




# smart eye

## Annual Report 2021

Bridging the gap between  
humans and machines for a  
safe and sustainable future



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# Annual report 2021



# This is Smart Eye

Smart Eye is the global leader in Human Insight AI, technology that understands, supports and predicts human behavior in complex environments. Bridging the gap between humans and machines for a safe and sustainable future.

Today, our technology is embedded in next-generation vehicles, leading the way towards human-centric mobility through Driver Monitoring Systems and Interior Sensing solutions. Our Research Instruments offer unparalleled insights into Automotive, Aviation & Aerospace, Assistive Technology, Media & Marketing, Psychology and many more fields. Our subsidiary Affectiva is pioneering Emotion AI, connecting machine logic with human empathy to gain a deeper understanding of how consumers engage with their content, products and services, in automotive, media & entertainment, market research and beyond. Our subsidiary iMotions provides the world's leading biosensor software platform, that synchronizes data streams in real time from multiple sensors.

Smart Eye was founded in 1999 and is headquartered in Sweden with offices in the US, UK, Germany, Denmark, Egypt, Singapore, China and Japan. A publicly traded company since 2016, our customers include NASA, Nissan, Boeing, Honeywell, Volvo, GM, BMW, Geely, Harvard University, over 1,300 research organizations around the world, 70% of the world's largest advertisers and 28% of the Fortune Global 500 companies.



## Our Vision

### Bridging the gap between humans and machines.

As the leader in Human Insight AI, we develop technology that understands, supports and predicts human behavior in complex environments. Using machine learning, massive amounts of data and a multimodal approach, we connect logic and emotions to gain deep insights into how people interact with the world. Our vision is to create the most seamless connection possible between humans and machines, for a safer and more sustainable future.

## Our Mission

### Sustainable progress through science and technology for the benefit of all.

Our mission is rooted in the social, ecological and technological challenges faced by current and future generations. We're convinced that a world in better balance is within reach, and that our technology is a vital component for a framework connecting humans and machines in automotive, aviation, neuroscience, behavioral research, media analytics and many other fields. Enabling future innovations that will save and improve the quality of human lives everywhere.

# Smart Eye Core Values

## Human

We value human connection



Diversity and inclusion make our technology and our company better. We develop technology in the service of humanity — with creativity, empathy, and respect. We value an open, collaborative, warm and fun corporate culture that fosters individual well-being and makes our families a priority.

*We deliver value, but more importantly, we value being human.*

## Groundbreaking

We always learn and innovate



We are a company of firsts; therefore, we think beyond limitations to push the boundaries of what is possible. We are the world experts in what we do and with an open mind we never stop learning. We continuously strive to build things that have never existed before. Every technological leap forward is preceded by a mind thinking about the future.

*Every technological leap forwards is preceded by a mind thinking about the future.*

## Ethical

We have high integrity and ethics



We hold the highest standards for all we do, especially the accuracy of our science. We are committed to the ethical development and deployment of AI. We respect people's privacy, speak with clarity and transparency about our technology, and encourage others to do the same. It's not enough to have good intentions, it's what you do that defines you.

*With good intentions, it's what you do that defines you.*

## Perseverant

We get stuff done



Our curiosity, purpose and passion drive us to solve hard problems and take on new challenges. We work hard – not because we have to, but because we want to. We strive for excellence and we fundamentally believe when there is a will, there is a way.

*Impossible only means you haven't found a way yet.*

# Significant events of the year

13

JANUARY

## New design win from Chinese OEM

Smart Eye receives a new design win from one of China's largest OEMs – our third customer on the Chinese market. The order is for one new car model on a new platform, with an estimated revenue of SEK 50 million, based on forecasts of the estimated product life cycle.

11

MARCH

## New fleet solution launches

Smart Eye introduces its first fleet and aftermarket Driver Monitoring System with our proprietary, purpose-built hardware and industry leading software. Designed to be easily deployed within existing vehicle cabins or small volume OEMs.

17

JUNE

## Smart Eye acquires Affectiva

Smart Eye and Emotion AI pioneer Affectiva join forces to solidify our stronghold on the emerging market for Interior Sensing systems. By combining our industry-leading technologies and teams, we will bring to market unparalleled, automotive-grade Interior Sensing AI, better and faster than the competition.

29

JULY

## Four new design wins from a global North American OEM

The new order extends Smart Eye's DMS solution to four new car models, in addition to the three previously communicated design wins with the customer. The estimated revenue of the design wins is SEK 100 million, based on forecasts of the estimated product life cycle.

1

OCTOBER

## One new design win from a major Japanese OEM

Smart Eye announces a new design with a global Japanese customer, with an estimated revenue of SEK 25 million, based on forecasts of the estimated product life cycle. The order is for one new car model on an existing platform, which will go into production in late 2022.

25

NOVEMBER

## Smart Eye acquires iMotions

The combined companies bring together complementary expertise in sensing technologies and biosensor software to create the first powerhouse for analyzing emotional, cognitive and behavioral data, delivering holistic human insights.

**109 679**

NET SALES, TSEK

**83**

EQUITY RATIO %

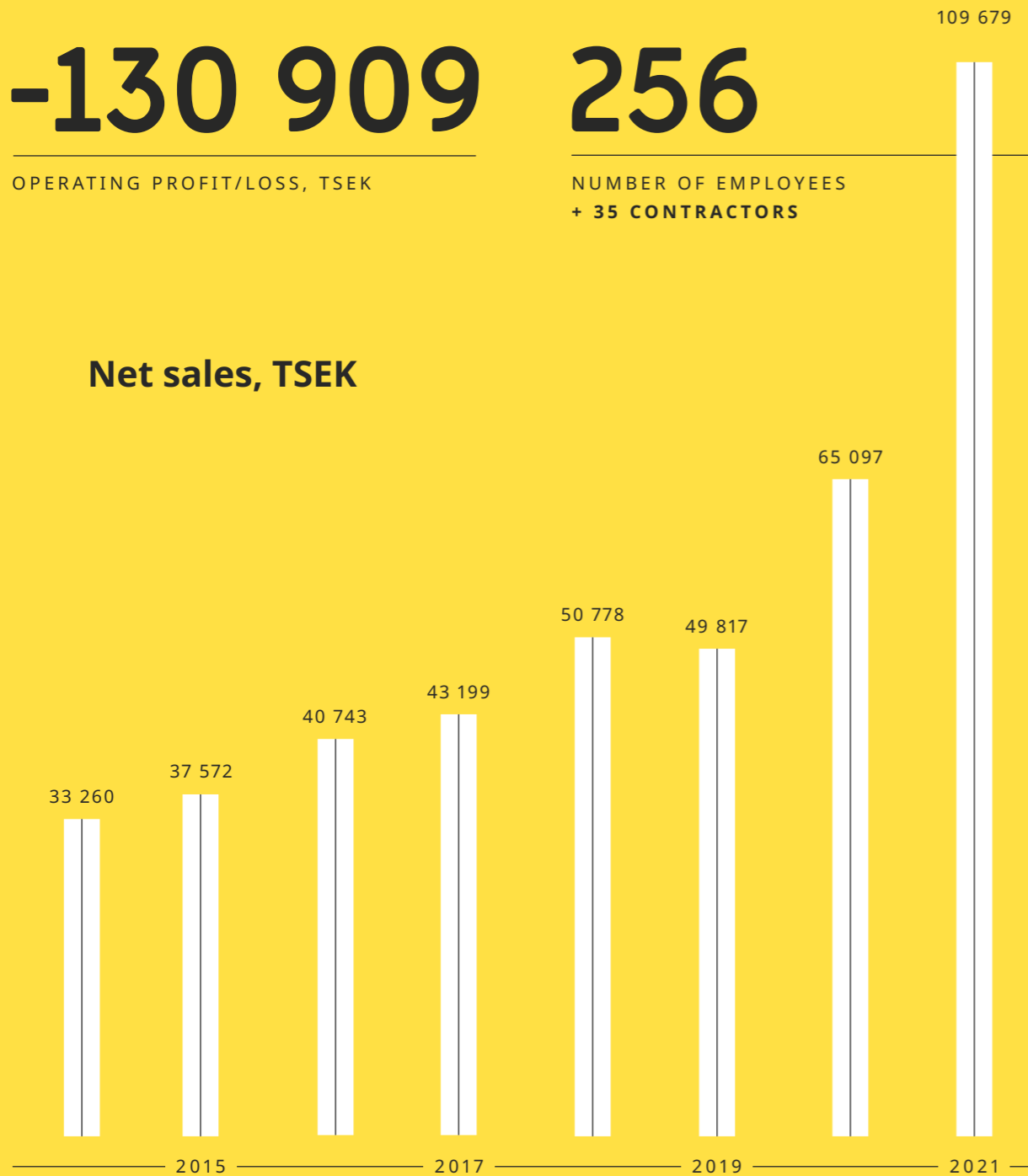
**-130 909**

OPERATING PROFIT/LOSS, TSEK

**256**

NUMBER OF EMPLOYEES  
+ 35 CONTRACTORS

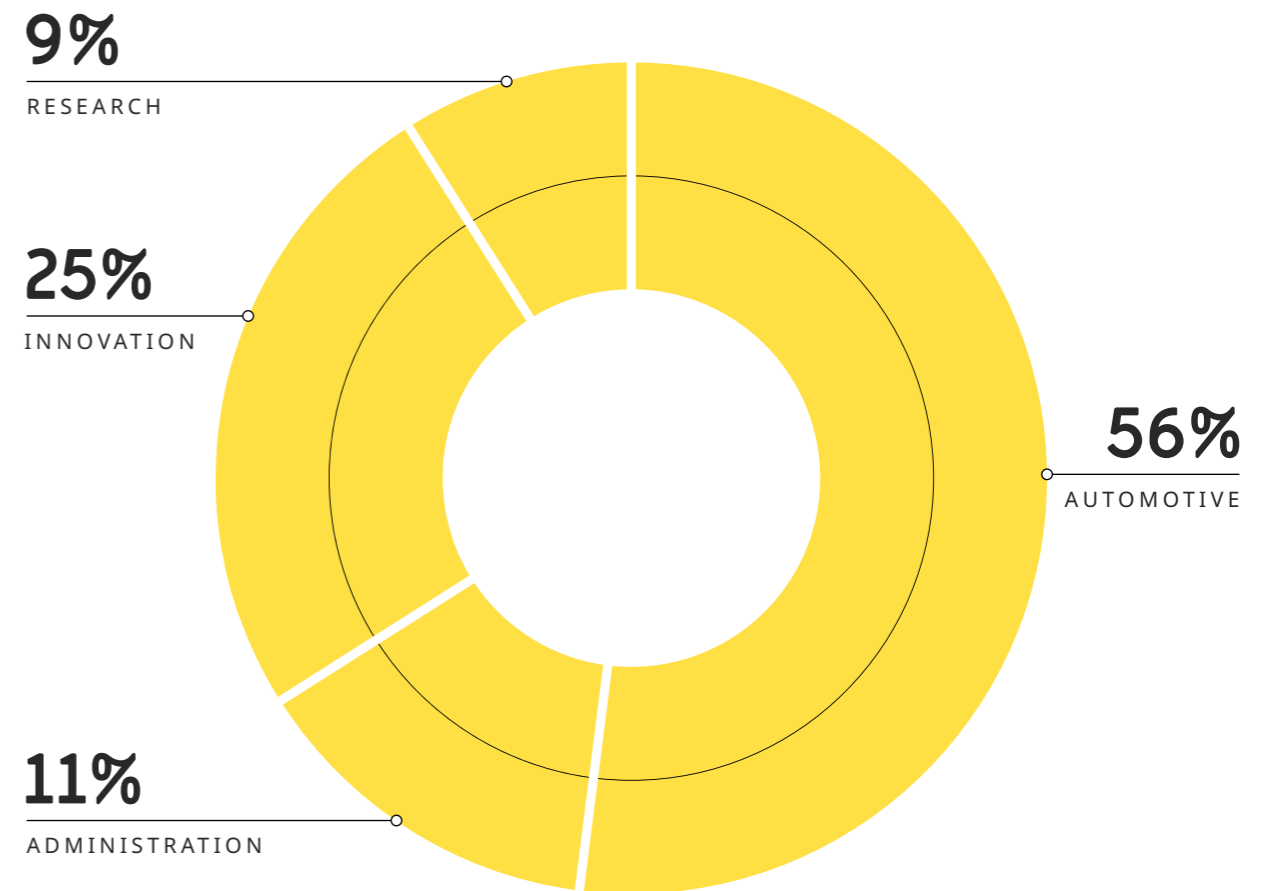
**Net sales, TSEK**



**Key figures**

TSEK	2021	2020	2019
Net sales, TSEK	109 679	65 097	49 817
Operating profit/loss, TSEK	-130 909	-77 156	-105 723
Profit/loss after tax, TSEK	-132 713	-77 557	-106 362
Equity per share, TSEK	65,46	21,20	16,64
Equity ratio, %	83	91	85
Number of employees	256	102	91

**Allocation of employees  
+ consultants**





# A year of expansion

2021 was a record year for Smart Eye on all fronts. There is clearly a pent-up demand for our technology across all of our business units. During the second half of the year, most of our markets started to come back strong, despite the continued effects of the pandemic and semiconductor shortage that hit the automotive sector hard. Nonetheless, we expect continued strong growth going forward. Furthermore, we are set up for the future with our acquisition of Affectiva and iMotions, two pioneers in their respective fields.

There are also risks on the horizon: new waves of the coronavirus might emerge, semiconductors are expected to be in short supply for at least throughout 2022, and geopolitical events in the wake of the Russian invasion of Ukraine would likely affect the global economy. However, we stand prepared and will continue to navigate world events. The bottom line is that our technology and products are in high and growing demand.

## Human Insight AI

Smart Eye started 23 years ago as an eye tracking company. Today, with the evolution of Driver Monitoring into Interior Sensing, we have broadened the scope. For example, in automotive, we now offer features such as face identification, detection of drowsiness, seatbelts, child left behind and analysis of driver and passenger facial expressions and reactions, and activities, such as eating and drinking.

The acquisition of Affectiva in June secured the world's leading Emotion AI, strengthening our position in Interior Sensing, and adding strong capacity in machine learning and data acquisition and

annotation to the company. With the acquisition of iMotions in November, we now have access to a multimodal software platform for combining physiological signals.

We call all this **Human Insight AI**, a whole new category of technology that helps understand, support and predict human behavior in complex environments. Our multimodal approach yields a new and unprecedented understanding of human behavior on a deep level.

## Long-term vision

The vision of the company is that Human Insight AI technology represents a quantum leap in how people and computers interact, an extension of the punched card of old times that led to the keyboard and monitor, the mouse that led to the touch screen and now conversational AI. We believe that Human Insight AI will complement existing human-machine interfaces and will have universal applicability. Human Insight AI has the potential to enable us to lead safer, healthier, happier and more connected lives. This is a grand vision that will take time to unfold.

Through our Behavioral Research arm we service a wide variety of customers and we constantly monitor the development of new emerging verticals. In the long run, Human Insight AI will simplify computer interaction everywhere and all the time.

## Strategic direction

For now, we continue to focus our efforts on Automotive and Behavioral Research. The explanation for the automotive focus is very simple: early on we realized that what we do is an important piece of the

puzzle to mitigate 1.2 million deaths and 50 million injuries in traffic every year. We have always believed that this will be supported by legislation, and now we see this materialize. Regulatory tailwind supports our industry and there will soon be a driver monitoring system in every car sold in Europe, with other regions following suit. Interior Sensing will be as common as seatbelts and airbags in the future. Automotive is the first broad mass market roll out of the technology, but there will surely be others.

Cars are getting more and more sophisticated. The two megatrends are electrification and the ever-increasing software content of the car. The total available processing power is increasing for each new car generation and the software – often AI-powered – is growing in complexity. Also, consumers are becoming used to seamless user experiences in the products they use, whether it be cars or electronic devices. These trends support the implementation of advanced sensors, deployed for interior as well as exterior use. Simply put – our cars are becoming smarter.

Our automotive strategy is twofold: a scalable software business model for high volume customers, complemented with a fleet hardware product for small to medium volumes.

Another important strategic axis is our Behavioral Research branch, with the dual purpose of running a profitable and growing business as well as monitoring the trends in various markets and academia. Through our Behavioral Research arm we service a wide variety of customers and we constantly monitor the development of new emerging verticals. Adding iMotions greatly increases our footprint in this space and sets us up for the very exciting possibilities emerging within the field of multimodal sensing. What this means is that we can understand more of human intent and behavior by measuring more modalities.

At some point in time, it may be the right decision to venture outside of Automotive and Behavioral Research, but not now. Instead, we intend to, in close collaboration with our customers, redefine the way the driver, passengers and vehicle collaborate, interact and understand each other.

## Execution of the strategy

We are operating close to full capacity in executing our strategic objectives for Automotive and Behavioral Research. Our team is focused on delivering existing programs to the automotive industry, while also investing heavily in Interior Sensing innovation to enable advanced safety and mobility experiences that enhance comfort, wellness and entertainment.

As a high-tech company we rely on our ability to understand the underlying trends and adapt our solutions accordingly. We are increasing the number and size of the teams, but the most important asset is our understanding of all the moving parts of our domain on a deep level. It helps us to make tactical decisions on how to invest resources for the best possible effect.

## Closing words

The automotive industry is under rapid change: the amount of software content of the car is increasing at a high rate, as is the complexity of the software. The automotive industry is competing with other sectors where similar software and machine learning competence is in high demand. This situation is good for Smart Eye, as we continue to attract world-class talent and own best-in-class hardware and software technology that is in high demand. We will continue to improve as a valued partner in the automotive tech ecosystem and continue to look for opportunities to deliver even more value to cars in the future. At the same time, our fast-growing Behavioral Research arm is the perfect vehicle for setting us up for new and exciting verticals beyond automotive.

**Martin Krantz,**  
CEO Smart Eye

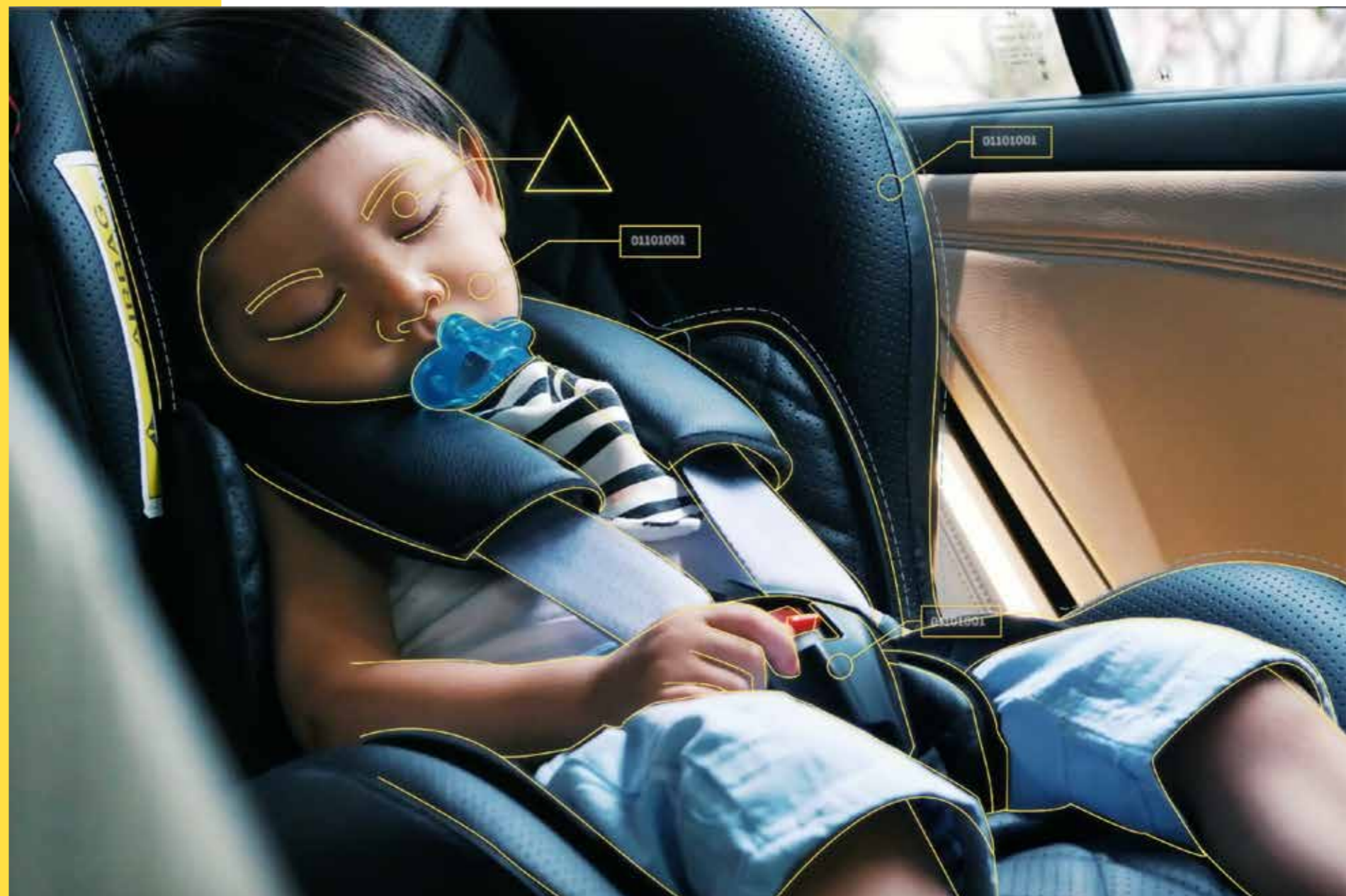




HUMAN INSIGHT AI: WHAT IS IT?

