,306**	**-15,959**	**-5,418**	**-94,795**
Income tax (expense)	41,424	37,378	-7,791	-1,378	-1,670	-1,525	-3,367	-7,940
Net result[1]	**-192,965**	**-257,639**	**-94,653**	**-21,490**	**-54,976**	**-17,484**	**-8,785**	**-102,735**
Net profit from discontinued operations	825,852	0	0	0	0	0	0	0
Net result attributable to equity holders of the parent	**632,887**	**-257,639**	**-94,653**	**-21,490**	**-54,976**	**-17,484**	**-8,785**	**-102,735**
Margins								
Gross margin (%)[2]	74%	80%	80%	85%	83%	81%	87%	84%
EBIT margin (%)[2]	-33%	-54%	-18%	-15%	-42%	-13%	-3%	-18%
Basic number of shares (in thousands)	170,973	130,562	127,714	126,991	127,779	128,238	128,370	127,849
Diluted number of shares (in thousands)	172,880	131,706	129,430	128,739	129,356	130,027	130,314	130,118
Earnings per share								
Basic EPS (€)	-1.13	-1.97	-0.74	-0.17	-0.43	-0.14	-0.07	-0.80
Diluted EPS (€)	-1.13	-1.97	-0.74	-0.17	-0.43	-0.14	-0.07	-0.80

1. Fully attributable to equity holders of the parent.
2. Non-GAAP measure, refer to page 137.

Statement of cash flows overview

(€ in thousands, quarterly data unaudited)	FY 2019	FY 2020	FY 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	FY 2022
Operating result	-211,941	-287,710	-93,191	-19,833	-55,466	-17,785	-4,529	-97,613
Foreign exchange adjustments	-319	-4,887	7,904	1,392	4,574	4,340	-3,933	6,373
Depreciation and amortization	291,985	285,609	73,671	15,244	14,369	13,720	13,339	56,672
Change in provisions	-28,132	-4,336	-7,474	-590	29,745	-26,674	-4,953	-2,472
Equity-settled stock compensation expenses	4,533	6,437	5,934	1,774	2,713	3,113	2,932	10,532
Other non-cash movements	0	0	-46	0	-42	0	-27	-69
Changes in working capital:								
Change in inventories	3,461	-2,932	8,772	2,876	2,633	-306	-117	5,086
Change in receivables and prepayments	-5,353	13,741	17,883	-10,311	152	-924	1,919	-9,164
Change in liabilities (excluding provisions)[1]	52,369	-17,215	32,289	-6,018	3,108	30,005	-21,971	5,124
Cash flow from operations	**106,603**	**-11,293**	**45,742**	**-15,466**	**1,786**	**5,489**	**-17,340**	**-25,531**
Interest received	1,186	1,082	326	5	64	9	311	389
Interest paid	-2,311	-1,956	-1,716	-365	-307	-247	-264	-1,183
Corporate income taxes paid	-11,799	-8,013	-7,569	-1,107	-345	-1,376	-2,255	-5,083
Cash flow from operating activities	**93,679**	**-20,180**	**36,783**	**-16,933**	**1,198**	**3,875**	**-19,548**	**-31,408**
Investments in intangible assets	-11,416	0	0	-5,053	-24	-116	-78	-5,271
Investments in property, plant and equipment	-12,644	-6,298	-13,274	-1,258	-998	-1,141	-1,498	-4,895
Net cash inflow from business disposal	873,439	0	0	0	0	0	0	0
Dividends received	287	162	366	0	224	0	168	392
Change in fixed-term deposits	-222,579	79,650	-7,070	0	14,000	-80,000	45,000	-21,000
Cash flow from investing activities	**627,087**	**73,514**	**-19,978**	**-6,311**	**13,202**	**-81,257**	**43,592**	**-30,774**
Payment of lease liabilities	-15,615	-15,595	-14,785	-3,586	-3,599	-3,635	-3,549	-14,369
Repayment of capital	-750,949	0	0	0	0	0	0	0
Proceeds on issue of ordinary shares	7,448	2,484	4,561	1,464	1,650	937	0	4,051
Purchase of treasury shares	0	-16,569	-33,431	0	0	0	0	0
Cash flow from financing activities	**-759,116**	**-29,680**	**-43,655**	**-2,122**	**-1,949**	**-2,698**	**-3,549**	**-10,318**
Net increase/(decrease) in cash and cash equivalents	**-38,350**	**23,654**	**-26,850**	**-25,366**	**12,451**	**-80,080**	**20,495**	**-72,500**
Cash and cash equivalents at the beginning of period	252,112	213,941	231,520	205,820	180,652	193,364	113,808	205,820
Exchange rate changes on cash balances held in foreign currencies	**179**	**-6,075**	**1,150**	**198**	**261**	**524**	**-1,574**	**-591**
Cash and cash equivalents at the end of the period	**213,941**	**231,520**	**205,820**	**180,652**	**193,364**	**113,808**	**132,729**	**132,729**

[1] Includes movements in the non-current portion of deferred revenue presented under Non-current liabilities.