# See further with Human Insight AI.

In recent years, we have seen rapid advances in technology and AI, allowing for unprecedented insights into human behavior and powering human-to-machine interactions in entirely new ways. Sensor technologies have become more accessible and are easier and more cost effective to deploy. Combined with advanced compute processing power, new machine learning methodologies and access to massive amounts of data, we are entering a new era of intelligent systems – systems that assess complex human behaviors and states, and enable us to lead safer, healthier, happier and more connected lives. We call this Human Insight AI: technology that understands, supports and predicts human behavior in complex environments.



Smart Eye has created the new technology category of Human Insight AI, and with our subsidiaries Affectiva and iMotions we are positioned to become the global leader of this rapidly growing space.

Our multimodal approach is unique: we are the first to combine different sensor technologies to discover more than what meets the eye.

We decode nuanced human states and behaviors in a large variety of complex situations. This enables our clients to gain a deep and unique understanding of how people act, react and interact with technology and each other.

Applying novel deep learning methodologies and massive amounts of data, our Human Insight AI draws on multiple data sources in an unobtrusive, non-invasive manner. This provides real-time analysis with a high level of computational accuracy. Designed to be reliable, scalable, robust and able to run on any platform.

At Smart Eye we are pioneering unprecedented solutions with the power to transform any industry from automotive, aviation, assistive technology and behavioral science to media, marketing and beyond.



CORPORATE STRATEGY

## Enabling safer transport today and powering the experiences of tomorrow

In 2021, Smart Eye acquired Affectiva and iMotions to expand our technology footprint and market access. In doing so, we revolutionized the field by merging market leaders in Human Insight AI, all of which share a passion to humanize technology and have extensive experience developing sophisticated technologies that yield unique human insights.

For more than two decades, Smart Eye has been on a mission to better understand human behaviors with the world's best eye tracking systems. Extending this legacy, Smart Eye has now expanded to provide best-in-class facial analysis, emotion recognition, activity detection, multi-sensor data fusion, multimodal behavioral analytics and more — all developed by an organization known worldwide for successfully merging innovation with quality. Across industries, Smart Eye's Human Insight AI is being used to create a safer, more engaging, and more enriching experience for the world.

With this newly expanded Smart Eye family, our strategy remains consistent but accelerated: we are committed to preserving our position as the premier provider of Human Insight AI by maintaining an unwavering commitment to quality and innovation. Our commercial strategy to diversify growth across multiple market segments will yield steady growth immediately and in the years to come.

## Structured for Diversified Growth

Entering 2022, Smart Eye's market leadership in the automotive vertical solidifies with continued design wins that will provide exponential revenue growth in 2022 and beyond. Our commitment to expansion within the Human Behavioral Research field will also provide near-term growth for investors.





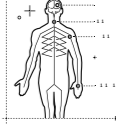
In support of this diversified growth approach, we have structured our business operations into two primary areas: Automotive and Behavioral Research.

Automotive consists of two business units:

- Automotive Solutions
- Applied AI Systems (AIS)

Behavioral Research consists of three business units:

- Affectiva Media Analytics
- Research Instruments
- iMotions

AUTOMOTIVE		BEHAVIORAL RESEARCH		
				
<b>Automotive Solutions</b>	<b>Applied AI Systems</b>	<b>Affectiva Media Analytics</b>	<b>Research Instruments</b>	<b>iMotions</b>
Sells & delivers Smart Eye's industry leading embedded Driver Monitoring & Interior Sensing solutions to automotive OEMs and Tier 1 suppliers for newly produced vehicles.	Produces & sells a complete aftermarket hardware and software Driver Monitoring System that can be easily deployed within existing vehicle cabins or small volume OEMs.	Develops the market leading cloud-based Emotion AI offering designed for advertising, television/movie and user experience testing, leveraging Affectiva's decade-long leadership in this area.	Delivers the best eye tracking solutions for advanced research and training applications, in both the academic and commercial sectors, including automotive, aviation, assistive technologies and behavioral science.	Provides the premier multimodal human behavioral research platform that fuses data from a large variety of sensors for unprecedented analytics for the academic and commercial sectors.

### Smart Eye Mantra for Success

As the pioneer of Human Insight AI, Smart Eye must effectively balance the needs of today's customers, with maintaining our scientific and thought leadership position to accelerate the future of mobility. To successfully achieve this, we center our strategic decisions on a three-word mantra: Innovate, Execute and Deliver.

### 1. Innovate

Innovation continues to be the lifeblood of Smart Eye and will solidify our leadership position for years to come. Staffed by preeminent researchers and bolstered by the Affectiva acquisition, our Research division has the mandate to explore cutting edge technologies, fuse modalities for improved accuracies and applications, and develop new capabilities — driving the future of AI-powered behavioral analytics and human machine interfaces in complex environments. Smart Eye's Research division has built a vast ecosystem of research partners and collaborators across industries and academia.

### 2. Execute

Executing on our product strategy keeps Smart Eye at the forefront of Human Insight AI. In close collaboration with partners and customers, we constantly assess emerging needs and develop new algorithms in anticipation of market demand. With a product development organization comprised of experienced machine learning and data scientists, seasoned software engineers, and deep embedded expertise, our solutions continue to deliver on the promise of today and power the vision of tomorrow.

### 3. Deliver

We deliver on customer commitments. In automotive we are in production with 5 OEMs across 3 continents, and our #1 priority is to power vehicles on the road. Our skilled team optimizes our technology to exact production requirements, meeting client needs with an absolute commitment to quality. With production engineering processes designed to meet the highest safety standards, we provide dedicated engineering services to ensure the highest quality solution is delivered on time and on spec.

# Pioneering multimodality to deliver cutting edge Human Insight AI in automotive and beyond

## The emergence of multimodal Human Behavioral Research

Human behavioral researchers have long understood the importance of fusing input from multiple sensors and signals to gain a deep understanding of human states, behaviors, activities, reactions and interactions. Termed “multimodality” this trend that emerged in academic research, is now rapidly gaining traction with commercial customers.

For decades, Smart Eye’s subsidiary iMotions has been providing human behavioral researchers with the world’s most sophisticated biosensor software platform. iMotions’ software in real-time synchronizes data streams from multiple sensors to deliver unique insights faster and more cost effectively than alternative approaches.

Emotion AI pioneer Affectiva uses computer vision and machine learning algorithms to analyze facial emotional expressions, reactions and human activities —signals that give insight into complex human emotional and cognitive states in context.

Combining iMotions and Affectiva technologies with Smart Eye’s premier eye tracking solutions, we are uniquely positioned to provide an end-to-end, multimodal approach to analyzing complex human behaviors in real world and challenging environments and delivering holistic human insights.

Smart Eye enters 2022 with an undeniable technological and commercial advantage as the Human Insight AI field continues to rapidly advance.

## The logical evolution of Driver Monitoring Systems to multimodal Interior Sensing

In parallel, the automotive industry has taken notice of the value provided from a multimodal approach.

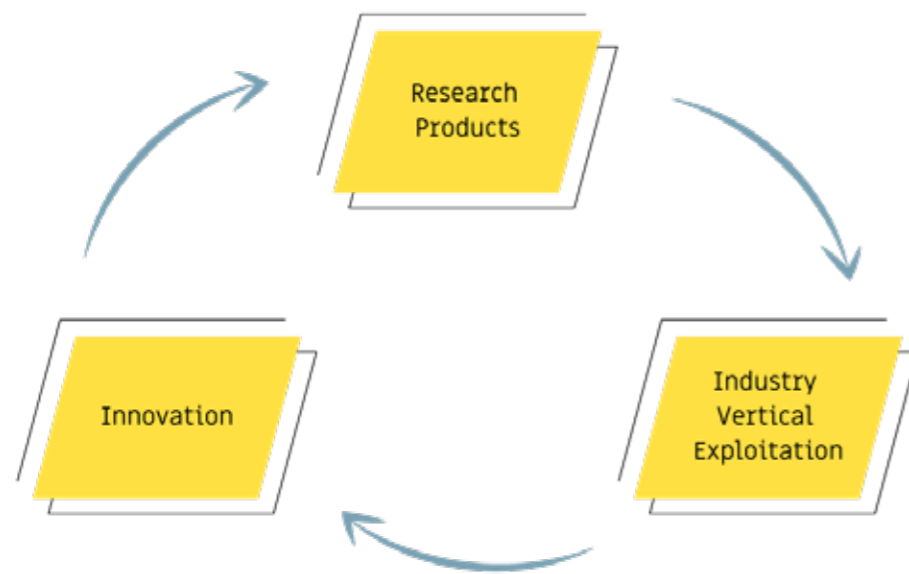
Car manufacturers are actively sourcing computer vision and AI-based Driver Monitoring Systems as cost effective and highly accurate solutions to meet legislative and regulatory safety requirements.

Leading OEMs and Tier 1s are now requesting to widen the aperture to gain a complete view of what’s happening in a vehicle. The rapidly emerging auto tech category of Interior Sensing AI combines Driver Monitoring with Cabin Monitoring, to understand the state of the driver, the cabin and the occupants in it.

An accurate understanding of human behavior in very complex automotive environments, necessitates a multimodal approach, that deploys multiple sensors in vehicles and fuses that input for higher accuracies and new insights.

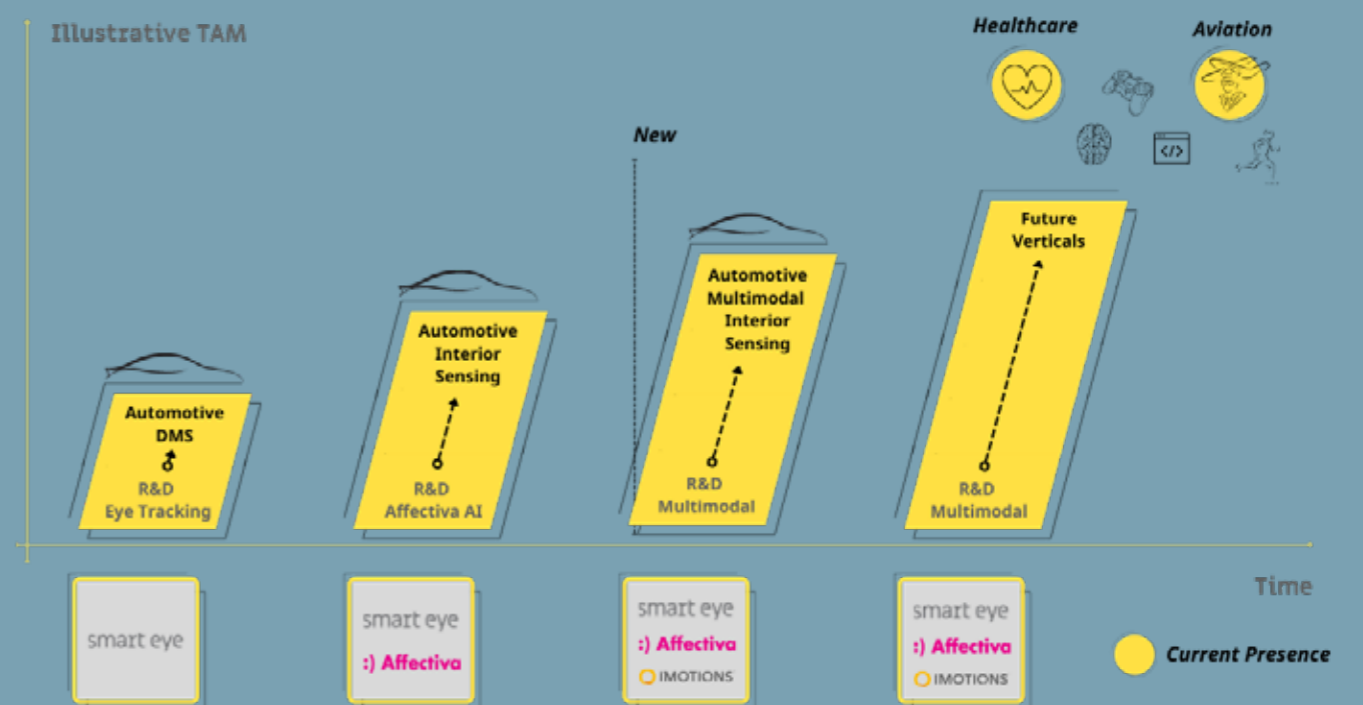
In anticipation of this continued market evolution, Smart Eye is once again leading the way for our automotive customers, forever changing automotive safety and the mobility experience.

With the automotive vertical as its initial growth market, Smart Eye is uniquely positioned to extend multimodal Human Insight AI to many other verticals including aviation, healthcare and beyond.



- Research customers drive early development
- Improved products open new industry verticals
- New industry verticals spur innovation
- This innovation is applied to the development of new offerings

## Leveraging presence in research market to expand into new industrial volume verticals





## INNOVATION

# Pioneering the technology of tomorrow

For over 20 years, Smart Eye has been developing solutions for understanding human behavior at the leading edge of innovation. But to maintain our competitive advantage, we need to keep exploring new ways to further enhance the algorithms that have made us the number one provider of Human Insight AI within automotive, behavioral research and beyond.

Through co-funded research and collaboration with academia, governmental institutions, automotive partners and more, we are constantly driving innovation forward towards new technological milestones.

## Development at the leading edge of technology

Proactive research and advanced development have always been critical to the success of each of Smart Eye's business divisions. Acting as a starting point for technological development, our Research team is ahead of the market, developing valuable new capabilities before they are even requested by customers. This enables us to continuously innovate and advance the state-of-the-art.

### Technological innovation across business verticals

Smart Eye's work within research is not limited to developing new products or features. To keep on top of technological advancement, we also make sure our existing solutions are regularly updated and enhanced. The research division is continuously experimenting with new machine learning,

computer vision and data science methodologies, and is always developing new algorithms to better support our core tracking capabilities — improving all Smart Eye products in the process.

Our research also helps build bridges between different Smart Eye's business areas, adapting technologies that are established within our automotive divisions to customers within research and academia, and vice versa.

## The starting point of future breakthroughs

The work of the research division has evolved Smart Eye's technology from classic computer vision methods to also include deep learning-based artificial intelligence (AI).

For the past couple of years, Smart Eye's research division can also be credited with extending our leading DMS technology to the entire cabin — making it possible to combine driver monitoring and cabin monitoring into Interior Sensing. Several of the Interior Sensing features first developed within Smart Eye's Research division have now moved into pre-production, ready to be installed in new car models coming to market.

### Mitigating data collection hindrances

In 2021, COVID-19 has caused delays and complications in several of the industries Smart Eye collaborates with. Likewise, the pandemic has affected the research we conduct within the company. Smart Eye's research largely depends on our ability to collect data of head, face, eye,

and body movements, and most of this research is conducted through in-person studies. As COVID-19 has required us to limit human contact, collecting large amounts of data has become more challenging.

In this aspect, Smart Eye has benefitted from our global presence, with offices and staff in various parts of the world. Since the timing for lockdowns and restrictions related to COVID-19 has varied in different parts of the world, we have been able to focus our data collection on sites currently less affected by the pandemic.

Meanwhile, we have been researching ways to mitigate similar data collection hindrances in the future. While Smart Eye's in-person data collection inevitably slowed down during the peaks of COVID-19, we have taken the opportunity to explore alternative ways to collect data. One way is through synthetic data generation.

### The unlocked potential of synthetic data

For several years, Smart Eye has been involved in research projects focusing on the generation of synthetic data. Like all technologies using deep learning methods, Smart Eye's Human Insight AI relies on access to very large amounts of data. However, data collection and generation is a very expensive and time-consuming process.

Synthetic data, on the other hand, is automatically generated and can help create many different variations of an image. In Smart Eye's case, it is already used to produce images of millions of unique faces for training of our algorithms. As a cost-effective way to accelerate network training, synthetic data is expected to become an increasingly common method of data generation in the future.

### Multimodal research: for deeper insight into human behavior

In order to increase our understanding of human behavior, Smart Eye uses multiple different sensors and modalities to measure how people act in complex environments. This multimodal approach allows us to study many different aspects of human behavior at once, enabling deeper insight than would be possible by only tracking a person's eye movements or heart rate, for example.

Smart Eye's research around multi-modal sensing is exploring how to effectively combine the output from multiple data streams into a more comprehensive understanding of human behavior. This method can be applied to all kinds of research and environments, including in vehicles for more accurate predictions and interventions based on the driver's state. Simultaneously, Smart Eye is researching potential new sensing technologies that could lead to an even better understanding of human behavior in the future.

## Organization

Smart Eye's Research division headquarters in Gothenburg, Sweden. Apart from conducting research within several parallel research projects, internally and externally, the team works on advanced development and collaborates with colleagues in the different Smart Eye business areas to complete technology for customers. Since 2017, the team has been led by Henrik Lind, who has decades of experience within research and the automotive industry, most recently as Technical Expert in Remote Sensing at Volvo Car Corporation.

### Integrating the acquired expertise of Affectiva and iMotions

Since Smart Eye's acquisitions of Affectiva in June 2021, and of iMotions in November 2021, the Research division is in the process of integrating the resources and skills gained through these acquisitions.

Moving forward, Affectiva's experience in data collection and annotation, machine learning, data synthesis and human facial analysis will be very valuable to Smart Eye's work in research. Likewise, iMotions' deep domain expertise in human behavioral research will be essential for our future development of multimodal sensing solutions.

The acquisitions of Affectiva and iMotions also expand Smart Eye's global presence and reinforce our connection to important academic institutions, such as the renowned Massachusetts Institute of Technology, where Affectiva was started.



## Strategic partnerships

For many years, we lent our expertise to research projects in collaboration with both customers and other market-leading software and hardware suppliers. With decades of deep expertise in automotive, we are in a position to advise our Tier 1 and OEM customers on what they need to build today and what they need to anticipate building in the future. Our credibility and proven track record, has also made Smart Eye a sought after collaborative partner for other suppliers.

These symbiotic partnerships involve the industry's leading producers of image sensors, optics, light sources, semi-conductors, and processor platforms. Smart Eye's collaborative work with partners often extends beyond research projects to joint demos, prototyping or marketing. In addition, we serve on the Euro NCAP Occupant Status Monitoring Group that is defining effective methods for testing Driver Monitoring Systems in new cars.

## Research based on customer collaboration

Smart Eye's research is largely based on our close collaboration and dialogue with customers. Customer input and requests influence which projects we focus our resources on, and we aim to support our customers early on in their research projects. These partnerships not only help drive innovation, but also give Smart Eye a strategic advantage by increasing our chances of being chosen to deliver our technology to the customer further down the lane.

In other instances, Smart Eye initiates research projects ahead of customer needs. By identifying what technologies and features will be requested by customers in the future, we are able to stay one step ahead of what the industry is looking for.



## Smart Eye's collaborative partners include:

**Ambarella**

**Freescale (NXP Semiconductors)**

**Omnivision**

**onsemi**

**Renesas Electronics Corporation**

**STMicroelectronics**

**Texas Instruments**

## Research projects in 2021

**In a number of parallel projects, Smart Eye conducts co-funded research and advanced development in various complex environments, including automotive. These projects are often in collaboration with partners and potential customers, including automotive OEMs, academic research organizations, governmental institutions, and other entities in the industry.**

### EURO NCAP TEST PROTOCOLS FOR DMS

Smart Eye is participating in the Occupant Status Monitoring (OSM) Group formed by Euro NCAP. This group is developing the tests and assessment protocols that Euro NCAP will use to rate the driver monitoring technology in new car models. DMS developers like Smart Eye are contributing their technical expertise by providing important behavioral indicators and initial testing protocols.

### INTOXICATION DETECTION

The Fit 2 Drive project develops algorithms to assess a driver's state, and detect whether they are under the influence of alcohol, or are inattentive. The goal of this project is to use head, eye and facial recognition to produce an algorithm capable of assessing a driver's state in real time. Smart Eye and VTI (Väg- och transportforskningsinstitut; "The Swedish National Road and Transport Research Institute") are collaborating on this project that is funded by FFI Vinnova.