Reconciliation to free cash flow overview

(€ in thousands, quarterly data unaudited)	FY 2019	FY 2020	FY 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	FY 2022
Calculation of free cash flow								
Cash flow from operating activities	93,679	-20,180	36,783	-16,933	1,198	3,875	-19,548	-31,408
Investments in intangible assets	-11,416	0	0	-5,053	-24	-116	-78	-5,271
Investments in property, plant and equipment	-12,644	-6,298	-13,274	-1,258	-998	-1,141	-1,498	-4,895
Free cash flow from total operations	69,619	-26,478	23,509	-23,244	176	2,618	-21,124	-41,574
Free cash flow from discontinued operations	-3,866	0	0	0	0	0	0	0
Free cash flow[1]	**65,753**	**-26,478**	**23,509**	**-23,244**	**176**	**2,618**	**-21,124**	**-41,574**
Restructuring-related cash flow[2]	0	0	0	0	0	5,849	6,539	12,388
Free cash flow excluding restructuring[1]	**65,753**	**-26,478**	**23,509**	**-23,244**	**176**	**8,467**	**-14,585**	**-29,186**

1 Non-GAAP measure, refer to page 137.

2 Restructuring charges are related to the Maps realignment announced in June 2022.

PURPOSE

This section includes certain contextual information related to TomTom's ESG disclosures, included in the Our Impact chapter and the sections contained therein.

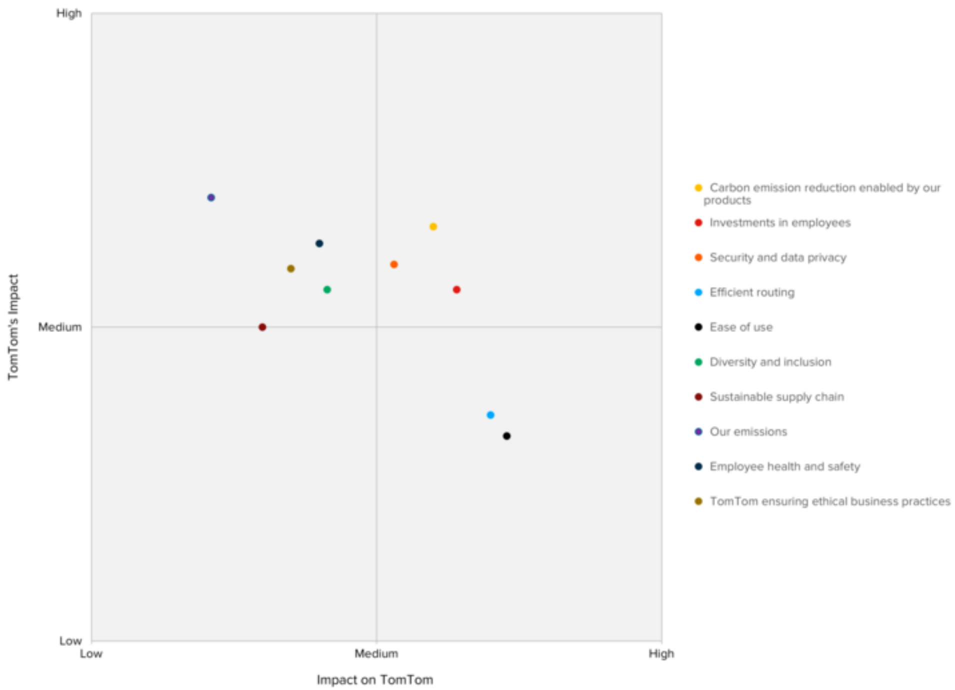
MATERIALITY ASSESSMENT

To ensure our efforts on ESG are aligned with our stakeholders' interests, we performed a materiality assessment. The annual materiality assessment ensures TomTom is aware of what is going on in the world, what is important for our stakeholders, where we can have an impact, and how we should increase our efforts. We conducted an extensive assessment in 2022, which consisted of several steps.

We started with a thorough process to identify our key stakeholders (both internal and external), followed by the interviewing or surveying of each of these stakeholders to receive their input on a broad range of themes that may be considered relevant for TomTom. This process resulted in a list of material topics. Our stakeholders were asked to rank these material topics by way of a broad survey, enabling us to create a materiality matrix.

Materiality matrix

Below is the materiality matrix that resulted from our stakeholder interactions.



The highest-ranking themes are related to our employees and our investments in them, our products and their potential to enable carbon emissions reductions, and data security and privacy governance.

Another important theme is the diversity and inclusion of our workforce, as it affects our employees' well-being and TomTom's attractiveness as an employer. Lastly, TomTom's own emissions are also considered a material theme, though stakeholders suggested emission-related themes to be less pertinent to TomTom throughout the materiality assessment.

Selection of themes

Based on our stakeholders' inputs, captured in the materiality matrix, we center our efforts around five themes. These themes are as captured from our stakeholders, with the exception of the pairs of product-related and emissions-related themes, which we both combined into one resulting in the following themes:

- Employer of choice;
- Diversity and inclusion;
- Technologies that reduce emissions and improve road safety;
- CO_2 emissions; and
- Security and data privacy.