### USE OF SYNTHETIC DATA FOR DMS

Smart Eye participated in the DRAMA and DRAMA-2 research projects that examined the use of synthetically generated data for training Driver Monitoring Systems. This research aimed to reduce the need for costly and time-consuming manual data collection, by supplementing it with automatically generated data.

The research projects were led by RISE (Research Institute of Sweden) and funded by FFI Vinnova, a collaboration between the Swedish government and automotive industry, which finances FFI (Fordonsstrategisk Forskning och Innovation, "automotive strategic research and innovation.")

### DMS AND ENHANCED TRUST IN ADAS

The Enhanced ADAS project examines how Driver Monitoring Systems can best integrate with Advanced Driver Assistance Systems (ADAS). The research aims to improve driver experience, acceptance and trust in assistance systems for enhanced safety and efficiency. The project is led by RISE and funded by FFI Vinnova.

### DRIVER INTENTION RECOGNITION

Project IRRA (Intention Recognition in Real Time) aims to generate results that enable future events to be predicted from driver actions. For example, whether the driver intends to overtake. Smart Eye's DMS and Interior Sensing technology is used in this project that is jointly managed with Volvo Cars and funded by FFI Vinnova.

### RE-ENGAGE DRIVER IN AUTONOMOUS VEHICLES

This interdisciplinary project combines UX and machine learning/AI. Using driver monitoring, the project is examining distraction in drivers of autonomous cars. The research is producing solutions to return control to the driver at the right time in the right way. Smart Eye is participating in the RE-ENGAGE project jointly with RISE and Volvo Cars.

### NEW DATASET FOR ENHANCED DRIVER AND CABIN MONITORING

Field Operation Test enhancement, (FOTe) is a joint project with Chalmers University of Technology in Gothenburg, Sweden. This project centers on enhancing video data captured from previous tests. The objective is that the project generates validation data that can be used to demonstrate that Smart Eye's algorithms produce safe, reliable and accurate results.

DEFINITIONS

**Eye tracking**

Eye tracking is a technology for measuring gaze and eye movement. Sensors enable the eye to be detected, the gaze calculated and eye movements tracked. By studying individual eye movements, alertness, attentiveness and focus can be assessed – offering insight into a person’s awareness and mental state.

Eye tracking is now an established technology that can be applied in an array of segments. In vehicle interior environments, it is used for functionality linked to the driver. In research and neuroscience, eye tracking is used for applications including diagnosing Alzheimer’s and Parkinson’s diseases. The aviation and aerospace industries use eye tracking for R&D and training. Eye tracking can also replace mice, and be used for computer interaction and gaming to enhance UX.

**Emotion AI**

Emotion AI (artificial emotional intelligence) analyzes facial expressions, reactions, and head and body movement to detect nuanced human emotions, complex cognitive states, activities, interactions, and objects people use. Affectiva created the new category of Emotion AI and is seen as the market leader. Affectiva’s technology is built using deep learning, computer vision, and massive amounts of real-world data.

**Driver Monitoring System (DMS)**

Driver Monitoring Systems are vehicle safety systems that are used to assess the physical and mental state of the driver, detecting distraction, fatigue or just general inattentiveness. When linked to other vehicle functionality, the system can generate impulses to alert the driver’s attention or even take control of the vehicle to slow it down – reducing the risk of car accidents and improving road safety.

**Automotive Interior Sensing**

Automotive Interior Sensing combines Driver Monitoring with Cabin Monitoring to gain a deep, human-centric understanding of what is

going on with the people inside the car. Just like a Driver Monitoring System, an Interior Sensing System is based on computer vision and AI algorithms, built with deep learning and massive amounts of real-world automotive data. But while Driver Monitoring Systems are focused on the driver, Interior Sensing Systems extends the intelligence to the entire cabin, using cameras to capture images of the entire car interior.

**OEMs and Tier 1 suppliers**

Automotive OEMs (Original Equipment Manufacturers) source components from subcontractors called Tier 1 suppliers. Tier 1 suppliers provide components based on products like Smart Eye’s DMS software, making Smart Eye a Tier 2 supplier.

**Design wins**

In some cases, OEMs can specify that Tier 1 suppliers should provide components that contain a specified subcontractor’s (Tier 2 supplier’s) products. Otherwise, Tier 1 suppliers can select the subcontractors they want to partner with themselves. In these cases, an OEM selects its supplier of a functional component through a procurement process with a Tier 1 supplier, who in turn contracts a Tier 2 supplier. These procurements can apply to one specific model at a time, or all cars and models on a given production platform simultaneously.

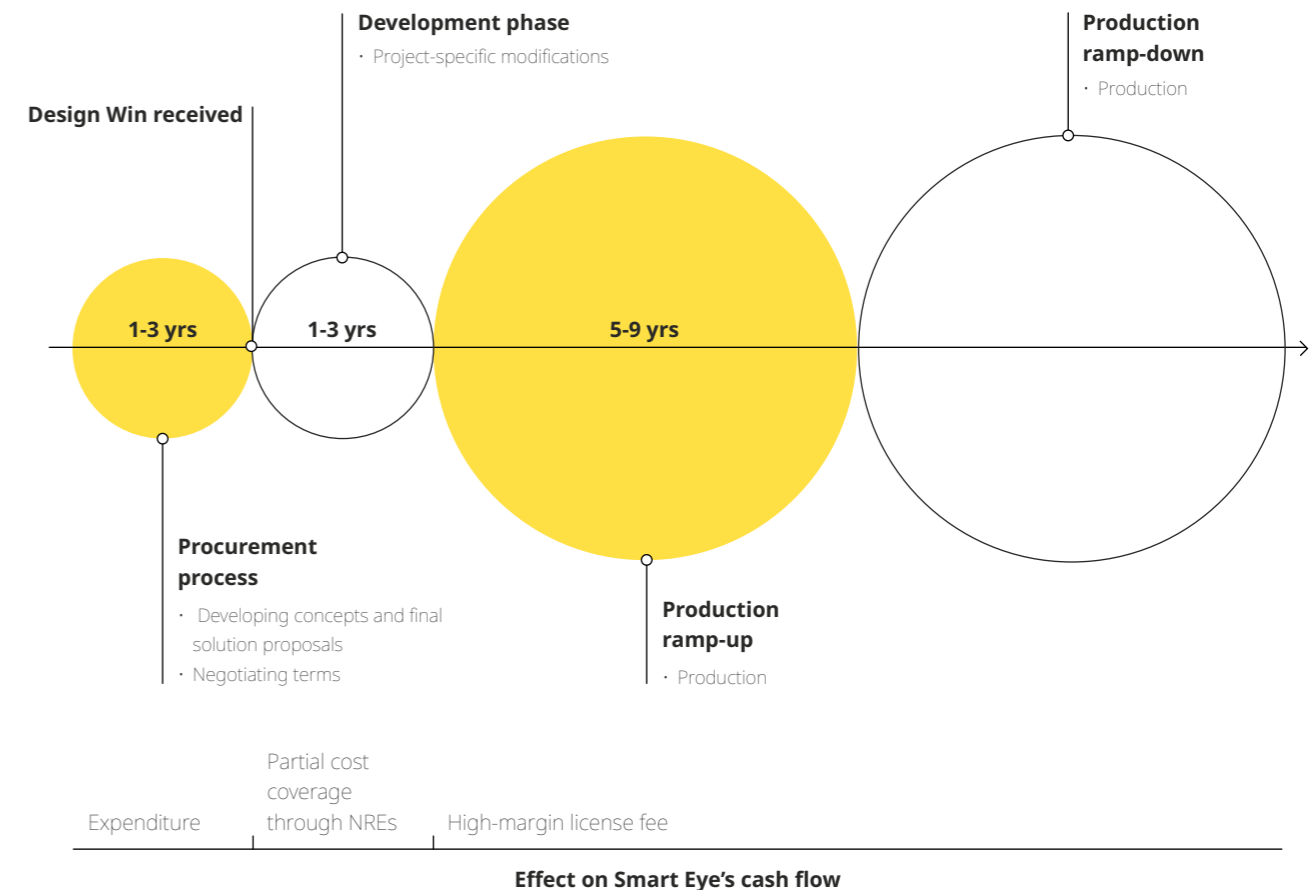
Procurement processes are usually ongoing for 9 to 20 months. The OEM then selects which supplier wins the contract. The secured contract is called a design win, and applies to one car model.

**Car model product lifecycles**

From securing a design win, it often takes between one and three years before shipments to the intended model actually begin. In turn the car model is often in production for up to seven years. The period a car platform remains in production for, often up to 14 years, is called its product lifecycle.



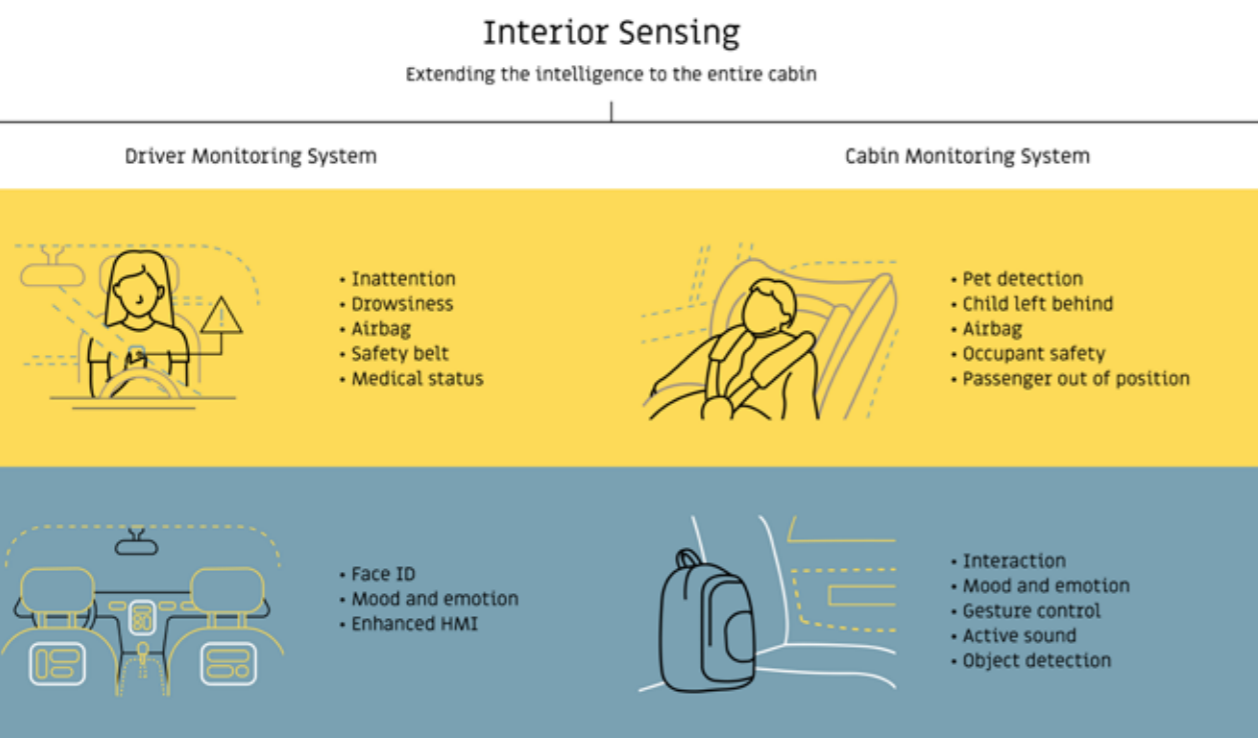
**Design win** Smart Eye receives a formal order to deliver software for a specific car model.



# Integrating the future in today's vehicles

Every 24 seconds a human life is lost in traffic. The majority of these accidents are caused by human error, such as driver distraction and fatigue, and can be prevented with the right technology. As the global leader in Driver Monitoring and Interior Sensing systems, Smart Eye's Automotive Solutions use sensors, computer vision and artificial intelligence to bring deep, human-centric insight into what goes on inside a vehicle.

For several years, Smart Eye has successfully delivered our proven Driver Monitoring System (DMS) software to premium car manufacturers. Following our acquisition of Affectiva in 2021, Smart Eye is also leading the development towards Interior Sensing systems – extending the intelligence to the entire cabin. By combining Smart Eye's deep technical expertise and Affectiva's pioneering Emotion AI with massive amounts of real-world data, we offer customers the most advanced Driver Monitoring and Interior Sensing solutions on the market.



## Offering

Smart Eye's Automotive Solutions division develops embedded multimodal Human Insight AI software for automotive applications and provides integration and testing of the software in the customer's target vehicles. The business area offers two complete solutions: Driver Monitoring System software and Automotive Interior Sensing software.

### Driver Monitoring System

For over two decades, Smart Eye has offered software for Driver Monitoring Systems to the automotive industry. As one of the earliest companies to develop automotive grade DMS, we have been delivering proven, robust software to premium car manufacturers for several years.

Over time, this technology has evolved from being centered around eye, gaze, and head tracking to now providing many additional features and functions that identify complex human states, activities and the objects people use. These range from AI-based detection of drowsiness, distraction, eating, drinking, speaking, cellphone use, hands off wheel, body key points and objects, to the analysis of facial expressions, reactions, mood and emotions.

This approach allows the vehicle to fully understand the driver's state in context – enabling even more advanced safety functions while also offering personalized convenience features.

### Typical DMS functionality detects:

- Distraction based on eye gaze and head direction
- Drowsiness based on eye and facial behavior
- Microsleep and sleep detection
- Activities such as eating, drinking, smoking, phone usage
- Sudden sickness

These functions need to be compliant with current and future global regulations and recommendations, including Euro NCAP.

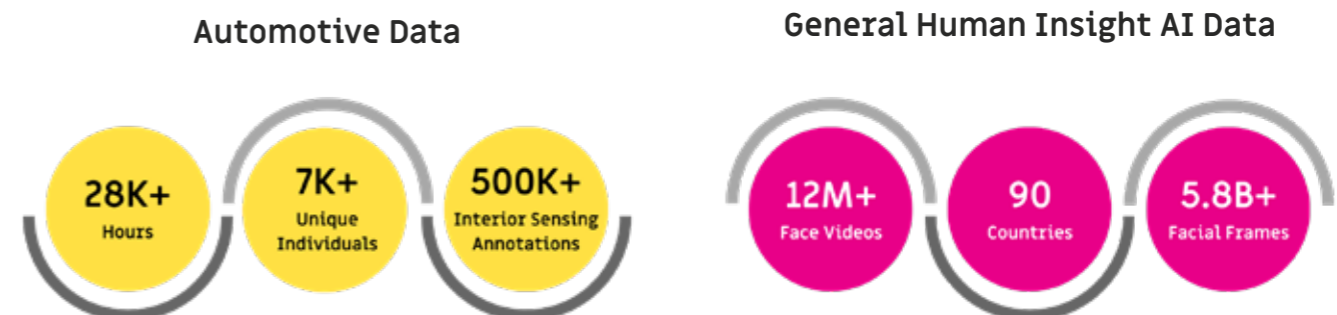
### Interior Sensing

Smart Eye's Automotive Interior Sensing software combines Driver Monitoring with Cabin Monitoring for deep, human-centric insight into what's happening in the entire vehicle. Drawing from our long experience of supplying software to the automotive industry, Smart Eye is able to offer the most mature Interior Sensing technology on the market. Our complete Interior Sensing package extends the safety and convenience functions found in our industry-leading DMS software to the full cabin, while enhancing and adding features that improve safety and the mobility experience of all passengers.

### Typical Interior Sensing functionality detects:

- Child-left-behind
- Reverse child seat in front passenger seat
- Enhanced distraction by other occupants
- Hands-off-wheel
- Mood and emotions of all occupants
- Speaking detection
- Phone/object usage
- Sudden sickness and out-of-position detection
- Seat belt
- Empty seats and out-of-seating position
- Body tracking
- HMI interactions

## Large and diverse real world datasets





## Product development strategy

### Core algorithms based on 23 years of experience

All Smart Eye solutions, including our Driver Monitoring and Interior Sensing software, are based on the same core algorithms, which have been continuously perfected over the course of 23 years. Each time new training data from the field is fed into the core algorithms, they are permanently enhanced – automatically improving all Smart Eye products as they are customized to different customer needs.

Just like all AI-based software, our solutions rely on very large quantities of data for training and validating the algorithms. With our subsidiary Affectiva's vast dataset of 12 million facial videos from more than 90 countries and over 40,000 hours of driving data from more than 6,000 unique individuals, Smart Eye has amassed the most unique and largest Human Insight AI data repository of its kind.

### Staying at the forefront of innovation

In order to satisfy the performance, availability and precision standards of the global automotive industry, our technology is developed according to Automotive SPICE processes. All software delivered to customers is Automotive Safety Integrity Level (ASIL) quality, fully ensuring its qualification for automotive safety systems. This gives Smart Eye a competitive advantage, as not all software suppliers on the market are able to live up to these quality standards.

Smart Eye's solutions are developed in close collaboration with the automotive industry. In-depth partnerships with OEMs and Tier 1s, as well as all relevant System On Chip (SOC) and Imager suppliers on the market, make sure our products evolve according to the needs of the industry. Meanwhile, Smart Eye is involved in several parallel research projects with multiple OEM and Tier 1 customers in order to define future roadmaps and product requirements.

## Customers

Automotive Solutions' target market is the automotive industry's OEMs and Tier 1 suppliers. Smart Eye currently works with more than 20 customers (Tier 1s) throughout Asia, Europe and North America, which in turn supply systems for high-volume passenger cars and commercial vehicles worldwide.

90  
Design Wins

14  
OEMs

1M+  
vehicles with Smart Eye's DMS on the road by mid-2022

CES 2022  
Innovation Awards honoree

## Market drivers

The market for Driver Monitoring Systems is rapidly growing. Over the last few years, DMS has gone from an exclusive feature found in premium cars, to an essential safety system.

### Legislation and regulation: making market growth mandatory

All over the world, legislators and influential organizations are recognizing the importance of DMS for increasing road safety. The US, the EU and China are all in different stages of implementing regulations that makes DMS mandatory in all new passenger vehicles. Meanwhile, Euro NCAP, the most influential new car assessment program in the world, has announced it will reward points for DMS in the 2023 update to its assessment protocol. These initiatives have only added to the urgency the car industry faces when it comes to the implementation of DMS.

Simultaneously, the legislation of DMS also drives growth in the market for Interior Sensing systems. Since the installation of DMS requires a base investment, many car manufacturers are looking to further increase the value of the system by adding cost-effective Interior Sensing features. Within a few years, Interior Sensing is expected to follow the same path as DMS, with certain functions becoming mandatory. In some countries, technology that detects children left behind in parked cars is already required in new vehicles.

Smart Eye is enabling this development by ensuring automotive grade DMS technology that is fully compliant with worldwide DMS legislation, as well as Euro NCAP's new car assessment protocol.

### Evolving Driver Monitoring into Interior Sensing

The evolution of Driver Monitoring into full Interior Sensing has become noteworthy in recent years. Through Interior Sensing, car manufacturers continue to make safety a top priority by extending safety functions to the entire cabin, while also offering convenience features that improve the mobility experience. Through our multimodal Human Insight AI, Smart Eye offers customers the opportunity to gain a deeper understanding of what is happening in a vehicle — put-

ting us in a leading position in the evolution towards Interior Sensing.

### Differentiation: the importance of standing out

Through AI-based sensing technologies, OEMs are given a whole new range of possibilities for customizing their car models. At the same time, the number of car manufacturers is constantly growing. Put together, this has made differentiation increasingly important within the automotive industry. OEMs are striving towards establishing a strong and unique brand through the intelligent features and capabilities they put into their car models.

Smart Eye's Human Insight AI helps drive this market trend by offering a vast number of functions for safety, comfort, wellness, entertainment and personalization. This allows our automotive customers to create unique user experiences that set them apart from other car manufacturers on the market.

## Market dynamics

Throughout 2021, the COVID-19 pandemic has continued to affect the automotive industry, most notably by contributing to hardware supply shortages which have halted production for some of Smart Eye's customers. While this has caused no noticeable decrease in demand for new automotive safety systems, the pandemic requires us to keep a robust predictive model for our commercial approach — both during and post COVID-19.

### Expansion based on customer demand

As the automotive market expands, so does the number of car manufacturers. Thanks to Smart Eye's position as one of the leading suppliers of automotive safety systems on the market, Automotive Solutions faces a fast increase in customer requests. In order to keep up with the growing number of customers, Smart Eye's Automotive Solutions is expanding our team and investing in hiring across all global Smart Eye offices.

### Diverse data helps avoid algorithmic bias

Smart Eye's automotive customers distribute their car models worldwide. This requires any technology put into those car models to take cultural differences into

account, including nuanced differences in behavior and variations in human appearance. Thanks to a very large and diverse database, with data from over 90 countries, Smart Eye is able to train and validate its software to minimize bias and be mindful of how human behavior differs across cultures.

**Flexible software with the market's smallest CPU footprint**

When developing automotive safety systems, there is no room for error or compromise. The software our Automotive Solutions division develops is flexible and hardware-agnostic. This gives us a competitive advantage as our software can be applied to almost any system, in any vehicle. This also requires that our software supports different camera positions requested by customers and a large variety of hardware available on the market today.

In order to satisfy customer demands, we not only ensure that our software meets the highest technical standards, we are also constantly improving and enhancing our technology. The result is Driver Monitoring and Interior Sensing Systems that offer the best performance in real time on the smallest CPU footprint on the market, while allowing for smooth adaptation to the varying needs of our customers.

## Organization

Automotive Solutions is led by Detlef Wilke, who joined Smart Eye in July 2021. Prior to taking on the role of Vice President of Automotive Solutions, Detlef Wilke successfully built up and shaped business and technology in the areas of Driver Monitoring and Interior Sensing in a number of parallel roles for 23 years at Aptiv (formerly Delphi).

As of December 2021, over 140 people are part of Automotive Solutions projects globally. In addition, we are growing the team and are actively hiring to keep up with demand from customers and to accelerate innovation. Smart Eye's growth through acquisitions and our global footprint are crucial assets for Automotive Solutions, allowing us to commit to more customers and bigger projects than any other of our competitors.

**The Affectiva acquisition: merging teams, data and technology**

With staff in all of our offices around the world, Automotive Solutions has a strong global presence. The geographic expansion of Automotive Solutions has largely been based on proximity to automotive customers but has also been furthered by Smart Eye's acquisition of Affectiva in June 2021.

We have merged Automotive Solutions with Affectiva's automotive teams in Boston and Cairo. This has given us access to Affectiva's deep expertise in machine learning, data science, data acquisition and annotation, its huge datasets, and its well-established footprint in AI innovation hub Boston.

By combining our best-of-breed technologies and two highly skilled and complementary teams, we are building an AI powerhouse that will bring to market unparalleled, automotive-grade Interior Sensing AI, better and faster than the competition.

## Business model and revenue recognition

By developing and delivering software to the automotive industry, Automotive Solutions receives three different types of revenue:

- Project-specific development compensation on securing a design win
- License fees for cars that go into series production
- Project-based revenue from Proof of Concept studies, reference designs or prototyping

When awarded one or several car model(s) from an OEM, Smart Eye is partly compensated for the development work following the design win in the form of NRE (non-recurring engineering) revenue. Once the car model(s) goes into production, Smart Eye also receives a high-margin license revenue per produced car for the full lifetime of the car model.

In addition to revenues from design wins, Smart Eye also gains project fees for prototyping and for the conceptual studies and reference designs the company executes for Tier 1s and OEMs.



Design wins per year (SEK m)	2015 - 2020	2021	2022	Total
Estimated revenues over product lifecycles from current design wins	2,100	175	50	2,325
Estimated revenues over product lifecycles from possible additional design wins with current car manufacturers on existing platforms	3,675	300	500	4,475
Estimated revenues over product lifecycles from current and possible additional design works with current car manufacturers on existing platforms.	5,775	475	550	6,800



# Better road safety – available on all markets

Driver Monitoring Systems have become an increasingly important safety feature — not just in newer passenger cars, but also for trucks, buses and the millions of cars already on the road. After all, drowsiness and distraction occur in all drivers, in every type of vehicle.

Applied AI Systems develops end-to-end Driver Monitoring Systems for fleet and aftermarket. Combining our purpose-built proprietary hardware integrated with Smart Eye's proven DMS software, we offer a plug-and-play product built on over 20 years of experience.

## Offering

As more premium OEMs started adopting DMS in their new car models, a new market for the technology emerged. The demand for complete, out-of-the-box Driver Monitoring Systems, including both hardware and software, has been steadily increasing over the last few years, mainly for implementation in commercial and aftermarket vehicles.

To target this new market, Smart Eye started Applied AI Systems (AIS) in 2019. By offering a plug-and-play DMS product with integrated hardware and software, we have created a high-performing and cost-effective alternative for fleet and aftermarket.

### World-class DMS —installed in just a few minutes

The system, called AIS, consists of an ECU, a camera and our DMS software to be installed in virtually any vehicle, either as a standalone solution or integrated in the car. It is an off-the-shelf product that has been developed for smooth and easy installation.

Thanks to its self-calibration feature, AIS can be up and running quicker than any other DMS solution. By analyzing the driver's eye, face, and head movements for just a few minutes, the system learns their individual signals of focus or distraction. This allows AIS to be installed and used in any vehicle, in front of any driver, without the need for complex calibration processes.

### Making 23 years of experience affordable

AIS is built around the same tracking software as Smart Eye's industry-leading DMS solution, used by several premium car manufacturers all over the world. After years of thorough testing by some of the automotive industry's most demanding customers, our core tracking software can be relied on for precision and performance in any vehicle. By packaging this technology in our own hardware, we are able to offer it to a new market at an affordable price — putting AIS years ahead of other fleet and aftermarket DMS solutions on the market.



## Product development strategy

Through Smart Eye's close collaboration with partners and clients within the automotive industry, we get early insight into what will shape the market onwards. This enables us to stay one step ahead and adjust our product development strategy based on what customers will request in the future.

### Development based on customer needs

AIS also places great importance on customer feedback for future product updates. Early on, in the development phase of AIS, we conducted field tests with potential customers in order to ensure the system complies with their needs and requests. AIS' initial customers' feedback will be an important part of our product development strategy.

### Delivering our tried-and-true software to a new market

AIS is based on Smart Eye's core algorithms for eye, head, and face tracking, that have been developed and continuously enhanced over the course of two decades. This means any updates made to the core algorithms will also benefit AIS and be made available to our fleet and aftermarket customers.

The underlying AIS software uses technology that is in all of our Driver Monitoring Systems — including those sold to several of the world's largest OEMs. To qualify for implementation in automotive safety systems, we have developed our software according to rigorous

automotive safety standards. In the target markets for AIS, there are only a few other suppliers who can make the same claim.

### AIS in your smartphone

In addition to the DMS software, Smart Eye is developing a smartphone app for AIS. The app can be used for support during installation, by offering users an image of what the camera captures, and by enabling customization of personal settings.

## Customers

Applied AI Systems targets three distinct market segments:

- Fleet
- Aftermarket retrofit
- Smaller volume OEMs

In all these segments, there is an increasing demand for cost-efficient, off-the-shelf Driver Monitoring Systems. For many of these customers, the DMS offered by established Tier 1 suppliers are not a profitable alternative. With AIS, smaller volume OEMs and fleet managers avoid the expenses associated with large development projects and are instead able to access all the functions of advanced DMS for a fraction of the cost.

### DMS: an essential safety technology for all vehicles

Driver Monitoring Systems may have started as a feature in newly produced, premium cars, but awareness



of drivers' mental and physical states is just as important in any type of vehicle. In commercial vehicles, especially those transporting hazardous goods, driver distraction and drowsiness can have grave consequences for humans and the environment alike.

Installing DMS in commercial vehicles is an easy and effective way to improve road safety. But for fleet owners, there are many additional benefits to DMS. By gaining insight into what goes on in their vehicles, fleet owners can keep track of how long drivers have been on the road and identify when they need to take a break from driving. The data can also be used to improve driver behavior long-term, prove adherence to regulatory requirements or to help explain the causes of an accident.

## Market drivers

Among smaller volume OEMs, the demand for complete Driver Monitoring Systems is significant. With a rapid increase in implementation, DMS has become a key feature for any OEM aiming to stay competitive and on top of development.

### Legislation sets the standard for commercial vehicles

In every automotive customer segment, the main driver for market growth is legislation. Several countries, such as China, the USA, and across the EU, have already mandated the use of DMS in commercial vehicles through legislation, and more legislation is underway — this will make the wider adoption of DMS inevitable.

### Accident avoidance: a universal argument for DMS

Avoiding accidents is an important incentive for implementing DMS for many potential customers, but especially for fleet owners and insurance companies. By preventing accidents, DMS not only helps save lives and avoid injuries, but also reduces the economic loss caused by accidents. For transporters of hazardous goods, an accident could even lead to contamination or other severe damage to the environment.

### DMS: an investment in Corporate Social Responsibility (CSR)

On top of making a profit, many companies see it as their mission to also make a social and environmentally responsible impact through their business. By installing automotive safety systems in their vehicles, fleet owners take action to ensure the safety of their fleet, employees, and the planet. This not only helps build positive brands but gives companies a competitive edge in the market.

### The trickle-down effect: from premium OEMs to other market segments

Automotive market trends are typically first adopted by premium OEMs but will often reach other market segments within a couple of years. This also applies to the target markets of Applied AI Systems.

One example is the evolution of DMS into Interior Sensing, with safety and convenience functions being expanded to the entire cabin and everyone and everything in it. In line with this development, aftermarket customers are now requesting systems with broader



functionality. Through Smart Eye's close collaboration with partners and customers within the automotive industry, AIS is well poised to deliver these features to fleets and the aftermarket well ahead of the competition.

## Market dynamics

In 2020, the global spread of COVID-19 and its ensuing shutdowns halted the early production of AIS. By 2021, the continued impact of the pandemic had bled into the supply chain, resulting in a global semiconductor shortage that has affected the entire automotive industry. This has made it difficult for us to secure the components necessary for large-scale production of AIS. To partly compensate for the shortage, we have acquired some components on the electric spot market. While the semiconductor shortage continues to influence production, we will start delivering AIS systems to customers in the first quarter 2022.

## Organization

The AIS business division consists of 20 developers and sales managers, the majority of which are based at our headquarters in Gothenburg, Sweden. As of April 1, 2022 AIS is led by Magnus Brunzell, who joined Smart Eye in January 2019.

## Business model and revenue recognition

Applied AI Systems brings their products to market through direct sales, receiving requests and orders from customers all over the world.

Revenue is sourced in two different ways:

- Unit license sales
- Recurring subscriptions

The main source of revenue for the business area is unit licenses, sold at a fixed, one-time price. For unit license sales, the timing for revenue recognition will likely be just a few months.

Customers can also purchase cloud services and software updates for their systems, which will contribute additional revenue for the business area. Cloud services for AIS will be built during 2022.

Another potential stream of income, on top of licenses and recurring subscriptions, is development projects for integration in specific vehicles. This would result in non-recurring engineering (NRE) revenue for Applied AI Systems. For NRE, revenue recognition timing is also relatively fast — likely within six months from project initiation.





# Sophisticated eye tracking for insight into human behavior

Smart Eye's Research Instruments business area develops the most sophisticated eye tracking systems used by the world's leading research organizations looking to gain insight into human behavior, intentions, and interactions.

Using a camera and illumination modules, combined with world-class computation and analysis software, Research Instruments is redefining the possibilities of human-machine interaction. All over the world, research, education and training groups within different organizations, companies, institutes and universities use Smart Eye's systems to reach new breakthroughs within human behavioral research.

## Offering

Smart Eye's Research Instruments develops the world's most advanced eye tracking systems for analyzing human behavior and the impact of human factors. For more than 20 years, we have been working in close collaboration with the automotive industry — an industry that demands technology at the highest standards.

### Unparalleled accuracy under challenging conditions

The eye tracking systems offered by Research Instruments are used in complex research environments, in a wide variety of lighting conditions — from strong sunlight to almost complete darkness. This requires our systems to collect high-quality data under variable lighting, while staying non-obtrusive for research participants. Thanks to this high level of flexibility and accuracy, our systems allow for research conditions to stay very true to real-life situations.

### An eye tracker for every situation

Research Instruments offers five different eye tracking products:

- Aurora
- Smart Eye XO
- Smart Eye AI-X
- Smart Eye Pro
- Smart Eye Pro dx

These products consist of in-house developed hardware, standard industry components, and our proprietary software. We also offer installation, training, and technical integration services, as well as evaluation consultation for different organizations.

As the world's most advanced remote eye tracking systems, our Research Instruments products feature the best combined head box, field of view and gaze accuracy on the market. This versatility, combined with incredible performance in all conditions, is why our products are the preferred partner for complex environments — including car and flight simulators, vehicle studies, multi-screen or control room environments, and long-range tracking.

## Customers

Research Instruments' main customer categories are Automotive, Aviation and Aerospace Research, and Assistive Technologies. In addition, we provide Training & Education focused on the aviation and railroad industries. Our solutions are used around the world by more than 800 prestigious partners and customers, including NASA, BMW, Audi, Boeing, Airbus, Volvo Cars, GM, SmartBox, Toyo, iMotions, Universal Studios Media Lab, Johns Hopkins University, and Harvard University.

### Automotive

In automotive, vehicle development is a complex process, and safety is one of the critical areas that must be addressed. Eye tracking is a central part of delivering a pleasant driving experience and improving road safety. Our eye tracking solutions provide significant value to research institutes, car OEMs, and Tier 1 suppliers by providing objective and data-oriented feedback. They also help researchers extract human insight in different phases, such as design, purchase, test and drive processes, by offering information on driver gaze and visual attention.

### Aviation and Aerospace

For Aviation and Aerospace, our technology is used in training simulators. The data provided by eye tracking can be used to evaluate cockpit design, optimize the in-flight experience for pilots, assess their performance, and assist with decision-making processes for flight instructors. In the next few years, aviation is expected to follow the automotive industry — installing eye tracking devices in cockpits to track pilots' attention and drowsiness levels. In Aerospace, NASA has Smart Eye's eye trackers installed in their Flight Deck Simulators as well as their Research Flight deck, where they are used to monitor pilot state and behavior.

### UX, Psychology and Neuroscience

Research Instruments also delivers eye tracking systems to customers within UX research, Psychology and Neuroscience research. By providing quick human insights, our products can help understand how users engage with products and determine what influences consumer behavior. In neuroscience and psychology research, eye tracking is a key component in the multimodal approach to gaining a deeper understanding of human interactions and experiences.





## Products

### Aurora

Aurora is Research Instruments' most user-friendly eye tracker, launched in 2015 as a bar tracker and installed by the customer. Despite its simplicity, Aurora offers high performance and the capability of delivering accurate data, often being the entry point when a customer's need for eye tracking first arises. In 2020, Aurora was launched with a 120 Hz sample rate for even better accuracy.

### Smart Eye XO

Smart Eye XO is a slightly more advanced eye tracker launched in 2018. By combining Aurora's hardware with Smart Eye Pro's software, Smart Eye XO can be used with multiple displays simultaneously.

### Smart Eye AI-X

Launched in 2020, this eye tracker was produced especially for display-based research in marketing, UX and media. Smart Eye AI-X is a sophisticated yet flexible system, well suited for research studies that enroll a lot of participants.

### Product Integration

In addition to our eye tracking systems, Research Instruments offers product integration into all sorts of devices from various industries — often resulting in new products equipped with our head and eye tracking technology. We offer a range of engineering consultancy and support to facilitate these integrations.

### Smart Eye Pro and Smart Eye Pro dx

Smart Eye Pro and Smart Eye Pro dx are the most sophisticated systems offered by Research Instruments. With capacity for up to eight cameras, both systems are customized and complete solutions that generate the majority of Research Instruments' sales. Smart Eye Pro dx was launched as a more advanced version of Smart Eye Pro in 2018, and is an excellent upgrade for many of the customers that had previously used Smart Eye Pro.

With its more compact footprint, Smart Eye Pro dx is also ideal for customers that need to save space in complex environments. Most recently, Smart Eye Pro 9.1 added the capability to generate precise measurement data even with much of the face obscured. This is crucial to Research Instruments' customers in the COVID-19 pandemic, which has made face masks a necessity in many studies. Research Instruments also produced a version of Smart Eye Pro with enhanced capability to measure children's eye movements.

## Collaborative partners

Our collaborations with component vendors, tech partners and distributors are critical for the development of our sophisticated eye tracking systems.

Research Instruments' customers are located around the world. Our partner agencies and distributors enable us to reach major markets, especially in Asia. In China, we work with several distribution partners, and since 2018, we have an agent in Guangzhou who manages our relationships with them. This has helped us advance our position in the Chinese market. That same year, we also contracted a Japanese partner, TOYO, who also represents us in China. In addition, we also have partnerships in South Korea.

### SmartBox partnership enables entry into new market segment: Assistive Technology

In 2021, we announced our collaboration with leading assistive technology provider SmartBox. By deploying our eye tracking technology in the Augmentative and Alternative Communication (AAC) device Lumin-I, Smart Eye and SmartBox are giving people with disabilities a tool to communicate without barriers and experience a more independent life.

### The iMotions acquisition: the potential of multimodal behavioral research

iMotions' multimodal research platform uses Research Instruments' eye tracking, in combination with other sensors of physiological signals, to gain deeper insight into human behavior. Research Instruments and iMotions have been working together for many years, and this collaboration logically continues now that iMotions is a Smart Eye subsidiary.

## Market drivers

Researchers are always looking to invest in new technologies to uncover human behavioral insights — making the market opportunities for Research Instruments practically infinite.

### Integrated eye tracking in customer solutions

During 2021, we have seen an increased commercial interest in integrating our eye trackers into other solutions. This trend is expected to continue in 2022 and beyond, creating many interesting opportunities for Smart Eye going forward.

### Increased emphasis on remote data collection

Many of Research Instruments' customers have long relied on in-person data collection for their research. But during the global COVID-19 pandemic, the need for remote data collection has increased — shifting the focus from in-lab or classroom studies to collecting data from people's homes. These circumstances have made highly accurate, web camera-based eye tracking more important than ever before. In the future, even beyond the pandemic, remote data collection is expected to remain prevalent.

### Acquisitions unlock new opportunities for multimodal research

The 2021 Affectiva and iMotions acquisitions have fueled Smart Eye's multimodal approach to research, unlocking new use cases and markets. In 2022 and beyond, we will continue to meet customer's needs by developing premium multimodal solutions. To reinforce our position as a leader in Human Insight AI, we are also revitalizing our focus on business development, sales and digital marketing — including events and new lead generation strategies.

## Market Dynamics

During 2021, the COVID-19 pandemic caused a component shortage across many different markets and regions. This has impacted research customers in Europe, the US, and especially the Asia-Pacific countries — limiting further geographic expansion.

These challenges drove us to learn and adapt to working virtually, offering online support and training to customers. In 2021, Smart Eye Pro was optimized for tracking faces with face masks. This enabled many customers to continue using our systems, especially in lab environments where face masks were mandatory.

## Organization

The business area has been led by Solmaz Shahmehri since 2016. Solmaz has been with Smart Eye since 2009, and is responsible for delivering a sustainable, profitable business model for Research Instruments. While the Research Instruments team is mainly based in Gothenburg, Sweden and Detroit, USA, we work globally, covering Europe, APAC, and North America.

In the past years, we have strengthened our presence in APAC by increasing our work with resellers and integrators in China, South Korea and Japan. Additionally, with the Affectiva and iMotions acquisitions, we are expanding our global footprint and strengthening our multimodal offerings for customers in the research market.

## Business model and revenue recognition

Research Instruments generates revenue from unit license sales. In addition, our smart subscription agreements generate a minor revenue stream. For these, customers pay an annual license fee to access new software updates.

For companies and technology providers who aim to integrate our technology in their solutions, we offer a technology evaluation packet that contains product and engineering consultancy services. This not only generates strong recurring revenue, but also long-term and successful partnerships.

In 2021, Research Instruments experienced a significant increase in revenue from product integrations. This, in combination with a recovery post-pandemic peak in EU and Asia-Pacific, resulted in a record year in terms of revenue. Compared to 2020, Research Instruments' revenue grew 30% in 2021.



Smart Eye Pro

# Decoding human emotion in marketing and media

With the acquisition of Emotion AI pioneer Affectiva in 2021, Smart Eye gained a new business area: Affectiva Media Analytics. For over a decade Affectiva Media Analytics solutions have helped the world's leading brands optimize content and media spent by measuring nuanced consumer emotional and cognitive responses to videos, ads, movies, TV shows and more — unobtrusively and at scale.

Affectiva Media Analytics' Emotion AI offer is used by 70% of the world's largest advertisers and 28% of the Fortune Global 500 companies. Our solution is particularly relevant to businesses that sell consumer products, services and experiences, and to the entertainment sector that creates and markets entertainment content.

All such businesses research their advertising, experiences and content both before and after creation, to optimize its utility for consumers. Understanding how consumers feel about that content is critical to that effort — which is where Affectiva Media Analytics come in.

## Offering

Marketers recognize the importance of understanding consumer and viewer emotions, as emotions influence our behavior and how we make decisions. It's hard to quantify emotional reactions. Marketers often don't measure this and when they do, they use very weak methods.

Affectiva Media Analytics' Emotion AI provides an objective, nuanced and scientifically valid approach to understanding how people feel, and what triggers those emotional responses — all based on analyzing subtle behavioral signals.