KPI PERFORMANCE

For each of the material themes, we have defined a KPI which is discussed in detail in the Our Impact chapter. A summary of our performance is presented in the table below. The below table omits our performance on the KPI related to the material theme 'Technologies that reduce emissions and improve road safety' as this was outside of the assurance scope.

KPI	Target	Performance 2022
Employee Engagement Score	Top-in-class employer with 4th quartile benchmark score by 2025	Employee Engagement Score of 75 (average of two surveys)
Gender diversity ratio	30% female representation at company level; and 20% for senior management (director and above) by 2025	Female representation of 27% at company level; and 17% for senior management.
Scope 1 and 2 CO_2e emissions Scope 3 CO_2e cloud emissions	Carbon neutral on Scope 1 and 2 by 2030	1,860 tCO_2e Scope 1 emissions; 1,305 tCO_2e Scope 2 emissions; and 187 tCO_2e Scope 3 cloud emissions
Percentage of engineers certifiably trained on security	75% of engineers certifiably trained on security by 2025	8% of engineers certifiably trained on security in 2022 (9% cumulative by end of 2022)

Below, the methodology applied in measuring the performance on each of our KPIs is discussed in detail.

EMPLOYER OF CHOICE

This theme centers around TomTom's reputation as an employer of choice. This is an important determinant of success in attracting and retaining the right talent. This success is quantified by measuring employee engagement, which is selected as this theme's KPI. Our target for employee engagement is to be a top-in-class, scoring with 4th quartile benchmark to be reached by 2025

Measurement of employee engagement

Employee engagement is measured biannually, through an anonymous survey sent out to all employees (further referred to as 'the employees'). Contractors, as well as employees whom we know will be leaving the company, are excluded from the survey results.

For this survey, we use software called Glint, which is widely used and also provides the Technology industry benchmark scores against which we measure our performance. Controls are in place to ensure a complete list of employees is shared with Glint, so that all employees are given the opportunity to respond to the survey. The outcome of the survey can range between 0 and 100.

DIVERSITY AND INCLUSION

The diversity of our workforce and the level of inclusion our employees experience are the central points of this theme. We have chosen one axis of diversity, gender, as an indicator for company-wide diversity. This allows us to measure progress on this theme. We have set a target of 30% female representation within TomTom, and 20% female representation for senior management, to be reached by 2025.

Measurement of diversity and inclusion

Data on our workforce is captured in our HR tool, which includes gender data. For the measurement of this KPI, employees with both fixed as well as temporary contracts are considered. Our HR analytics department reports on the gender representation of our company.

Our employees can identify themselves as male, female, and non-binary, and have the option to withhold from disclosing their gender should they prefer so. Less than 1% of our workforce prefers not to disclose their gender identity or identifies as non-binary.

Senior management is defined as director and above (i.e., grade 19 and up) as administrated in our HR tool.

TECHNOLOGIES THAT REDUCE EMISSIONS AND IMPROVE ROAD SAFETY

This theme centers around the positive impact our products and services can have on reducing emissions and improving road safety. Even though we have set a KPI related to this theme, we are in the process of developing a methodology to determine the total CO_2 savings enabled by our traffic product. These calculations are complex and based on a wide variety of assumptions, and are yet to be matured. As such, we do not report in detail on the net CO_2 reduction enabled by our traffic product in 2022, and have not set a longer-term target yet.

Measurement of emission savings

Our traffic services enable our users to avoid traffic jams and drive at a more fuel-efficient, constant speed. To estimate the impact of our traffic services and the enabled reduction of carbon emissions, we randomly sampled 50,000 trips with different lengths. Throughout these anonymous calculations, a safety, security, and privacy-by-design approach is used to ensure user privacy, security, and safeguarding of personal data.

We combined the sampled trip data with the average consumption of trips independent of trip length or duration, or speed. Based on external research data, fuel efficiency for internal combustion engines is most efficient in the range between 50km/hour and 80km/hour. We can calculate the average trip distance and speed, both for drivers receiving our traffic services as well as drivers that do not use our traffic services. Subsequently, we can estimate the average CO_2 emission saved per driven kilometer.

This average figure is then upscaled by the observed total number of kilometers our traffic services users drive annually. In this calculation, we take into consideration the percentage of journeys that experience traffic congestion. As a result, the total savings are determined, under the assumption that users receiving our traffic services have also made use of these traffic services.

The preliminary estimates show that by using our traffic services, the CO_2 emissions per driven kilometer decrease. This gross effect of driving at a more optimal speed is partially offset by the driving of a potentially longer route. Even so, the preliminary estimates further indicate that the overall CO_2 savings from our traffic services exceeds our combined Scope 1 and Scope 2 emissions.

CO_2 EMISSIONS

This theme is centered around the emissions originating from our day-to-day operations. Based on the conducted materiality assessment, it appears stakeholders consider TomTom's own emissions a lesser material theme for TomTom. Nevertheless, we deem it our responsibility to minimize our environmental footprint and, therefore, consider our CO_2 emissions to be an important KPI. We have set a target to become carbon neutral in relation to our Scope 1 and Scope 2 emissions by 2030.