This allows for much finer-grained optimization of content, ads and experiences than traditional methods such as surveys or individual interviews can allow. Affectiva Media Analytics' Emotion AI system is class-leading in many ways:

- With 6 billion frames from more than 12 million faces across 90 countries, Smart Eye has one of the largest emotion data sets on the planet. This allows us to provide stronger context for interpretation and draw on more diverse data than other providers, ensuring accuracy and minimizing bias in our algorithms.
- As a result, our core algorithms are unparalleled in accuracy and nuance — with a wider set of facial expressions analyzed compared to other systems, including unique measures such as sentimentality and confusion.
- Affectiva Media Analytics perform very robust data quality checks, which lead to high real-world success rates and more insightful data.
- Our technology can be integrated into research providers' systems seamlessly and efficiently. Once integrated, clients can essentially self-serve the technology, which enhances speed and ease of use.



## Products

Affectiva Media Analytics' Emotion AI offering measures people's emotional responses as shown on their faces, captured by market-leading deep learning algorithms. We primarily offer cloud-based systems, but also provide an SDK that can run in the cloud or on client-managed servers. Our algorithms are robust enough to work wherever customers want to undertake research — from the comfort of one's home on a webcam or a mobile device, to a dark movie theater. Media Analytics' offerings are sold in three elements:

- The core offer is a content-research platform that allows businesses and their research agencies to plug our technology seamlessly into their research projects. Viewers are recorded with their consent while they watch content, and our system analyzes their responses from those videos. The data is anonymously aggregated and made available to researchers via an online dashboard. The process is designed to be self-serve and automated, making the offer low-cost and scalable across the world.
- An Emotion SDK, which allows businesses to plug our algorithms directly into their own products and services.
- An API-led video analysis service, which allows for fast, scaled processing of video for emotional signals — often used by the qualitative research industry, or media businesses seeking to index their content for emotion.

## Product development strategy

In 2022, Affectiva Media Analytics' product development teams will continue to evolve our offering, capitalizing on the market growth opportunities available. Our core science team frequently updates our algorithms based on the latest AI and emotion science (with our latest release in October 2021), and our data strategy is to continually enhance our offer by drawing on the uniquely diverse dataset we have.

Meanwhile, our product engineering team works on the platform to enhance client and user experience based on feedback from the market and the needs of emerging opportunities.

## Customers and Collaborative Partners

The Affectiva Media Analytics business area sells both directly to end users, such as consumer goods manufacturers, and their research providers. Our relationships with research providers are deep and long-term, allowing us to ensure we deliver maximum value while avoiding channel conflict. Our technology is more widely used than any other in market today — our customers include 70% of the world's largest advertisers, and 28% of the Fortune Global 500 companies.



## Market drivers

### Navigating the global content boom

All around the world, the sheer amount of advertising and entertainment content has exploded across an expanding range of formats and channels. This growth in digital advertising and media, and continued proliferation of marketing channels, will continue to produce upward pressure on the amount of content businesses produce – and the market for audience response and optimization will continue to grow.

Meanwhile, traditional research methods have become too slow and limited, making businesses look for methods that give finer insight and which are more aligned with modern understanding of the role of emotion in decision-making. This, in combination with a growing demand for scalable, lower-cost research methods, offers significant growth opportunities for Affectiva Media Analytics in the future.

### Zoom-to-zoom: switching to online research methods

The COVID-19 pandemic has challenged the whole marketing and research industry, forcing marketing budget cuts and limiting face-to-face research. But since Media Analytics' methods are optimized for virtual, or online, research, these new circumstances

have won us business that may have been conducted face-to-face in the past.

Smart Eye has benefited from this switch to online research approaches, especially in markets that have previously hesitated to apply virtual research methods, such as India. This is one driver for Media Analytics' strong revenue recovery in 2021.

Even though the market research industry can sometimes be resistant to change, we have seen continued and renewed interest in our technology, despite the pandemic, as Media Analytics provides a better solution for emotional measurement than traditional tools.

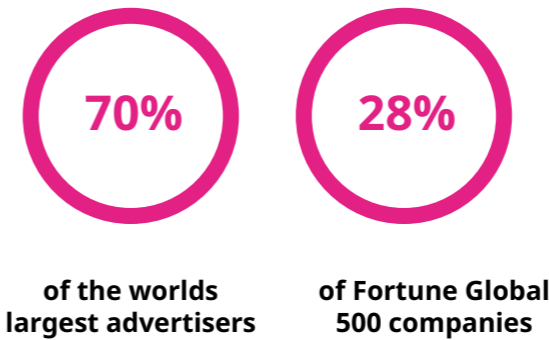
The pandemic will continue to have a significant impact if it results in further global lockdowns. However, we see this impact as more muted than in the past as the industry has adapted – and the Affectiva Emotion AI approach is part of that adaptation.

## Market dynamics

### Implementing online privacy policies

The more people live their lives online, the more emphasis is put on online privacy. We will likely see a continued concern surrounding digital privacy, and expect further legislation for protecting personal data around the world.

## Affectiva Media Analytics' Emotion AI is used by:



Media Analytics' products and policies already have strong privacy protection based on consent enforcement, which we will continue to emphasize in our marketing and contracts. We will also continue to adapt our processes to ensure the protection of personal information, in line with local legislation.

### Research on DIY platforms

Among our media clients, the use of DIY research platforms is a growing trend. However, thanks to Media Analytics' seamless integration, we are well positioned to take advantage of this development and are already integrated into the DIY research tools offered by key research clients.

## Organization

The Global Marketing Director of the Affectiva Media Analytics business area is Graham Page. Graham is a 25+ year media and research industry veteran, who was one of the leading figures in the adoption of biometric methods by the marketing industry. The Affectiva Media Analytics business area is structured as a standalone unit, with its own sales, client support, analytics, software engineering and science teams. There are definite synergies between Research Instruments and Affectiva Media Analytics. With the acquisition of iMotions — already a long-time user of Affectiva Emotion AI — active explorations are taking place around how these three business areas will work together to deliver a holistic, multimodal offering for the research space.

The Affectiva Media Analytics business area is globally distributed, with team members in the US, Canada, UK and Egypt. Our primarily cloud-based technology enables scale, allowing us to work in over 90 countries around the world, without a large infrastructure of local offices.

## Business model and revenue recognition

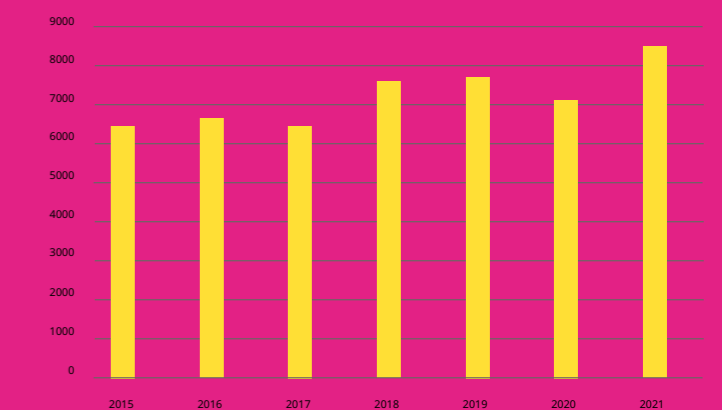
Affectiva Media Analytics generates revenues via three routes:

- Provision of cloud-based analytic services – usually analysis of emotional responses by test audiences, sold to marketing agencies, advertisers and entertainment businesses. Our services are typically integrated into research projects conducted by market research agencies.
- Licensing of a software development kit that enables businesses to add emotion-sensing capabilities to their own software products. Revenues are typically generated on a per-seat basis, or from a royalty on software sales that incorporate our SDK.
- Software as a Service provision of access to our algorithms via APIS, typically for bulk processing of video for emotional responses – which is typically used by providers of video analysis software or academic researchers.

In addition, the Media Analytics division generates some services revenue from ad hoc research projects, usually undertaken as a proof of concept for a new use case.

2021 represented a strong recovery from the impact of the pandemic in 2020, and reflected a successful execution of the strategy. Confirmed sales of the core Media Analytics offers grew by 19%. Within that, volumes of ad testing work were at an all-time high, growing by 21% over 2020, and ending the year at 11% higher than the pre-pandemic year of 2019.

## Volume of videos tested were at an all time high in 2021



# Advancing the possibilities in human behavior research

Current scientific estimates are that as much as 95% of human behavior is driven by non-conscious signals in the form of emotions. Think about that; almost every decision we make is based on an emotion— not rational thought and measured consideration. Now add the fact that everyone carries nonconscious bias, and it's clear that research based on traditional survey methods alone paints an incomplete picture.

For researchers seeking to gain true insight into human behavior — whether a marketer seeking to reach consumers, an academic developing definitive findings, or an organization evaluating a trainee — it's critical to understand what someone truly is experiencing and feeling.

For more than a decade, iMotions has continued to develop and successfully deliver a platform that allows researchers to access emotional, cognitive and behavioral data in a synthesized way in order to tap into real-time human experiences. By uncovering behavioral insights that cannot be gained through conscious responses alone, this has helped academics progress their research and businesses become better attuned to customers.

## Offering

iMotions has developed a suite of analytics solutions for any kind of human behavior research, designed to meet the wants, needs and desires of modern researchers. iMotions measures human nonconscious reactions to all kinds of stimuli, integrating analysis, tracking and aggregation of data from more than 50 hardware sensors that each detect different biometric responses. These include visual attention (Eye Tracking), emotions (Facial Expression Analysis), excitement and intensity (Galvanic Skin Response), motivation and memory (EEG), muscle response (EMG), and heart rate (ECG).

This multimodal solution suite infuses confidence in our customers, knowing that they're going to have the right technology to provide the right insights for their questions, challenges and hypotheses. After all, no single sensor has a monopoly on the truth, but every single one of them reveals something unique and important about human behavior.

This product suite, which supports more modalities than any other, includes:

### iMotions Lab

Our core platform is a complete, full-scale, lab-based platform that allows for cutting-edge, multimodal human behavior research. Researchers can design studies, present any type of stimuli, carry out surveys, record from a webcam, create graphic visualizations and collect, mark, annotate and export data. Hardware agnostic, the platform integrates with more than 50 sensors from more than 21 partners.

### iMotions Online

Using a browser's interface and a participant's own webcam to collect data from Facial Expression Analysis and Eye Tracking, while also integrating online surveying. This puts a world of insight at a researcher's fingertips, with the ability to test stimuli in far-flung outposts among those who typically are hard to reach, or in significant numbers that may otherwise be cost-prohibitive. It's quick, cost-effective and powerful and plugs into the iMotions platform so that data can be processed and analyzed, maintaining integrity without compromising full, flexible functionality.

### iMotions Mobile

Catered to those seeking to gather data "in the wild," iMotions Mobile is a remote, feature-rich modular platform, centered on using flexible, robust wearable sensors to track participants physiological and behavioral data, which can be integrated with self-report surveys that can be delivered through smart devices. Data can be captured in natural environments, during daily lives and over long periods of time.

### Each of these solutions delivers:

- Integration and synchronization for more affordable, better and reliable research
- Seamless integration of sensors and stimuli — which allows researchers to focus more time on research
- Sophisticated and reliable analysis and visualization of multimodal biometric data
- One-stop shop software platform for effective research and cost and time efficiencies
- Ecosystem of supported hardware constantly being expanded based on iMotions' quality selection criteria



## Product development strategy

### Continuing at the forefront of human behavioral research

iMotions successfully developed the multimodal research market from the eye tracking research market. Today, we are a global SaaS company and leader in the early-stage niche market for multimodal software for human behavior research, as well as a knowledge intensive organization with in-depth neuroscience expertise as part of Smart Eye.

All iMotions solutions are based on more than 15 years developing and refining a platform that integrates tools and technologies that can provide a moment-by-moment understanding of human behavior and decision making. iMotions has expanded to include more than 50 sensors, from more than 20 partners, as well as explicit tools like surveys and questionnaires, to deliver a robust picture of the emotions and feelings that drive human behavior.

### Anywhere, anytime

iMotions is accelerating product innovation, particularly in the areas of remote online and mobile data collection and analysis, in order to help customers gain even greater insight by studying the complexity of human behavior in real-world and challenging environments. There are three core components to this:

- Enabling behavioral data collection outside of the lab environment by using widely available sensor technologies, such as web cameras and other sensors provided by

- mobile and laptop devices.
- Enabling cross-modality analysis through an online, cloud-based platform that provides universal access to collected data.
- Strengthening the core, offline, lab-based product line in terms of improved ease-of-use and performance, along with seamless connectivity to online and mobile platforms.

iMotions solutions are developed in close collaboration with our customers, ensuring that solutions are developed to meet their current and anticipated needs. This, in part, led to the 2021 launch of a Customer Success Program. Intended to be a mutually beneficial initiative, it addresses customers' needs (from setup to optimization) while also creating a community for them to connect with each other around research, collaboration, and best practices.

Managed by our Customer Success Management team, the program provides us with important feedback, while also helping to increase customer retention and drive recurring revenue through nurture and support. New customers are automatically enrolled in the program. And, in just a few months since its unveiling, nearly three-quarters of our largest customers are participating in the program.

## Customers

iMotions target customers are those that benefit from access to emotional, cognitive and behavioral data in a synthesized way to tap into real-time human experiences. More than 1,300 organizations around the world use iMotions, including leading academic institutions, global brands, marketing and advertising agencies,

highly respected healthcare organizations, government agencies, and military. Our platform helps them to create and develop, market and sell, refine and publish. Within those commercial organizations, end users range throughout the product lifecycle — from R&D through to sales and marketing.

## Market drivers

Human behavior change has accelerated rapidly over the past two years, with the COVID-19 pandemic upending norms, beliefs, assumptions and long-held acceptance of the way things have been done. It has forced adaptation, rewiring brains, and forming new habits around everything from food and entertainment to shopping and travel.

While some of this may be temporary, lasting only so long as the impact of the pandemic, others have become deep-rooted or at least have become the building blocks for a new normal. This once-in-a-generation disordering should fuel an interest in gaining an understanding of this disruption that cannot be accessed through more traditional means of research. This overarching, worldwide theme will drive researchers to seek the latest insight, one of several ways the market will advance forward.

### Limited lab access calls for online solutions

COVID-19's impact has forced researchers to look for ways to carry out their work when lab access is impeded. This has proved to be an accelerant for the adoption of online and mobile solutions. It builds on what already had been an increased demand for quick, remote, and scalable solutions in human behavior research. This demand will be met with the extension of the iMotions product portfolio via remote, sensor wearables and cloud-based research tools with the market introduction of iMotions Online and iMotions Mobile products.

### Technology paves the way for better insights

Technological advances are making research easier, faster and more cost-effective. In particular, as sensors get smaller and more powerful, it allows for continuous monitoring and collection of data - which allows for deeper study in real world environments, thus yielding even more powerful insights.

### Growing interest leads to increased understanding

As the market continues to mature, there is more willingness to invest in new technology and research, including the larger APAC region. Increasing interest in how multimodal biosensor technology can uncover underlying feelings, thoughts and behaviors that underpin economic decision-making, human interactions, learning ability, safety, and well-being.

- The number of human behavior research labs are growing in academia as well as in commercial organizations, as more people recognize the need to understand, adapt to and capitalize on behavioral, market and industry trends.
- The share of labs using sensors is growing, enabled by technological advances creating sensors that are smaller, less expensive, more flexible and more powerful.
- The share of sensor labs using multimodal is growing, enabled by deeper insights.

### The new generation favors biometric technologies

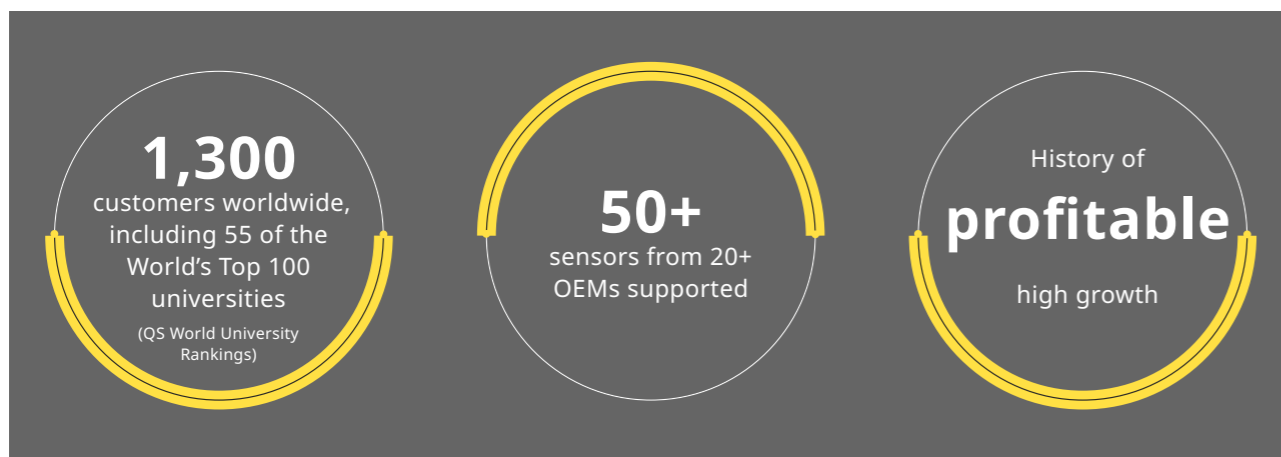
There's a generational shift among researchers among those who have grown up with deeper data collection and who recognize the inherent weakness and blindness in tools that can only measure conscious responses. This further accelerates the addition of biometric technologies to traditional methods and further into remote and cloud-based research tools.

## Market dynamics

### Continued effects of Covid-19

The COVID-19 pandemic significantly impacted iMotions customers in 2021, most notably in the interruptions it created in accessing labs and study participants. While the pandemic seems to be developing in the right direction, outbreaks that drive significant interruptions will impact our customers' ability to conduct research. This does, however, present an opportunity to accelerate the development of iMotions Online and iMotions Mobile - which allow research to continue their work uninterrupted.

Simultaneously, the pandemic's impact on the global supply chain has caused a semiconductor shortage that has increased delivery times for hardware. While this does not affect iMotions' core product, it increases the time it takes to deliver new hardware sensors and onboard new clients



## Organization

Since its founding in 2005, iMotions has been led by Founder and CEO Peter Hartzbech. Additional members of the organization's leadership team include Thorsten Larsen-Seul, COO and CFO; Nadia Haagen Pedersen, EVP, Marketing Communication & Strategy; Holger Lunden, EVP Global Client Solutions; and Jacob Ulmert, VP Engineering.

### The iMotions acquisition

Smart Eye completed our acquisition of iMotions in November 2021, coupling our advanced eye tracking and Emotion AI technologies with iMotions' innovative, multiple-sensor data collection and analytics software to create the first powerhouse in human behavioral research and analysis. Together, we provide an end-to-end, multimodal approach to analyzing complex human behaviors and delivering holistic human insights.

iMotions remains a wholly-owned subsidiary of Smart Eye Group and continues to be independently run under terms of the agreement. iMotions has a global headquarters in Copenhagen (Denmark) with offices in Boston (USA), Berlin (Germany) and Singapore.

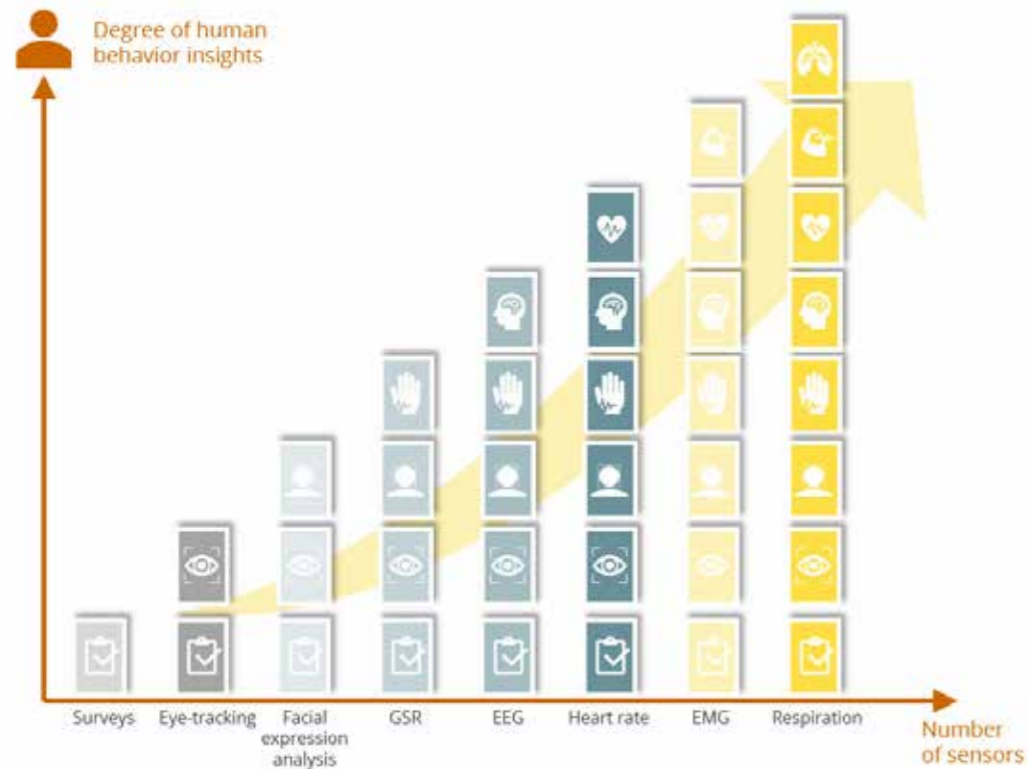
The acquisition significantly expanded Smart Eye's global footprint, as iMotions has more than 1,300 worldwide customers across academia and various industries, including 55 of the World's Top 100 universities (QS World University Rankings).

## Business model and revenue recognition

iMotions is a SaaS company, with an estimated 50% market share in an early-stage software market for multimodal behavioral research. We are a knowledge intensive organization, sourcing our behavioral research expertise through a global organization including academic PhDs in Neuroscience.

iMotions delivers revenue through a combination of an annual license model for Academia (recurring renewals) and a subscription based (SaaS) model for commercial customers. The company is undergoing a transition from a purely license-based business model into primarily a subscription-based SaaS model.

iMotions primarily brings our solution to market directly, but a reseller strategy is planned for 2022. Currently, iMotions operates with resellers in Poland and Japan. The iMotions software is also sold through referrals from the partner ecosystem.



## SUSTAINABILITY

# Our view on sustainability

The history of humanity is the history of innovation. Technological breakthroughs generally lead to an increase in human productivity, creating conditions that raise the standard of living for every generation. We believe that this formula for progress holds true, and that future technology will enable all of us to lead safer, healthier, happier and more connected lives.

Our contribution to a more sustainable tomorrow is Human Insight AI, technology that understands, supports and predicts human behavior in complex environments. By bridging the gap between humans and machines, enabling a deeper understanding of how people interact with each other and the world around them, our solutions drive growth in a number of industries, while also having a direct impact on individual lives.

In automotive, our technology makes car journeys safer today, and paves the way for autonomous driving and more efficient mobility systems tomorrow. Our research instruments and pioneering use of Emotion AI help prevent accidents and pilot errors in aviation, new discoveries in neuroscience, psychology and medicine, and enables more human-centric content and interfaces in the digital world, to name a few.





## Shares and share capital

At the beginning of 2021, the number of shares outstanding was 16,630,882 (15,118,984), and share capital was SEK 1,663,088.2. Smart Eye conducted two directed share issues in 2021 as well as two issues of consideration shares. Accordingly, at year-end 2021, the total number of Smart Eye shares outstanding was 22,148,650 and share capital was SEK 2,214,865.0. All shares have equal voting rights and give entitlement to an equal share in the company's assets.

## Shareholders

Through participation in the directed share issues during the year Handelsbanken Funds, Swedbank Robur and The First Swedish Pension Insurance Fund remains as major shareholders. Co-founders Mats and Martin Krantz remain among the company's largest shareholders. In total, the number of shareholders increased by 29% in the year to 13,416 (10,378).

## Outstanding incentive programs

At its AGM on 14 April 2021, the company resolved to establish an incentive program for senior executives and staff. On full exercise of the company's incentive program, 150,000 shares would be issued. Subject to the fulfilment of certain conditions, the subscription price of shares subscribed with warrants is SEK 218,75 per share. Subscription is possible in the period 1 June 2024 to 30 June 2024 inclusive. In addition, the company resolved at an EGM on 8 October 2021 to establish an incentive program for senior executives and staff of the acquired company Affectiva. On full exercise of the company's incentive program, 137,500 shares would be issued. Subject to the fulfilment of certain conditions, the subscription price of shares subscribed with warrants is SEK 218,75 per share. Subscription is possible in the period 15 November 2024 to 15 December 2024 inclusive.

The company also has two current incentive programs adopted by the AGMs on 15 May 2019 and 8 May 2020.

## Dividend policy

Smart Eye is in a development phase, with any surpluses planned for reinvestment in the company's progress. The Board of Directors does not intend to propose dividends. Any dividends will be resolved by the AGM after proposal from the Board.

### THE SHARE

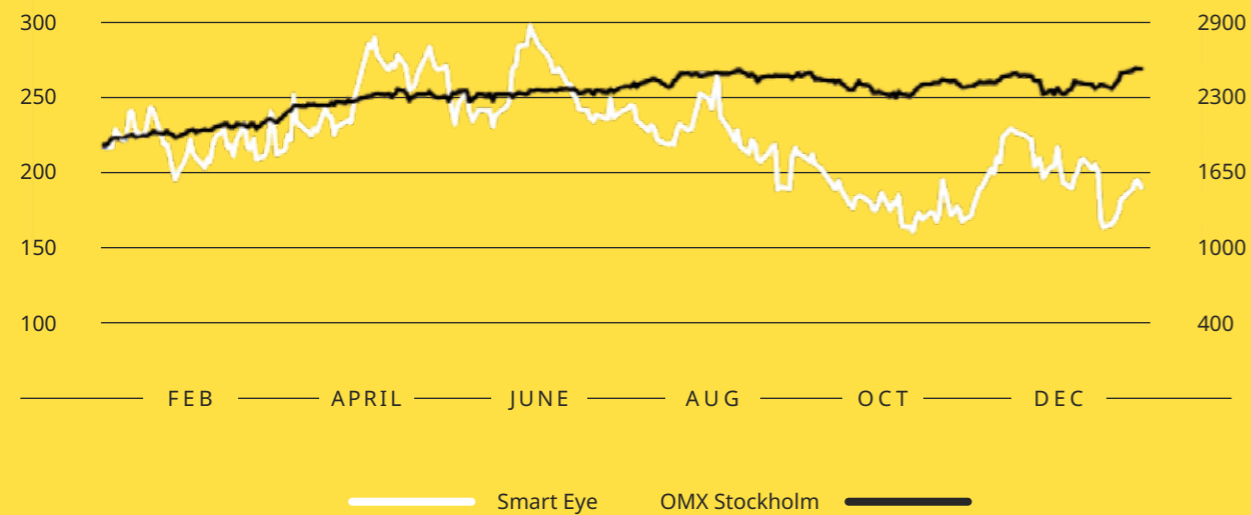
# Increased market capitalization and growing number of shareholders

Smart Eye's share has been listed on Nasdaq First North since 7 December 2016, when its initial offering price was SEK 46. The share is in the Industrial Goods & Services sector, and trades with the ticker SEYE.

Smart Eye's share price decreased by 10% in 2021, and the closing price for the year was SEK 196,6 as of 31 December, which means that the company's market capitalization at year-end was SEK 4 354 million (3,609) an increase by 21%. Smart Eye shares with a value of SEK 5,432 million (2,273) were traded in 2021, equating to average daily turnover of SEK 21.5 million (8.9). Shares traded in 2021 correspond to 114% (102) of the average number of shares outstanding in the year. Smart Eye's Certified Adviser is Erik Penser Bank, on tel: +46 (0)8 463 80 00, or email info@penser.se.



## Share price performance in 2021



Closing price  
31 December 2021:

# 196,6

SEK

## Share price performance and trading volume

SEK	2021	2020	2019	2018
Closing price December	196,60 SEK	217,00 SEK	118,00 SEK	68,00 SEK
Market capitalization December	SEK 4 354,4 m	SEK 3 608,9 m	SEK 1 784,0 m	SEK 893,9 m
Share price performance in the year	-9,4%	83,9%	73,5%	36,8%
Share price high	SEK 285 (1 jun)	SEK 220 (28 dec)	SEK 125 (4 apr)	SEK 86 (3 oct)
Share price low	SEK 173 (12 oct)	SEK 44 (18 mar)	SEK 66 (2 jan)	SEK 30 (3 may)

## Ten largest shareholders, December 31 2021

Name	Shares of votes and capital	Number of shares	Market cap SEK m
Handelsbanken funds	6,89%	1 527 000	300,2
Swedbank Robur Fonds	6,89%	1 525 000	299,8
Första AP-fonden	5,69%	1 260 000	247,7
Mats Krantz w. related party	5,26%	1 165 434	229,1
Avanza Pension	4,17%	923 220	181,5
Niclas Eriksson w. related party	4,05%	896 729	176,3
Martin Krantz	3,97%	879 300	172,9
Anders Jöfelt	3,90%	863 433	169,8
Linda Jöfelt	3,43%	759 490	149,3
Consensus Asset Management	2,86%	632 513	124,4
Others	52,90%	11 716 531	2 303,5
<b>Total</b>	<b>100%</b>	<b>22 148 650</b>	<b>4 354,4</b>

Source: Euroclear Sweden AB per 2021-12-30





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# Annual report 2021

# Management report

The Board of Directors and Chief Executive Officer of Smart Eye AB (publ), corporate identity number 556575-8371, hereby present the annual accounts for the financial year 2021. Unless otherwise specifically stated, all amounts are presented in thousands of Swedish kronor, abbreviated TSEK. Figures in brackets are for the previous year.

## Operations

Smart Eye group is the global leader in Human Insight AI, using machine learning and a multimodal approach to understand, support, and predict human behavior in complex environments. Its mission is to bridge the gap between humans and machines for a safe and sustainable future. Smart Eye group consists of two business areas, Automotive and Research.

Solutions from the Automotive business area are embedded in next-generation vehicles, leading the way towards safer and human-centric mobility. The offering includes road-ready DMS and advanced Interior Sensing solutions, built on two decades of automotive experience and proven by 90 design wins from 14 of the world's leading car manufacturers including BMW and Geely. The business area also provides complete hardware and software solutions for fleet and aftermarket, powering vehicles on the road.

Within Research, Research Instruments develops and sells one of the world's most advanced eye tracking systems for analysing human behavior. Thanks to its unparalleled performance in complex situations, this technology offers deep insights into human behavior and human-machine interaction in automotive, aviation, assistive technology, behavioral science and many more fields. Today, the technology is used by NASA, Airbus, Boeing, Daimler, Audi, GM, Harvard University and hundreds of research organisations and universities around the world.

Affectiva's Media Analytics is humanizing technology by pioneering Emotion AI, helping companies gain a deeper understanding of how consumers engage with their content, products, and services, in automotive, media & entertainment, market research and beyond. The solutions are used by 28% of the Fortune Global 500 and 70% of the world's largest advertisers.

iMotions provides the world's leading biosensor software platform, which synchronises data streams in real time from multiple sensors. Used by over 1,300 organisations around the world, the iMotions platform enables researchers in academia and industry to gain a more comprehensive understanding of human behavior much faster and more easily.

Smart Eye was founded in 1999, and is headquartered in Sweden with offices in the US, UK, Germany, Denmark, Egypt, Singapore, China, and Japan.

## Subsidiaries

The group has subsidiaries in the US, Affectiva Inc and Smart Eye International Inc.; in Denmark, iMotions A/S; in Japan, Smart Eye Japan Co.; China, Chongqing Smart Eye Technology Co., Ltd.; and Germany, Smart Eye GmbH. There were no purchases or sales from or to the subsidiary JN Data AB, which was dormant in the financial year.

## Sustainability

Smart Eye's sustainability work aims to strengthen the group's long-term competitiveness and position. Our contribution to a more sustainable tomorrow is Human Insight AI, technology that understands, supports, and predicts human behavior in complex environments. By bridging the gap between humans and machines, enabling a deeper understanding of how people interact with each other and the world around them, our solutions drive growth in a number of industries, while also having a direct impact on individual lives.

In Automotive, our technology makes car journeys safer today, and paves the way for autonomous driving and more efficient mobility systems tomorrow. Our Research Instruments and pioneering use of Emotion AI help prevent accidents and pilot errors in aviation, new discoveries in neuroscience, psychology, and medicine, and enables more human-centric content and interfaces in the digital world, to name a few.

Committed managers and employees are a prerequisite for successful growth and development of the company's performance. We believe that a clear direction for the Group and clear assignments for our managers and employees are important conditions for this commitment.

The Group has well-developed work that includes equal opportunities plans, action programs against discrimination in the workplace, clear goals, and goal follow-up, reporting and an explicit division of responsibilities. Employee surveys, employee interviews and managers' ongoing dialogue with employees all address issues related to well-being and working conditions, as well as what opportunities exist for the individual to influence their work situation. In order to follow up on leadership and commitment questions throughout the Group, regular employee surveys are performed.

## Revenue

### Group

Net sales amounted to SEK 109.7 (65.1) million, which is an increase of 68% compared to the previous year, impacted by the consolidation of Affectiva and iMotions. The organic growth was 19%.

Net sales for Automotive business area (Automotive Solutions and Fleet & Aftermarket) during the year were SEK 47.2 million, compared with SEK 41.3 million previous year, corresponding to an increase of 14%. A growth in license revenue and continued project revenue is the reason for the increased sales.

Research business area (Research Instruments, Affectiva Media Analytics and iMotions) net sales during the period amounted to SEK 62.5 (23.8) million, the high growth of 163 % is due to the fact that Affectiva's Media Analytics business and iMotions' has been consolidated into the group numbers. The organic growth in the year is however as high as 30% which clearly demonstrates that the research market is coming back after the Covid restrictions.

### Parent company

Net sales for the period January to December 2021 amounted to SEK 78.1 (65.1) million.

## Result

### Group

EBITDA was SEK -71.7 (-55.6) million. Increased activity in the latter part of the year compared to 2020 when Covid had a greater impact explains the lower earnings. Additional personnel costs due to the acquired resources in Boston and Cairo does also have a negative effect on the result.

The operating loss was SEK -130.9 (-77.2) million. Amortisation of the surplus value created in conjunction with the Affectiva and iMotions acquisitions amounted to SEK 33.3 million.

### Parent company

The operating loss for the year totalled SEK -83.2 (-78.4) million.

### Cash flow and financial position

At year-end, in addition to cash and cash equivalents of SEK 278.4 million, the Group has an unutilised bank overdraft facility of SEK 5 million.

New share issues and stock option programmes raised SEK 477.7 million for the group in 2021. The equity ratio was 83% at year-end, compared to 91% at the corresponding point of the previous year. Cash flow from operating activities before changes in working capital in the January-December period was SEK -70.3 (-53.8) million. Cash flow after changes in working capital in the same period was SEK -102.4 (-64.3) million.

## Significant events in the financial year

### New design win from Chinese OEM

On 13 January, Smart Eye secured a new design win from one of China's largest OEMs – our third customer on the Chinese market. The order is for one new car model on a new platform, with estimated revenue of SEK 50 million, based on forecasts of the estimated product lifecycle.

### New fleet and aftermarket solution launched

On 11 March, Smart Eye introduced its first complete hardware and software DMS for commercial vehicle fleets and the automotive aftermarket. Through AIS, our proven, automotive-grade DMS software becomes available as a plug-and-play solution.

### Smart Eye acquires Affectiva

On 17 June, Smart Eye acquired 100 % of the shares of US company Affectiva Inc. Affectiva is a tech pioneer in Emotion AI and human perception AI located in Boston, MA, US with another office in Cairo, Egypt. Affectiva's revenue in 2021 amounted to SEK 44.3 million.

The purchase consideration was SEK 649.8 million based on Affectiva's financial position, of which SEK 581.6 million consisted of 2,354,668 issued Smart Eye shares, and SEK 68.2 million was paid in cash.

### Four new design wins from a global North American OEM

On 29 July Smart Eye secured four new design wins from a global North American OEM. The new order extended Smart Eye's DMS solution to four new car models, in addition to the three previously communicated design wins from this customer. The estimated revenue of the design wins is SEK 100 million, based on forecasts of the estimated product lifecycle.

### One new design win from a major Japanese OEM

On 1 October, Smart Eye announced a new design win from a global Japanese customer, with estimated

Management Report cont. »



## » Management report cont.

revenue of SEK 25 million, based on forecasts of the estimated product lifecycle. The order is for one new car model on an existing platform, which will go into production in late 2022.

### Smart Eye acquires iMotions

On 25 November Smart Eye acquired 100% of the shares in the Danish company iMotions A/S. iMotions is a provider of multimodal software for human behaviour research with offices in Copenhagen, Boston, Singapore and Berlin. iMotions revenue in 2021 amounted to SEK 90.8 million.

The purchase consideration was SEK 445.7 million (including earn-out) based on iMotions' financial position, of which SEK 215.4 million consisted of 1,019,493 newly issued Smart Eye shares, and SEK 218.8 million was paid in cash. There is maximum contingent consideration (earn-out) of SEK 50 million based on targeted gross profit and earnings (EBITDA), which is booked as a long-term debt in the Group, amounting to SEK 11.6 million.

### Proposed appropriation of earnings

The following funds are at the disposal of the Annual General Meeting:

Retained earnings	1 378 545 528 SEK
Loss for the year	-83 261 879 SEK
	<b>1 295 283 650 SEK</b>

The board of Directors proposes that these funds are carried forward:

Carried forward	1 295 283 650 SEK
	<b>1 295 283 650 SEK</b>

## Future progress, significant risks and uncertainties

### Operational risks

There are risk factors in operating activities that may negatively impact the group's business and financial position.

The capacity to retain current staff, and potential to hire new staff, are critical to the group's future progress. If key staff leave the group, or if the group is unable to attract qualified staff, this may negatively impact on the group's operating activities.

Delays to the group's development work, or an inability to keep pace with technological progress, may reduce or eliminate the group's competitiveness.

Inadequate quality of the products the group delivers could result in damage claims being filed against the group. There is also a risk that inadequate product quality could result in reduced demand for the group's products.

The group's intangible assets are highly significant to its operating activities. If the group is unable to protect its intangible assets, other parties may succeed in developing operations similar to the group's, replicating or otherwise exploiting the technology and products the group utilises and develops. If the group's measures to protect its intangible assets are inadequate or its assets are misused, this may impact on the group's operating activities. The group may also be compelled to initiate legal proceedings to protect its intangible assets and commercial secrets. Such proceedings may generate significant costs and occupy the time of the group's senior executives.

Acquisitions and integration of acquired companies could consume more resources than expected and therefore slow down other important operational activities.

### Financial risks

The group is financed by share capital and loans. If the group does not generate revenues to the extent and in the timeframe the Board of Directors judges, additional need for capital may arise. As sales increase, the group will have more currency exposure, because most of the group's sales are denominated in currencies other than Swedish kronor.

### Market risks

Human Insight AI, including eye tracking, is an emerging technology, where the group's products are currently used within behavioral analysis. There is a risk that interest in the technologies for behavioral analysis declines, which may have a negative impact on the group's sales. The group's objective is to provide eye tracking for the automotive industry, which assumes that car manufacturers decide to integrate eye tracking with safety functions and self-driving functionality into forthcoming models. There is a risk that the automotive industry decides to introduce eye tracking at a slower rate than the group expects. There is also a risk that consumers do not recognize the value of the functionality that the technology enables, which may reduce automotive industry interest in the technology, and thus the group's products. Overall, the delayed or abortive introduction of eye tracking in the automotive industry may cause a risk of lower growth rates, or the complete absence of growth potential for the group, with a negative impact on the group's operating activities.

### Coronavirus – COVID-19

The group operates on a global market, and progress of Covid-19 may have an impact on demand for the group's services and products. The group has taken, and will continue to take, the measures necessary to safeguard operations for the long term.

### Developments in Ukraine

Smart Eye is closely following recent developments in Ukraine and can initially state that neither the parent company nor any of the Group's subsidiaries have operations in Ukraine or Russia. The Group also has no employees in place in the region.

Smart Eye closely follows development and the advice and recommendations of the authorities and the international community. Furthermore, it is not excluded that the Group, partners, suppliers and/or customers may be affected in the future both directly and indirectly as a result of macroeconomic events or global disruptions in the supply chain. The Group monitors developments proactively and makes continuous assessments of how geopolitical developments affect the financial markets.

## Corporate governance

The group endeavours to maintain a high standard of corporate governance through the clarity and simplicity of its management systems and governance documents. The corporate governance of Smart Eye AB proceeds from Swedish law, mainly the Swedish Companies Act, Annual Accounts Act and the rules for issues on the First North Growth Market.

### The work of the Board of Directors

The main duty of the Board of Directors is to manage the group's operations in a way that optimally promotes shareholder interests and generates long-term healthy returns on capital. The work of the Board of Directors is formalised by legislation and regulations including the Swedish Companies Act, the Articles of Association and the Rules of Procedure the Board of Directors has adopted for its work. The Board's rules of procedure, with instructions for the Chief Executive Officer and reporting instructions, are updated and adopted annually. The Rules of Procedure define the Board's working methods and are based on considerations including a yearly cycle. Each Board meeting has one or more themes, and in addition, the Board deals with matters that are ongoing and arising.