We started reporting on our emissions in 2021, which was a first step in disclosing the emissions computed in accordance with the methods set out in the GHG Protocol. Under the GHG Protocol, emissions are categorized into Scope 1, 2, and 3. Scope 1 focuses on direct emissions, mainly from company facilities and vehicles. Scope 2 captures indirect emissions resulting from purchased electricity, district heating, and cooling. Scope 3 focuses on all other indirect emissions that occur in a company's value chain, both upstream and downstream. As a first step toward capturing our Scope 3 emissions, we are reporting on the emissions from our cloud computing usage.

Aside from categorizing emissions into three scopes, the GHG Protocol also provides guidance on how to set organizational boundaries as regards to emissions reporting. We report on emissions from all entities over which we have operational control, as per the organizational boundary-setting methodology under the GHG Protocol. Consequently, our reporting includes emissions from owned as well as leased assets.

Measurement of Scope 1 emissions

The reported Scope 1 emission figures have been carefully computed. Due to limited real-time data availability, we have applied diverging methodologies per emission source.

Under the GHG Protocol, several calculation methods are given. The most accurate reporting is achieved by using the asset-specific method, which considers actual emissions from individual assets. This method requires detailed consumption data. Should these data not be available, the average-data method allows us to calculate emissions from assets using externally sourced emission factors and intensities. Figures for most sources of emissions are computed using a combination of the asset-specific and average-data method, as applicable.

Facilities

A portion of our Scope 1 emissions originate with fossil fuel consumption for office heating and fugitive refrigerant. These emissions are estimated using actual consumption data for all of our offices in the Netherlands, our Lebanon, NH, office, our offices in Lodz, and a few minor offices. During 2022, there were no leakages of refrigerants reported for these offices.

For offices and leased coworking spaces for which we do not have actual consumption data, we compute emissions using the average-data method. We use the most recent available figures from the U.S. Energy Information Administration's (EIA) Commercial Buildings Energy Consumption Survey (CBECS) as our main source of office energy intensity, adapting the figures to account for differing climates across our global footprint. Energy intensity figures are multiplied by gross leasable floor space, to arrive at emission estimates.

Vehicle fleet

Our vehicles also contribute to our Scope 1 emissions. We operate a fleet of leased passenger vehicles and an array of specialist MoMa vehicles.

We collected consumption data for all MoMa vehicles and the vast majority of leased passenger vehicles. Fuel consumption is converted to emissions using established emission factors per fuel source. For four of the 254 passenger vehicles, emissions were estimated using average vehicle emissions across our fleet, as consumption and mileage data was not available.

Emission factors and important other assumptions

As per the GHG Protocol, we have prioritized the asset-specific method of calculating our emissions over other methods. Data on our consumption was calculated from bills, invoices, and (smart) consumption meters, where applicable.

As previously indicated, where consumption data was not available, we extrapolated actual usage or worked with consumption intensities, reported per gross leasable floor space and corrected for applied heating and cooling methods, localized climate, and building use. These consumption intensities were gathered from the EIA's most recent CBECS study, while correcting for localized climate was mainly done using EIA data and data from European Climate Design.

To make the translation from consumption figures to emissions, we relied on emission factors for each type of consumed fuel as reported by the U.S. EIA. In applying the reported emission factor for natural gas, which was based on gigajoules, our natural gas consumption was translated to gigajoules using net calorific values per cubic meter as reported by the Netherlands Enterprise Agency.

Measurement of Scope 2 emissions

Scope 2 includes our indirect emissions from purchased electricity and district heating. These emissions center around our office locations, both owned and leased.

Facilities

Actual consumption data was available for our offices in the Netherlands, our Lebanon, NH, office, our offices in Lodz, and a few minor offices. For the offices for which we could not obtain actual data, we used average-data formulas to estimate energy consumption for other offices. Consumption was estimated by using energy intensity figures from EIA's CBECS and gross leasable floor area data. This is in line with the GHG Protocol. We aim to strengthen our data collection in 2023 to further improve data accuracy and consistency.

Having collected or estimated consumption figures, our emissions from purchased electricity and district heating are computed using grid average emission factors per location. Since we employ renewable energy certificates for our offices in the Netherlands, Belgium, Poland, and some other locations, the GHG Protocol demands us to report on Scope 2 emissions using two methods. Using the market-based method, we take these certificates into consideration, thereby lowering our overall footprint. Conversely, the location-based method does not allow for the consideration of contractual instruments.

Emission factors and important other assumptions

Data on the consumption of electricity, heating, and cooling, was collected from (smart) consumption meters, invoices, and bills, where applicable. For offices for which we were not able to collect actual consumption data, we made use of consumption intensities, corrected for applied heating and cooling methods, local climate, and building use, from the EIA's most recent CBECS study. Corrections for local climate where made using assumed climate regions gathered from the EIA and data from European Climate Design.