## GROUP

# Five-year summary

Five-year summary 2017 - 2021

		2021	2020	2019	2018	2017
Net sales	TSEK	109 679	65 097	49 817	50 778	43 199
Operating expenses	TSEK	-130 909	-77 156	-105 723	-55 998	-41 463
Operating margin	%	neg.	neg.	neg.	neg.	neg.
EBITDA	TSEK	-71 711	-55 598	-87 210	-42 235	-31 301
Profit/loss after tax	TSEK	-132 713	-77 557	-106 362	-56 404	-41 896
Earnings per share	SEK	-5,99	-4,66	-7,03	-4,29	-4,23
Earnings per share after full dilution	SEK	-5,99	-4,66	-7,03	-4,29	-4,23
Return on equity	%	-21,1	-20,1	-35,8	-33,3	-57,1
Total assets	TSEK	1 745 342	386 468	297 139	204 101	101 053
Equity	TSEK	1 449 895	352 627	251 547	169 312	73 408
Equity per share	SEK	65,46	21,20	16,64	12,88	7,41
Equity per share after full dilution	SEK	63,80	20,70	16,36	12,72	7,41
Equity ratio	%	83	91	85	83	73
Cash liquidity	%	279	253	403	370	135
No. of shares		22 148 650	16 630 882	15 118 984	13 146 943	9 910 892
No. of shares after full dilution		22 726 150	17 031 082	15 379 184	13 307 143	9 910 892

Definitions of key ratios are presented in Note 1.

# Group



## GROUP

## Income statement

TSEK	Note	2021	2020
Net sales	3, 4	109 679	65 097
Cost of goods sold		-12 429	-7 577
<b>Gross Profit</b>		<b>97 250</b>	<b>57 520</b>
Sales expenses	5, 7, 8	-80 430	-64 079
Administrative expenses	5, 6, 7, 8	-58 406	-31 752
Research and development expenses	5, 7, 8	-102 117	-48 077
Other operating income		15 279	17 328
Other operating expenses		-2 485	-8 096
<b>Operating profit/loss</b>		<b>-130 909</b>	<b>-77 156</b>
<b>Profit/loss from financial items</b>			
Profit/loss from participation in associated companies		0	-6
Interest income and similar profit/loss items		0	13
Interest expenses and similar profit/loss items		-290	-256
<b>Total profit/loss from financial items</b>		<b>-290</b>	<b>-249</b>
<b>Profit/loss after financial items</b>		<b>-131 199</b>	<b>-77 405</b>
Tax on profit for the year	9	-203	-152
Deferred tax	9	-1 311	0
<b>Net profit/loss for the year</b>		<b>-132 713</b>	<b>-77 557</b>

As of 2021 Smart Eye classifies operating expenses by function instead of nature of expense. A change in the presentation of the income statement entails a change of principles, which is carried out with retroactive effect. Consequently, the income statement for the comparative period 2020 has also been prepared in accordance with a classification by function. Note 24 describes the transition from the nature of expense method to the function of expense method.

## GROUP

## Balance Sheet

TSEK	Note	2021-12-31	2020-12-31
<b>Assets</b>			
<b>Non-current assets</b>			
<i>Intangible assets</i>			
Capitalised development expenditure	10	189 227	129 415
Goodwill	11,25	760 496	0
Concessions, patents, licenses and similar rights		83	182
Trademarks	12	72 464	0
Technology	13	272 952	0
Customer relationships	14	81 735	0
		<b>1 376 957</b>	<b>129 597</b>
<i>Tangible assets</i>			
Equipment, tools, fixtures and fittings	15	4 667	4 201
<b>Total non-current assets</b>		<b>1 381 624</b>	<b>133 798</b>
<b>Current assets</b>			
<i>Inventories, etc.</i>			
Raw materials and consumables		<b>6 557</b>	<b>5 203</b>
<i>Current receivables</i>			
Trade receivables		43 011	17 538
Current tax assets		3 970	2 868
Other current receivables		13 290	1 572
Prepaid expenses and accrued income	16	18 530	6 787
		<b>78 801</b>	<b>28 765</b>
Cash and bank balances		<b>278 360</b>	<b>218 701</b>
<b>Total current assets</b>		<b>363 718</b>	<b>252 669</b>
<b>TOTAL ASSETS</b>		<b>1 745 342</b>	<b>386 468</b>

## GROUP

## » Balance Sheet, cont.

TSEK	Note	2021-12-31	2020-12-31
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital		2 215	1 663
Other contributed equity		1 867 060	677 943
Other equity		-419 378	-326 977
<b>Total equity</b>		<b>1 449 895</b>	<b>352 627</b>
<b>Provisions</b>			
Deferred taxes	17	118 992	0
<b>Total provisions</b>		<b>118 992</b>	<b>0</b>
<b>Non-current liabilities</b>			
Other non-current liabilities	18	75 822	0
Other liabilities to credit institutions	19	3 084	0
<b>Total non-current liabilities</b>		<b>78 906</b>	<b>0</b>
<b>Current liabilities</b>			
Other liabilities to credit institutions	19	0	1 667
Advance payments from customers		1 644	0
Trade payables		20 235	8 807
Other current liabilities		37 003	3 293
Accrued expenses and deferred income	20	38 667	20 074
<b>Total current liabilities</b>		<b>97 549</b>	<b>33 841</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>1 745 342</b>	<b>386 468</b>

## GROUP

## Equity

TSEK	Share capital	Other contributed equity	Other equity	Total equity
<b>Opening balance 2020-01-01</b>				
New share issue	151	177 025		177 176
Option program 2020			1 960	1 960
Translation difference			-498	-498
Net profit/loss for the year			-77 557	-77 557
<b>Equity 2020-12-31</b>	<b>1 663</b>	<b>677 943</b>	<b>-326 977</b>	<b>352 627</b>
<b>Opening balance 2021-01-01</b>				
New share issue*	232	469 063		469 295
Non-cash issue*	281	655 771		656 051
Set-off issue*	23	56 498		56 521
Option program 2018*	16	7 785		7 801
Option program 2021*			531	531
Translation difference			39 781	39 781
Net profit/loss for the year			-132 713	-132 713
<b>Equity 2021-12-31</b>	<b>2 215</b>	<b>1 867 060</b>	<b>-419 378</b>	<b>1 449 895</b>

The share capital consists of 22 148 650 shares with a quota value of SEK 0.1.

\*During the period ongoing the option program was redeemed and the share capital was increased by SEK 16 020. Also a new issue, non-cash issue and a set-off issue was registered and the share capital increased by SEK 535 756,80. New shares issue include issue expenses of SEK 24 730 000.



# Cash Flow Statement

TSEK	2021	2020
<b>Operating activities</b>		
Operating profit/loss after depreciation and amortisation	-130 909	-77 557
Reversal of depreciation and amortisation	59 198	21 558
Reversal of non-cash items	3 183	0
Finance payments received	0	13
Finance payments paid	-290	0
Tax	-1 449	2 231
<i>Cash flow from operating activities before changes in working capital</i>	-70 268	-53 755
<b>Change in working capital</b>		
Change in inventories	-1 354	-1 103
Change in trade receivables	2 775	-5 804
Change in other current receivables	-4 754	6 464
Change in trade payables	8 038	-9 356
Change in other current liabilities	-36 813	-728
<i>Changes in working capital</i>	-32 108	-10 527
<b>Cash flow from operating activities</b>	<b>-102 376</b>	<b>-64 282</b>
<b>Investing activities</b>		
Acquisition of intangible assets	-55 274	-38 767
Acquisition of tangible assets	-944	-887
Acquisition of subsidiaries	-257 584	0
<b>Cash flow from investing activities</b>	<b>-313 802</b>	<b>-39 654</b>
<b>Financing activities</b>		
New share issue	469 870	177 176
Option program	7 802	1 960
Repayment of interest-bearing liabilities	-1 592	-1 667
<b>Cash flow from financing activities</b>	<b>476 079</b>	<b>177 469</b>
<i>Translation difference</i>	-243	-216
Cash flow	59 659	73 317
Opening cash and cash equivalents	218 701	145 384
<b>Closing cash and cash equivalents</b>	<b>278 360</b>	<b>218 701</b>

# Notes

## Note 1

### Accounting policies and valuation principles

The company's annual accounts have been prepared in accordance with the Swedish Annual Accounts Act and the Swedish Accounting Standards Board's recommendation BFNAR 2012:1 Annual Accounts and Consolidated Accounts (K3). The accounting policies are unchanged from the previous year.

As of 2021 Smart Eye classifies operating expenses by function instead of nature of expense. This transition has been made to offer a more fair view of the Company and its activity. A change in the presentation of the income statement entails a change of principles, which is carried out with retroactive effect. Consequently, the income statement for the comparative period 2020 has also been prepared in accordance with a classification by function. Note 20 describes the transition from the nature of expense method to the function of expense method.

### Consolidated accounts

The consolidated accounts include those entities in which the parent company holds more than 50% of the vote directly or through subsidiaries, or otherwise exerts a controlling influence pursuant to the Swedish Annual Accounts Act (ÅRL 1:4). The consolidated financial statements have been prepared in accordance with the purchase method, which means that subsidiaries' equity on acquisition, measured as the difference between the fair value of assets and liabilities, is wholly eliminated. Accordingly, consolidated equity only includes that portion of subsidiaries' equity that is added after acquisition. The minority share of acquired net assets are measured at fair value. Goodwill is the difference between acquired identifiable net assets at the acquisition date and cost including the value of the minority interest, and is initially measured at cost.

On each closing day, the company makes an assessment of whether there is any indication that the value of goodwill is lower than the carrying amount. If such indication exists, the company computes the recoverable amount of goodwill and conducts an impairment test. In the impairment test, goodwill is allocated to the cash-generating units that are expected to benefit from the acquisition. If the recoverable amount of a cash-generating unit is measured at a lower value than its carrying amount, the impairment loss is allocated.

First, the carrying amount of the goodwill related to the cash-generating unit is impaired, and then, the carrying amount of other assets are impaired in proportion to the carrying amount of each asset in the unit.

The company's consolidated accounts cover all companies stated in note 7 of the parent company.

### Business combinations

Business combinations are reported according to the purchase method.

The purchase consideration of a business combination is measured at fair value at the acquisition date, which is computed as the total of the fair values of assets transferred, occurring all liabilities taken over, as well as equity instruments issued and expenses directly attributable to the business combination. Transaction expenses are examples of this expenditure. The purchase consideration includes contingent considerations, providing it is likely that the purchase consideration will be restated at a later date, and the amount can be measured reliably. The cost of the acquired entity is restated in the balance sheet and when the final purchase consideration is specified, albeit no later than one year after the acquisition date.

The identifiable acquired assets and liabilities taken over are accounted at fair value as of the acquisition date with the following exemptions:

- Pension obligations are measured pursuant to K3 chapter 28 Employee Benefits
- Deferred tax assets and deferred tax liabilities are measured pursuant to K3 chapter 29 Income Tax
- Liabilities for share-based payment are measured according to K3 chapter 26 Share-based Payment
- Contingent liabilities, which are measured pursuant to K3 chapter 21 Provisions, Contingent Liabilities and Contingent Assets

A provision for expenditure for restructuring of the acquired entity's operations is included in the acquisition analysis only to the extent that the acquired entity already satisfied the criteria for reporting a provision prior to the acquisition date.

### Foreign currencies

Monetary asset and liability items in foreign currencies

are measured at the exchange rate on the balance sheet date. Transactions in foreign currencies are translated at the spot rate on the transaction date.

## Revenue

### Goods

Sales of goods are recognised when the significant risks and benefits are transferred from the seller to the buyer in accordance with the terms of sale. Sales are recognised after deductions for VAT, discounts and exchange rate differences for sales in foreign currencies. System revenue for which there are non-delivered components that are a condition for the functionality of the system is recognised when these components are delivered.

### Service assignments

For service assignments at current prices the revenue attributable to a completed service assignment is recognised in pace with completion of the work and the delivery or use of the material.

### Capitalised work for own account

See further under intangible assets.

### Furlough support

Central government support for compensation of furloughed staff in the year is recognised as other operating revenue.

### License revenue

The company receives license revenue from customers based on the number of vehicles produced. According to agreements, the number of cars manufactured is reported quarterly and revenue is then recognised, based on this report.

## Income tax

### Current tax

Current tax is measured based on the tax rates and tax rules on the balance sheet date. Deferred tax is measured based on the tax rates and tax rules decided prior to the balance sheet date. Deferred tax liabilities concerning temporary differences that are related to investments in subsidiaries are not recognised in the consolidated accounts, since the Parent Company may in all cases determine the time of reversal of the temporary differences, and it is not deemed to be probable that reversal will take place in the foreseeable future.

### Deferred tax

Deferred tax assets pertaining to loss carry-forwards or other future tax deductions are recognised to the extent that it is likely that the loss carry-forwards can be offset against surpluses in conjunction with future taxation.

Receivables and liabilities are recognised net only when there is a legal right of offset. Current tax, like the change in deferred tax, is recognised in profit or loss unless the tax is attributable to an event or transaction that is recognised directly in shareholders' equity.

## Leases

Lease arrangements where essential, the economic benefits and risks attributable to the leased item remain with the lessor, are classified as operating leases in the consolidated accounts, where payments under these arrangements are recognised as an expense on a straight-line basis over the lease term.

Lease arrangements where essential, the economic risks and rewards of owning an asset are transferred from the lessor to an entity in the group are classified as finance leases in the consolidated accounts. Finance leases imply that rights and obligations are recognised as an asset and liability respectively in the balance sheet. The asset and liability are initially measured at the lower of the asset's fair value and the present value of minimum lease payments. Expenditure directly attributable to the lease arrangement is added to the value of the asset. Variable expenses are reported in the period they occur. The leased asset is depreciated on a straight-line basis over its estimated useful life.

The group has operating leases only.

## Employee benefits

Employee benefits in the form of salaries, holiday pay, paid sick leave, etc., as well as pensions, are recognised as they are earned. The company only has defined-contribution pension plans. There are no other long-term employee benefits.

### Defined-contribution pension plans

Under defined-contribution pension plans, the company pays fixed contributions to a separate independent legal entity and does not have any obligation to pay additional contributions. The company's earnings are charged with expenses as the benefits are earned, which normally corresponds to the time when the premium is paid.

» Note 1 cont.

## » Note 1 cont.

## Intangible assets

Intangible non-current assets are recognised at cost less accumulated amortisation and any impairment. Cost includes costs directly attributable to the acquisition of the asset. Intangible non-current assets are amortised on a straight-line basis over the asset's estimated useful life. Straight-line amortisation is applied. Amortisation is recognised as a cost in the income statement.

### Development work

Development costs are capitalised if the project is assumed to be of significant future value to the company. Capitalisation pertains to development costs for a specific application and which are clearly delineated for the project. The group applies the capitalisation model for internally developed intangible assets.

*The following amortisation schedule is applied:*

Capitalised development expenditure: 10 years  
Goodwill: 10 years  
Trademarks: 10 years  
Technology: 5-10 years  
Customer relationships: 10 years  
Other intangible assets: 10 years

### Acquisitions as part of a business combination

Intangible assets acquired in a business combination are identified and reported separately from goodwill when they fulfill the definition of an intangible asset, and their fair value can be measured reliably. The cost of such intangible assets consists of fair value at the acquisition date. After first-time recognition, the intangible assets acquired in a business combination are reported at cost less accumulated amortisation and any accumulated impairment in the same way as intangible assets acquired separately.

## Tangible assets

Property, plant and equipment is recognised at cost less accumulated depreciation and any impairment.

Cost includes costs directly attributable to the acquisition of the asset.

Additional expenses concerning assets that are not divided into components are added to the cost if they are estimated to give the company future economic benefit, to the extent that the asset's performance increases in relation to the asset's value on the acquisition date. Expenses for ongoing repair and maintenance are recognised as costs. Property, plant and equipment is depreciated on a straight-line basis over the asset's esti-

mated useful life. Any residual value of the asset is taken into account when determining the assets' depreciable amounts. Straight-line depreciation is applied. Depreciation is recognised as a cost in the income statement.

*The following depreciation schedules are applied:*

Equipment and tools: 5 years  
Computers: 3 years

If an asset's carrying amount exceeds its estimated recoverable amount, the asset is immediately written down to its recoverable amount.

## Impairment

When there is an indication that an asset or a group of assets is impaired, their carrying amount is measured. In those cases the carrying amount exceeds estimated recoverable amount, the carrying amount is immediately impaired to this recoverable amount.

## Financial instruments

Financial instruments recognised on the balance sheet include trade receivables, other receivables, trade payables and loans. The instruments are recognised on the balance sheet when the company becomes party to the contractual terms of the instrument.

Financial assets are derecognised from the balance sheet when the right to receive cash flows from the instrument has expired or has been transferred, and the company has transferred essentially all risks and benefits associated with the right of ownership. Financial liabilities are derecognised from the balance sheet when the obligations in the contract are met or otherwise lapse.

### Trade and other receivables

Receivables are recognised as current assets, with the exception of items falling due more than 12 months after the balance sheet date, which are classified as non-current assets. Receivables are recognised in the amount at which they are expected to be received less individually assessed doubtful debts.

### Loans and trade payables

Loans and trade payables are initially recognised at cost after deducting transaction costs. If the recognised amount differs from the amount to be repaid on the due date, the difference is accrued as an interest cost or interest income over the term of the loan. This means that as of the due date the recognised amount corresponds to the amount to be repaid.

## Inventories

Inventories are measured at the lower of cost and net realisable value on the balance sheet date. Cost is



calculated according to the first-in, first-out (FIFO) principle. Net sales value is the sales value after deducting calculated costs that can be attributed directly to the sales transaction.

#### Provisions

A provision is recognised on the balance sheet when the company has a formal or informal obligation due to an event that has occurred, and it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made.

#### Cash Flow Statement

The cash flow statement presents the changes in the company's cash and cash equivalents during the financial year. The cash flow statement is prepared according to the indirect method. The recognised cash flow solely includes transactions that involve incoming and outgoing cash payments.

#### Definitions of key ratios

##### Operating profit/loss

Profit/loss before financial income and expenses, and tax.

##### Operating margin

Operating profit in relation to net sales.

##### EBITDA

Operating profit before depreciation and amortization.

##### Liquidity ratio

Current assets excluding inventories and work in progress as a percentage of current liabilities.

##### Equity ratio

Equity and untaxed reserves (less deferred tax) in relation to total assets.

##### Return on equity

Profit after tax in relation to shareholders' equity during the period.

##### Earnings per share

Profit for the period divided by the number of shares outstanding at the end of the period.

##### Equity per share

Shareholders' equity divided by the number of shares at the end of the period.

##### Dividend per share

Dividend for the period divided by the number of shares outstanding at the time of the dividend.

##### Employees

Number of employees at the end of the period.

## Note 2

### Estimates and assessments

Within the Group, estimates and assessments are made about the future. The estimates for accounting purposes that result from these will seldom correspond to the actual result. The estimates and assumptions that involve a significant risk of significant adjustments in the reported values of assets and liabilities in the coming years are dealt with in outline below.

#### Capitalization of development expenditure

Recognition of capitalized development expenditure requires assessments to determine whether expenditure can be capitalized during the course of a project. Factors affecting the assessment are which development phase the project is in and what future earnings capacity the projects expected to contribute. To ensure this is managed correctly, the Group continuously works with project documentation and follow-up, monitoring expenditure incurred in relation to the project budget, and forecasts of future earning capacity. A change in the assessment of the projects' earnings capacity could have significant consequences on the Group's earnings in future earning capacity.

#### Purchase price allocation

The purchase price allocation determines the acquisition value of the acquired unit's identifiable assets and liabilities, where the assets and liabilities are valued at their fair value at the time of acquisition.

#### Conditional purchase price

For the acquisition of iMotions, there is a conditional purchase price (earn-out) of a maximum of SEK 50 million, which is based on gross profit and EBITDA for the financial years 2021 and 2022. The conditional purchase price for 2021 was determined based on actual gross profit and EBITDA for the financial year 2021. The conditional purchase price based on the outcome for fiscal year 2022 has been calculated on forecast gross profit and EBITDA. The conditional consideration for both years is reported in the Group as a long-term liability.

#### Valuation of goodwill and other intangible assets

An impairment test of reported goodwill and other intangible assets is performed every year. The calculations on which the assessment is based are based on estimated future cash flows in the units concerned. The discount rate applied is estimated based on the current circumstances, risk, etc.

» Note 2 cont.

## » Note 2 cont.

### Estimates and assessments

#### Tax carry forwards

The Group's tax loss carry forwards have not been measured and are not recognized as a deferred tax asset. These tax loss carry forwards will be valued only when the Group has established a level of earnings which management with confidence estimate will lead to taxable profits.