To convert consumption data to emissions, we apply grid average emission data from a multitude of local sources. For our offices in Europe, we leverage data from the European Environment Agency, while U.S. grid average emissions are gathered from the U.S. Environmental Protection Agency. Similarly, grid average emissions from local national bodies were used for other countries. In all, locale-specific grid average emissions were used for both emissions from purchased electricity as well as purchased heating and cooling.

Measurement of Scope 3 cloud emissions

Scope 3 cloud emissions include the Scope 1 and 2 emissions of our cloud providers. These emissions are measured via dashboards provided by our cloud providers in which we can monitor our emissions. In cases where emission data was not available for one or two months of the year, emission data were extrapolated based on current-year as well as previous years' usage trends.

SECURITY AND DATA PRIVACY

Security and data privacy are essential to our products and services. This theme centers around how we follow a safety, security, and privacy-by-design approach to ensure the full life cycle of our products and services is designed to enable user privacy, with security and control over their personal data.

We have established a Group Safety and Security function and implemented related processes and controls. Further, reporting is in place on relevant topics, such as the risk of security breaches in our information systems and our products and services. The Safety and Security Committee meets regularly and monitors the risks, required investments, and progress made to reduce safety and security risk.

It is very important for us that the safety and security of our products is of the highest standards, and security training is an important element to achieve this. We have several types of training available ranging from group-wide continuous security awareness trainings for all employees, to dedicated training for small groups. In 2022, we started a new program named Security Journey, that provides in-depth training on security tailored to the software engineers and the programs they are working on. The training is intended to help identify potential security vulnerabilities early and reduce the number of vulnerabilities in programs over time.

Measurement

The security training for our software engineers consists of several learning paths. Each learning path contains a variety of modules. For example, the white belt (foundational) training path contains 16 modules, and the yellow belt (in-depth security principles, attacks, tools and processes) training path consists of 20 modules. To obtain the belt, all these modules must be completed. As a minimum, our software engineers working on customer-facing applications have to complete the white and yellow belt path. Depending on the specific roles or types of code being used, our software engineers have to follow additional learning paths. For our KPI, we only track the training paths that are applicable to all software engineers. In case a belt is completed and the training path changes afterwards, the software engineers are still regarded as having successfully completed the training. The program that is relevant in assessing whether a software engineer completed the training is the program as it was at the time all modules were completed and approved.

The security training is online, and the platform offers dashboard capability that makes it possible to track which software engineers have completed their security training. Within TomTom, we split roles into software engineering versus non-software engineering roles, as administrated in our HR tooling. A software engineer at TomTom is defined as someone who designs, develops, tests, or deploys, and manages our software or services. For TomTom, software engineers are working in the clusters 'maps' and 'platform products'. For this KPI, we only include software engineers who are employed by TomTom. Contractors are excluded.

In order to calculate the percentage of software engineers that completed a white and yellow belt training path as per 31 December, we divide the number of software engineers that completed both belts by the employed software engineering workforce.

EXTERNAL ASSURANCE

EY has provided limited assurance on the section 'Materiality matrix' as included on page 126, and on TomTom's performance on the KPIs, as listed in the 'Performance 2022' column in the table on page 126. This covers the material themes:

- MT1 "Employer of choice";
- MT2 "Diversity and inclusion";
- MT4 "CO_2 emissions"; and
- MT5 " Security and Data Privacy".

Please refer to the Limited Assurance report of the independent auditor on page 133. No assurance has been requested on KPI MT3 "Technologies that reduce emissions and improve road safety". We aim to obtain assurance on MT3 in 2023.

EU TAXONOMY ANALYSIS ON TURNOVER

				Substantial contribution criteria		Do no significant harm criteria										
Economic activities	**Codes**	**Absolute Turnover (€ '000)**	**Proportion of Turnover**	**Climate change mitigation**	**Climate change adaptation**	**Climate change mitigation**	**Climate change adaptation**	**Water and marine resources**	**Circular economy**	**Pollution**	**Biodiversity and ecosystems**	**Minimum safeguards**	**Taxonomy aligned proportion of Turnover, 2022**	**Taxonomy aligned proportion of Turnover, 2021**	**Category (enabling category)**	**Category (transitional activity)**
A. Taxonomy eligible																
A.1. Environmentally sustainable activities																
Turnover of environmentally sustainable activities (Taxonomy aligned) (A.1)		0	— %													
A.2. Taxonomy eligible but not environmentally sustainable activities (non Taxonomy aligned activities)																
Turnover of Taxonomy eligible but not environmentally sustainable activities																
Total (A.1 + A.2)																
B. Taxonomy non eligible activities		0	— %													
Turnover of taxonomy non eligible activities		536,343	100 %													
Total (A + B)		536,343	100 %													

EU TAXONOMY ANALYSIS ON CAPEX

				Substantial contribution criteria		Do no significant harm criteria										
Economic activities	Codes	Absolute CAPEX[1] (€ '000)	Proportion of CAPEX	Climate change mitigation	Climate change adaptation	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy aligned proportion of CAPEX, 2022	Taxonomy aligned proportion of CAPEX, 2021	Category (enabling category)	Category (transitional activity)
A. Taxonomy eligible																
A.1. Environmentally sustainable activities																
Installation, maintenance, and repair of energy efficient equipment	F42, F43, M71, C16, C17, C22, C23, C25, C27, C28, S95.21, S95.22, C33.12	23	0.10 %	100 %	—	Y	Y	Y	Y	Y	Y	Y	0.10 %			
Installation, maintenance, and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	F42, F43, M71, C16, C17, C22, C23, C25, C27, C28	22	0.10 %	100 %	—	Y	Y	Y	Y	Y	Y	Y	0.10 %			
CAPEX of environmentally sustainable activities (Taxonomy aligned) (A.1)		45	0.20 %													
A.2. Taxonomy eligible but not environmentally sustainable activities (non Taxonomy aligned activities)		0	— %													
CAPEX of Taxonomy eligible but not environmentally sustainable activities		0	— %													
Total (A.1 + A.2)		45	0.20 %													
B. Taxonomy non eligible activities																
Turnover of taxonomy non eligible activities		28,056	99.80 %													
Total (A + B)		28,101	100.00 %													

[1] Absolute CAPEX includes additions to Property, plant and equipment under IAS 16, Intangible assets under IAS 38, as well as additions (including reassessments) to Right-of-use assets under IFRS 16.

EU TAXONOMY ANALYSIS ON OPEX

				Substantial contribution criteria		Do no significant harm criteria										
Economic activities	**Codes**	**Absolute OPEX[1] (€ '000)**	**Proportion of OPEX**	**Climate change mitigation**	**Climate change adaptation**	**Climate change mitigation**	**Climate change adaptation**	**Water and marine resources**	**Circular economy**	**Pollution**	**Biodiversity and ecosystems**	**Minimum safeguards**	**Taxonomy aligned proportion of OPEX, 2022**	**Taxonomy aligned proportion of OPEX, 2021**	**Category (enabling category)**	**Category (transitional activity)**
A. Taxonomy eligible																
A.1. Environmentally sustainable activities																
Installation, maintenance, and repair of energy efficient equipment	F42, F43, M71, C16, C17, C22, C23, C25, C27, C28, S95.21, S95.22, C33.12	62	0.02 %	100 %		Y	Y	Y	Y	Y	Y	Y	0.02 %			
OPEX of environmentally sustainable activities (Taxonomy aligned) (A.1)		62	0.02 %													
A.2. Taxonomy eligible but not environmentally sustainable activities (non Taxonomy aligned activities)																
OPEX of Taxonomy eligible but not environmentally sustainable activities		0	— %													
Total (A.1 + A.2)		62	0.02 %													
B. Taxonomy non eligible activities																
Turnover of taxonomy non eligible activities		363,071	99.98 %													
Total (A + B)		363,133	100.00 %													

1. Absolute OPEX includes direct non-capitalized costs that relate to research and development, building renovation measures, short-term lease, maintenance and repair, and any other direct expenditures relating to the day-to-day servicing of assets of property, plant, and equipment by the undertaking or third party to whom activities are outsourced that are necessary to ensure the continued and effective functioning of such assets.

To: the shareholders and Supervisory Board of TomTom N.V.

Limited assurance report of the independent auditor on TomTom's selected information

OUR CONCLUSION

We have performed a limited assurance engagement on selected indicators and selected disclosures relating to the materiality analysis (hereafter: the selected information) in the annual report for the year 2022 of TomTom N.V. at Amsterdam.

Based on our procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the selected information is not prepared, in all material respects, in accordance with the reporting criteria as included in the 'Reporting criteria' section of our report.

The selected indicators are included in section 'KPI performance' in the chapter 'Non-financial reporting information' on page 126 of the annual report and consist of:

- Employee engagement score
- Gender diversity ratio
  - TomTom all employees
  - TomTom senior management
- Scope 1 and 2 CO_2e emissions and Scope 3 CO_2e cloud emissions
- Percentage of engineers certifiably trained on security

The selected disclosures relating to the materiality analysis consist of the section 'Materiality matrix' in the chapter 'Non-financial reporting information' on page 126 of the annual report.

BASIS FOR OUR CONCLUSION

We have performed our limited assurance engagement on the selected information in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)' (Assurance engagements other than audits or reviews of historical financial information (attestation engagements)). Our responsibilities under this standard are further described in the 'Our responsibilities for the assurance engagement on the selected information' section of our report.

We are independent of TomTom N.V. in accordance with the "Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten" (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands.

This includes that we do not perform any activities that could result in a conflict of interest with our independent assurance engagement. Furthermore, we have complied with the "Verordening gedrags- en beroepsregels accountants" (VGBA, Dutch Code of Ethics).

We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

REPORTING CRITERIA

The reporting criteria used for the preparation of the selected information are the reporting criteria developed by TomTom N.V. and are disclosed in sections 'Identifying material themes' on page 14 and 'Non-financial reporting information' on pages 127-129 of the annual report.

The absence of an established practice on which to draw, to evaluate and measure the selected information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Consequently, the selected information needs to be read and understood together with the reporting criteria used.

UNASSURED CORRESPONDING INFORMATION

No assurance engagement has been performed on the selected information for the period prior to 2022. Consequently, the corresponding selected information and thereto related disclosures for the period before 2022 is not assured.

LIMITATIONS TO THE SCOPE OF OUR ASSURANCE ENGAGEMENT

Our assurance engagement is restricted to the selected information. We have not performed assurance procedures on any other information as included in the annual report in light of this engagement.

The references to external sources or websites are not part of our assurance engagement on the selected information. We therefore do not provide assurance on this information.

Our conclusion is not modified in respect to these matters.

RESPONSIBILITIES OF THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD FOR THE SELECTED INFORMATION

The management board is responsible for the preparation of reliable and adequate selected information in accordance with the reporting criteria as included in the 'Reporting criteria' section of our report. The management board is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

In this context, the management board is responsible for the identification of the intended users and the criteria being applicable for their purposes. The choices made by the management board regarding the scope of the selected information and the reporting policy are summarized in in section 'Non-financial reporting information' of the annual report.

Furthermore, the management board is responsible for such internal control as it determines is necessary to enable the preparation of the selected information that is free from material misstatement, whether due to error or fraud.

The supervisory board is responsible for overseeing the reporting process of TomTom N.V.

OUR RESPONSIBILITIES FOR THE ASSURANCE ENGAGEMENT ON THE SELECTED INFORMATION

Our responsibility is to plan and perform our limited assurance engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in a limited assurance engagement is therefore substantially less than the assurance obtained in a reasonable assurance engagement.

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS, regulations for quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other relevant legal and regulatory requirements.

The procedures of our limited assurance engagement included among others:

- Performing an analysis of the external environment and obtaining an understanding of the sector, insight into relevant sustainability themes and issues, relevant laws and regulations and the characteristics of the company as far as relevant to the selected information
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures on the selected information. This includes the evaluation of the reasonableness of estimates made by the management board
- Obtaining through inquiries a general understanding of internal control, reporting processes and information systems relevant for the preparation of the selected information, without testing the operating effectiveness of controls
- Identifying areas of the selected information with a higher risk of misleading or unbalanced information or material misstatements, whether due to error or fraud. Designing and performing further assurance procedures aimed at determining the plausibility of the selected information responsive to this risk analysis. These further assurance procedures consisted amongst others of:
    - Interviewing management and relevant staff at corporate level responsible for the strategy, policy and results relating to the selected information
    - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data in the selected information
    - Obtaining assurance information that the selected information reconciles with underlying records of the company
    - Reviewing, on a limited test basis, relevant internal and external documentation
    - Performing an analytical review of the data and trends
- Evaluating the consistency of the selected information with the information in the annual report which is not included in the scope of our assurance engagement

Eindhoven, 3 February 2023

Ernst & Young Accountants LLP

Signed by A.B.E. Laan

DEFINITIONS AND ABBREVIATIONS

Term	Definition
AC	Audit Committee
ADAS	Advanced Driver Assistance Systems
AFM	the Netherlands Authority for Financial Markets
Americas	the totality of North and South America
Asia Pacific	part of Asia which lies in the Pacific Ocean
AScX	the Amsterdam Small-Cap Index
API	Application Programming Interface
App	Application
B2B	Business to Business
B2C	Business to Consumer
BREEAM	Building Research Establishment Environmental Assessment Method
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditures
CBECS	Commercial Buildings Energy Consumption Survey
Code	the Dutch Corporate Governance Code
Company	TomTom N.V.
CO2	Carbon dioxide
CSR	Corporate Social Responsibility
CSRD	the Corporate Sustainability Reporting Directive
D&I	Diversity & Inclusion
DCC	The Dutch Civil Code
Decree	the Dutch Decree on the contents of Directors' Report
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EES	Employee Engagement Score
EIA	U.S. Energy Information Administration
EMEA	Europe, the Middle East and Africa
EMS	Environmental Management System
EPC	Environmental Product Compliance
EPS	Earnings Per Share
ERP	Enterprise Resource Planning
ESEF	European Single Electronic Format
ESG	Environmental, Social, and Governance
ETA	Estimated Time of Arrival
ETR	Effective Tax Rate
EU	European Union
EV	Electric Vehicle
FCD	Floating Car Data
FCF	Free Cash Flow
FIFO	First-in, First-out
FSC	Forest Stewardship Council-certified
FTE	Full-time Equivalent
Foundation	Stichting Continuïteit TomTom
GAAP	Generally Accepted Accounting Principles
GDPR	General Data Protection Regulation
GHG Protocol	Greenhouse Gas Protocol
Group	TomTom N.V. together with its subsidiaries
HD	High Definition
HR	Human Resources
HGB	Handelsgesetzbuch (German Commercial Code)
IA	Internal Audit
IAS	International Accounting Standards

Term	Definition
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
IP	Intellectual property
ISMS	Information Security Management System
ISO	International Organization for Standardization
KPI	Key Performance Indicator
LBS	Location-based Service
LEED	Leadership in Energy and Environmental Design
LTM	Last 12 Months
LT	Location Technology
LTI	Long-Term Incentive
MB	Management Board
MoMa	Mobile Mapping
MT	Material Theme
NBA	Koninklijke Nederlandse Beroepsorganisatie van Accountants (Netherlands Institute of Chartered Accountants)
NFRD	Non Financial Reporting Directive (2014/95/EU)
North America	The United States and Canada
NPE	Non-Practicing Entities
NVKS	Nadere voorschriften kwaliteitssystemen (Regulations for quality management systems)
OCI	Other Comprehensive Income
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturer
OPEX	Operational Expenditures
PDA	Personal Digital Assistant
PND	Portable Navigation Device
POI	Point of interest
R&D	Research & Development
RemCo	Remuneration Committee
RSU	Restricted Stock Unit
RTS	Regulatory Technical Standards
SaaS	Software-as-a-Service
SB	Supervisory Board
SD	Standard Definition
SDG	Sustainable Development Goals
SDK	Software Development Kit
SDO	Sensor Derived Observations
SelCo	Selection Committee
STI	Short-Term Incentive
TPEG	Transport Protocol Experts Group
W@TT	Working at TomTom
VAT	Value Added Tax
VGBA	Verordening gedrags- en beroepsregels accountants (Dutch Code of Ethics)
ViO	Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (Code of Ethics for Professional Accountants)
Wta	Wet toezicht accountantsorganisaties (Audit firms supervision act)
YoY	Year on Year

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IMPORTANT NOTICE

In this Annual Report 'TomTom' 'the company' and the 'the group' are sometimes used for convenience in contexts where reference is made to TomTom N.V. and/or any of its subsidiaries in general or where no useful purpose is served by identifying the particular company.

FORWARD-LOOKING STATEMENTS

This document contains certain forward-looking statements with respect to the financial condition, results of operations and business of TomTom and certain of the plans and objectives of TomTom with respect to these items. In particular, the words 'expect', 'anticipate', 'estimate', 'may', 'should', 'believe', 'outlook', and similar expressions are intended to identify forward-looking statements. By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future.

Actual results may differ materially from those expressed in these forward-looking statements, and you should not place undue reliance on them. For a discussion of factors that could cause future results to differ from such forward-looking statements, see also the Risk management and control of this Annual Report.

THIRD-PARTY MARKET SHARE DATA

Statements regarding market share, including the company's competitive position, contained in this Annual Report are based on outside sources such as specialized research institutes, industry and dealer panels in combination with management estimates.

The financial information in this report includes measures, which are not defined by generally accepted accounting principles (GAAP) such as IFRS. We believe this information, along with comparable GAAP measurements, gives insight to investors because it provides a basis for evaluating our operational performance. Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with GAAP. Wherever appropriate and practical, we provide reconciliations to relevant GAAP measures. The Non-GAAP measures are not audited.

Term	Definition
Operational revenue	is IFRS revenue adjusted for the movement of gross deferred revenue.
Gross margin	is calculated as gross profit divided by IFRS revenue.
EBIT	is equal to operating result.
EBIT margin	is calculated as operating result divided by IFRS revenue.
EBITDA	is equal to operating result plus depreciation and amortization charges.
EBITDA margin	is calculated as operating result plus depreciation and amortization charges divided by IFRS revenue.
Automotive backlog	is the cumulative expected IFRS revenue from all awarded Automotive deals.
Free cash flow	is cash from operating activities minus capital expenditure (investments in intangible assets and property, plant and equipment).
Net cash	is cash and cash equivalents plus cash held in fixed term deposits.
Gross deferred revenue	is deferred revenue before the netting of unbilled receivables[1]
Equity free cash flow yield	is free cash flow divided by the market capitalization (number of outstanding share capital multiplied by the share price) at year end.

[1] Deferred revenue reflects amounts not yet recognized as revenue as services still need to be delivered. Unbilled receivables represents amounts accrued for when a contractual right to invoice exists. When a single contract has both an accrual, based on contractual invoicing terms, and a deferral, because the underlying services are not yet fully delivered, the unbilled and the deferred positions are netted for presentation on the balance sheet.

Operational revenue

(€ in millions)	FY 2022	FY 2021
Automotive reported revenue	260	223
Movement of Automotive deferred revenue	36	43
Operational revenue	**296**	**266**

Deferred revenue

(€ in millions)	FY 2022	FY 2021
Automotive	431	395
Enterprise	12	42
Consumer	21	25
Gross deferred revenue	**464**	**462**
Less: Netting adjustment to unbilled revenue	25	21
Deferred revenue	**439**	**441**

Free cash flow

(€ in millions)	FY 2022	FY 2021
Cash flow from operating activities	-31	37
Investments in intangible assets	-5	0
Investments in property, plant and equipment	-5	-13
Free cash flow	**-42**	**24**
Restructuring-related cash flow	12	0
Free cash flow excluding restructuring	**-29**	**24**

EBIT(DA)

(€ in millions)	FY 2022	FY 2021
EBIT (operating income)	-98	-93
Depreciation and amortization	57	74
EBITDA	**-41**	**-19**

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