Apart from the above, no assessments or estimates have been made that have a significant effect on the amounts reported in the financial report or would entail a significant risk of a significant adjustment of the reported values of assets or liabilities during the next financial year.

## Note 3

### Net sales per business area

	2021	2020
Research	62 483	23 776
Automotive	47 196	41 321
	<b>109 679</b>	<b>65 097</b>

## Note 4

### Net sales by geographical market

	2021	2020
Nordics	3 600	1 891
Europe excl. Nordics	66 069	36 525
North America	21 247	13 085
Asia	17 648	13 574
Other markets	1 114	22
	<b>109 679</b>	<b>65 097</b>

## Note 5

### Operating leases

Future minimum lease payments to be paid for non-cancellable leases.

	2021	2020
Due for payment within one year	20 225	7 544
Due for payment later than one year but within five years	10 056	2 841
Due for payment later than within five years	0	0
	<b>30 281</b>	<b>10 385</b>
Lease payments expensed in the period	19 824	8 085

## Note 6

### Auditors' fee

	2021	2020
<i>Deloitte AB</i>		
Audit assignment	470	260
Other services	2 395	0
	<b>2 865</b>	<b>260</b>
<i>Grant Thornton</i>		
Audit assignment	7	0
Other services	140	0
	<b>147</b>	<b>0</b>
<i>PWC AB</i>		
Audit assignment	0	130
Other services	0	8
	<b>0</b>	<b>138</b>
Total auditors' fee	<b>3 012</b>	<b>398</b>

Audit assignment means the auditor's fee for the statutory audit. This work includes review of the annual report and bookkeeping, the Board of Directors' and CEO's administration, and fees for audit consulting, in connection with the audit assignment.

## Note 7

### Employees

Average number of employees divided by country and gender

	2021	2020
Sweden		
Women	19	16
Men	77	78
<b>Total Sweden</b>	<b>96</b>	<b>94</b>
Denmark		
Women	15	0
Men	28	0
<b>Total Denmark</b>	<b>43</b>	<b>0</b>
Germany		
Women	0	0
Men	2	0
<b>Total Germany</b>	<b>2</b>	<b>0</b>
USA		
Women	19	0
Men	28	4
<b>Total USA</b>	<b>47</b>	<b>4</b>
Egypt		
Women	26	0
Men	32	0
<b>Total Egypt</b>	<b>58</b>	<b>0</b>
Japan		
Women	1	1
Men	1	1
<b>Total Japan</b>	<b>2</b>	<b>2</b>
China		
Women	2	2
Men	1	0
<b>Total China</b>	<b>3</b>	<b>2</b>
Singapore		
Women	2	0
Men	0	0
<b>Total Singapore</b>	<b>2</b>	<b>0</b>

	2021	2020
UK		
Women	0	0
Men	1	0
<b>Total UK</b>	<b>1</b>	<b>0</b>
Canada		
Women	0	0
Men	1	0
<b>Total Canada</b>	<b>1</b>	<b>0</b>
India		
Women	0	0
Men	1	0
<b>Total India</b>	<b>1</b>	<b>0</b>

	2021	2020
<b>Total group</b>		
Women	84	19
Men	172	83
	<b>256</b>	<b>102</b>

#### Number of Presidents and other Senior Executives

	2021	2020
Women	4	1
Men	11	5
	<b>15</b>	<b>6</b>

#### Directors and Senior Executives

	2021	2020
Women	3	2
Men	8	4
	<b>11</b>	<b>6</b>

## » Note 7 cont.

### Employees

#### Salaries, fees and other remuneration

	2021		2020	
	Fee	Other remuneration	Fee	Other remuneration
<i>Board of Directors</i>				
Anders Jöfelt, Chairman	457	0	350	0
Lars Olofsson, Deputy Chairman	318	0	225	0
Mats Krantz, Director	208	0	150	0
Magnus Jonsson, Director	217	0	150	0
Eva Elmstedt, Director	300	0	150	0
Cecilia Wachtmeister, Director	250	0	150	0
<b>Total</b>	<b>1 750</b>	<b>0</b>	<b>1 175</b>	<b>0</b>

#### Salaries, fees and other remuneration (TSEK)

	2021	2020
Board of Directors	1 750	1 175
CEO	2 544	1 631
Other Senior Executives	14 427	5 025
Other employees	80 370	59 101
<b>Total</b>	<b>99 091</b>	<b>66 932</b>

#### Social security charges and pensions

	2021	2020
Statutory and contractual social security charges	14 508	11 750
Pension costs	8 332	6 960
<b>Total</b>	<b>22 839</b>	<b>18 710</b>
<i>Pension costs:</i>		
CEO	0	0
Other Senior Executives	1 304	1 155
Other employees	7 028	5 805

#### Salaries and remuneration to the CEO and other Senior Executives

	Salary		Pension charges		Social security charges		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
CEO	2 544	1 631	0	0	799	512	3 343	2 143
Other Senior Executives	14 427	5 025	1 304	1 155	1 819	1 579	17 549	7 759
							<b>20 892</b>	<b>9 902</b>

The CEO is subject to six months' mutual notice of termination. On termination by the company, the CEO is not entitled to any severance pay. There are no agreements on severance pay with the company's other employees.



## Note 8

### Share-based payments

The Annual General Meeting on 15 May 2019, resolved to establish an incentive programme aimed at senior executives and staff. When fully utilizing the company's incentive program 100,000 shares will be issued, leading to a total dilution effect of a maximum of approximately 0.76% of the share capital and number of votes. The subscription price for shares subscribed for via the warrants is SEK 163 per share. The premium per warrants, which has been calculated using to the Black-Scholes model, was SEK 17. The subscription of shares may take place during the period 1 June 2022 through 30 June 2022.

At its Annual General Meeting on 8 May 2020, the company resolved to establish an incentive programme for senior executives and staff. On full exercise of the company's incentive program, 100,000 shares would be issued. The subscription price of shares subscribed with warrants is SEK 116 per share. The premium per warrant, computed according to the Black-Scholes model, was SEK 14. Subscription is possible in the period 1 June 2023 to 30 June 2023 inclusive. The Annual General Meeting on 8 May 2020 also resolved on an incentive programme for a number of Directors. On full exercise of this incentive program, 40,000 shares would be issued. The subscription price of shares subscribed with warrants is SEK 133.9 per share. The premium per warrant, computed according to the Black & Scholes model, was SEK 14. Subscription is possible in the period 1 June 2024 to 30 June 2024 inclusive

The Annual General Meeting on 14 April 2021, resolved to establish an incentive programme aimed at senior executives and staff. On full exercise of the company's incentive program, 200,000 shares will be issued. Subject to certain conditions is met, the subscription price for shares is subscribed with warrants SEK 218.75 per share. Subscription is possible in the period 1 June 2024 to 30 June 2024 inclusive.

In addition, the company resolved at an Extraordinary General Meeting on 8 October 2021 to set up an incentive program for senior executives and staff in the acquisition in the acquired company Afectiva. On full exercise of the company's incentive program, 137,500 shares will be issued. Subject to certain conditions are met, the subscription price for shares subscribed with warrants SEK 218.75 per share. Subscription is possible in the period 15 November 2024 to 15 December 2024 inclusive.

## Note 9

### Income tax

	2021	2020
Current tax	-203	-152
Deferred tax	-1 311	0
	<b>-1 514</b>	<b>-152</b>
<b>Reconciliation of tax expense</b>		
Accounted profit/loss before tax	-131 199	-77 405
Tax at current tax rate 20,6 % (21,4% last year)	27 027	16 565
Effect of foreign tax rates	- 247	0
Tax effect on non-deductible expenses	-175	-55
Tax effect on non-taxable income	834	0
Tax effect on emissions costs	5 094	2 427
Tax effect on non-recognized loss carry-forward	-29 003	-19 089
Tax effect amortization of goodwill	-5 377	0
Other	333	0
<b>Total tax</b>	<b>-1 514</b>	<b>-152</b>

Non-recognized loss carry-forwards amount to TSEK 507 483 (358 312).

## Note 10

### Capitalized development expenditure

	2021	2020
Acquisition value	226 897	188 158
Capitalised expenses for the year	55 274	38 739
Disposals	0	0
- Through acquisitions from subsidiaries	43 687	0
- Translation difference	0	0
<b>Closing accumulated cost</b>	<b>325 858</b>	<b>226 897</b>
Opening amortisation	-97 482	-78 409
Taken over accumulated depreciations	-17 010	0
Amortisation for the year	-22 139	-19 073
Disposals	0	0
<b>Closing accumulated amortisation</b>	<b>-136 631</b>	<b>-97 482</b>
<b>Closing residual value according to plan</b>	<b>189 227</b>	<b>129 415</b>

## Note 11

### Goodwill

	2021	2020
Acquisition value	0	0
Disposals	0	0
- Through acquisitions from subsidiaries	761 381	0
- Translation difference	25 958	0
<b>Closing accumulated cost</b>	<b>787 339</b>	<b>0</b>
Opening amortisation	0	0
Disposals	0	0
Amortisation for the year	-26 104	0
Translation difference	-740	0
<b>Closing accumulated amortisation</b>	<b>-26 844</b>	<b>0</b>
<b>Closing residual value according to plan</b>	<b>760 496</b>	<b>0</b>

## Note 12

### Trademark

	2021	2020
Acquisition value	0	0
Disposals	0	0
- Through acquisitions from subsidiaries	72 789	0
- Translation difference	1 369	0
<b>Closing accumulated cost</b>	<b>74 158</b>	<b>0</b>
Opening amortisation	0	0
Disposals	0	0
Amortisation for the year	-1 659	0
Translation difference	-36	0
<b>Closing accumulated amortisation</b>	<b>-1 695</b>	<b>0</b>
<b>Closing residual value according to plan</b>	<b>72 464</b>	<b>0</b>

## Note 13

### Technology

	2021	2020
Acquisition value	0	0
Disposals	0	0
- Through acquisitions from subsidiaries	259 455	0
- Translation difference	15 023	0
<b>Closing accumulated cost</b>	<b>274 479</b>	<b>0</b>
Opening amortisation	0	0
Disposals	0	0
Amortisation for the year	-1 483	0
Translation difference	-42	0
<b>Closing accumulated amortisations</b>	<b>-1 525</b>	<b>0</b>
<b>Closing residual value according to plan</b>	<b>272 952</b>	<b>0</b>

**Note 14****Customer relations**

	2021	2020
Acquisition value	0	0
Disposals	0	0
- Through acquisitions from subsidiaries	81 470	0
- Translation difference	4 446	0
<b>Closing accumulated cost</b>	<b>85 915</b>	<b>0</b>
Opening amortisation	0	0
Disposals	0	0
Amortisation for the year	-4 047	0
Translation difference	-132	0
<b>Closing accumulated amortisations</b>	<b>-4 179</b>	<b>0</b>
<b>Closing residual value according to plan</b>	<b>81 735</b>	<b>0</b>

**Note 15****Equipment, tools, fixtures and fittings**

	2021	2020
Opening cost	10 619	9 953
Changes in the year		
- Disposals	0	0
- Purchases	926	666
Through acquisitions from subsidiaries	15 843	0
Translation difference	0	0
<b>Closing accumulated cost</b>	<b>27 388</b>	<b>10 619</b>

**» Note 15 cont.****Equipment, tools, fixtures and fittings**

	2021	2020
Opening depreciation	-6 650	-4 273
Changes in the year		
- Disposals	0	0
- Depreciation	-3 769	-2 367
Through acquisitions from subsidiaries	-12 302	0
Translation difference	0	0
<b>Closing accumulated depreciation</b>	<b>-22 721</b>	<b>-6 639</b>
<b>Closing residual value according to plan</b>	<b>4 667</b>	<b>3 980</b>

**Note 16****Prepaid expenses and accrued income**

	2021	2020
Prepaid rents	2 631	603
Accrued income and ongoing contribution projects	9 644	2 282
Other prepaid expenses	6 255	3 902
<b>Total prepaid expenses and accrued income</b>	<b>18 530</b>	<b>6 787</b>

**Note 17****Deferred tax**

Temporary differences exist in cases where assets or debts accounted and taxable values are different. Temporary differences regarding the following items have resulted in deferred tax liabilities.

	2021	2020
Temporary differences on intangible and tangible assets	118 992	0
<b>Total deferred tax liability</b>	<b>118 992</b>	<b>0</b>

**Note 18****Other long-term liabilities**

	2021	2020
Due between 1 and 5 years after the balance sheet date	75 822	0
Due later than 5 years after balance sheet date	0	0
<b>Total long-term debt</b>	<b>75 822</b>	<b>0</b>

**Note 19****Liabilities to credit institutions**

	2021	2020
Due within 1 year of the balance sheet date	0	1 667
Due between 1 and 5 years after the balance sheet date	3 084	0
Due later than 5 years after balance sheet date	0	0
<b>Total liabilities to credit institutions</b>	<b>3 084</b>	<b>1 667</b>

**Note 20****Accrued social security charges and deferred income**

	2021	2020
Accrued salaries and holiday pay	15 732	8 434
Accrued social security contributions	2 872	2 650
Accrued expenses	7 770	3 210
Deferred income	9 080	2 647
Other items	3 213	3 133
<b>Total accrued expenses and deferred income</b>	<b>38 667</b>	<b>20 074</b>

**Note 21****Transactions with related parties**

There were no transactions with related parties in the year apart from those stated in notes 7 and 8.

**Note 22****Pledged assets and contingent liabilities**

	2021	2020
<b>For own provisions and liabilities</b>		
Floating charge	15 000	15 000
	<b>15 000</b>	<b>15 000</b>



## Note 23

### Events after the balance sheet day

After the end of the financial year, during the period up to 8 April 2022, the company received another design win from Europe's largest OEMs. The estimated revenue of the order is SEK 50 million based on estimated product life cycle projections. The potential of further design wins on this new platform is estimated at SEK 500 million.

#### Comment on developments in Ukraine

Smart Eye is closely following recent developments in Ukraine and can initially state that neither the parent company nor any of the Group's subsidiaries have operations in Ukraine or Russia. The Group also has no employees in place in the region.

Smart Eye closely follows development and the advice and recommendations of the authorities and the international community. Furthermore, it is not excluded that the Group, partners, suppliers and/or customers may be affected in the future both directly and indirectly as a result of macroeconomic events or global disruptions in the supply chain. The Group monitors developments proactively and makes continuous assessments of how geopolitical developments affect the financial markets.

## Note 24

### Transitions to income statement classified by function

2020-01-01 - 2020-12-31

	Information	Income statement classified by nature of expense	Adjustment capitalised work for own account	Adjustment other operating income	Adjustment other external costs	Adjustment personnel costs	Adjustment depreciation and amortisation	Income statement classified by function
Net sales		65 097						65 097
Capitalised work for own account	1	26 059	-26 059					0
Other operating revenue	2	9 232		-9 232				0
Cost of goods sold					-5 973	-1 604		-7 577
<b>Gross profit</b>		<b>100 388</b>	<b>-26 059</b>	<b>-9 232</b>	<b>-5 973</b>	<b>-1 604</b>	<b>0</b>	<b>57 520</b>
Other external costs	3	-65 664			65 664			0
Personnel costs	4	-90 322				90 322		0
Depreciation and amortisation of tangible and intangible assets	5	-21 558					21 558	0
Sales expenses					-26 903	-37 176		-64 079
Administrative expenses					-18 797	-10 471	-2 484	-31 752
Research and development expenses			26 059		-13 991	-41 071	-19 073	-48 077
Other operating income				17 328				17 328
Other operating expenses				-8 096				-8 096
<b>Operating profit/loss</b>		<b>-77 156</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-77 156</b>
<b>Financial income and expenses</b>								
Profit/loss from participations in associated companies		-6						-6
Interest income and similar profit items		13						13
Interest costs and similar loss items		-256						-256
<b>Total profit/loss from financial items</b>		<b>-249</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-249</b>
<b>Profit/loss after financial items</b>		<b>-77 405</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-77 405</b>
Tax on profit for the period		-152						-152
<b>Net profit/loss for the period</b>		<b>-77 557</b>						<b>-77 557</b>

1. Capitalised work for own account is allocated to research and development expenses due to the transition to income statement classified by function.

2 Other operating revenue consists of exchange rate differences and also of contributions from EU and the government. Other operating revenue will be presented as other operating income or other operating expenses due to the transition to income statement classified by function.

3 Other external costs have been allocated to cost of goods sold, sales expenses, administrative expenses and research and development expenses. Administrative expenses consists of eg. costs of premises, audit costs and other overhead costs.

4 Personnel costs have been allocated depending on what function the employees had during 2020, which in the group principally was within research and development. The board fees are included in the personnel costs and have been allocated to administrative expenses.

5 Depreciations and amortisations related to research and development expenses principally consist of amortisations of capitalised expenditure of development work.

## Note 25

### Acquisition of subsidiaries

On June 17th, 2021, Smart Eye acquired 100 % of the shares in the US company Affectiva Inc. The technology company is a business within Emotion AI and Human Perception AI.

On November 25th, 2021, Smart Eye acquired 100 % of the shares in the Danish company iMotions A/S. The technology company is a supplier of multimodal software intended for research in human behavior.

Preliminary purchase price allocation (MSEK)	Affectiva	iMotions
Capitalized development expenditure	0	26,6
Trademarks	20,4	52,4
Technology	239,1	20,3
Customer relationships	70,6	10,8
Tangible assets	2,5	0,7
Trade receivables	12,8	16,4
Other receivables	12,9	2,1
Cash and cash equivalents	23,6	5,8
Interest-bearing liabilities	-21,4	-3,0
Accounts payable	-1,7	-1,3
Other operating liabilities	-24,5	-18,9
Deferred tax	-89,2	-23,1
<b>Net identifiable assets and liabilities</b>	<b>245,2</b>	<b>88,8</b>
Group goodwill	404,5	356,9
<b>Total purchase price</b>	<b>649,8</b>	<b>445,7</b>
<i>Regulated with:</i>		
Cash and cash equivalent	68,2	218,8
Issued shares	-497,9	-215,4
Deferred shares	83,7	-
Conditional purchase price (earn out)	-	-11,6
<i>Net cash outflow of acquisition:</i>		
Purchase price paid in cash	-68,2	-218,8
Less: cash in acquired company	23,6	5,8
<b>Net cash group</b>	<b>-44,6</b>	<b>-213,0</b>

# Parent



PARENT

# Income Statement

TSEK	Note	2021	2020
Net sales	3, 4	78 094	65 097
Cost of goods sold		-8 952	-7 577
<b>Total operating revenue</b>		<b>69 142</b>	<b>57 520</b>
Sales expenses	5, 7, 8	-61 133	-63 503
Administrative expenses	5, 6, 7, 8	-40 278	-31 752
Research and development expenses	5, 7, 8	-59 962	-49 335
Other operating income		11 381	16 811
Other operating expenses		-2 371	-8 096
<b>Operating profit/loss</b>		<b>-83 221</b>	<b>-78 355</b>
<b>Profit/loss from financial items</b>			
Profit/loss from participations in associated companies		0	-6
Interest income and similar profit/loss items		0	13
Interest expenses and similar profit/loss items		-41	-256
<b>Total profit/loss from financial items</b>		<b>-41</b>	<b>-249</b>
<b>Profit/loss after financial items</b>		<b>-83 262</b>	<b>-78 604</b>
Tax on profit for the year	9	0	0
Deferred tax	9	0	0
<b>Net profit/loss for the year</b>		<b>-83 262</b>	<b>-78 604</b>

As of 2021 Smart Eye classifies operating expenses by function instead of nature of expense. A change in the presentation of the income statement entails a change of principles, which is carried out with retroactive effect. Consequently, the income statement for the comparative period 2020 has also been prepared in accordance with a classification by function. Note 20 describes the transition from the nature of expense method to the function of expense method.

PARENT

# Balance Sheet

TSEK	Note	2021-12-31	2020-12-31
<b>Assets</b>			
<b>Non current assets</b>			
<i>Intangible assets</i>			
Capitalised development expenditures	10	149 002	129 415
Concessions, patents, licences and similar rights		83	182
<b>Total intangible assets</b>		<b>149 085</b>	<b>129 597</b>
<i>Tangible assets</i>			
Equipment, tools, fixtures and fittings	12	2 297	3 980
<i>Financial assets</i>			
Participations in Group companies	11	1 100 229	1 580
Long term receivables Group companies		40 840	0
		<b>1 141 069</b>	<b>1 580</b>
<b>Total non-current assets</b>		<b>1 292 451</b>	<b>135 157</b>
<b>Current assets</b>			
Inventories, etc.			
Raw materials and consumables		6 557	5 203
<i>Current receivables</i>			
Trade receivables		15 129	17 538
Receivables from group companies		596	29
Current tax assets		3 970	2 868
Other current receivables		2 568	1 572
Prepaid expenses and accrued income	13	12 091	5 745
		<b>34 354</b>	<b>27 752</b>
<b>Cash and bank balances</b>		<b>267 346</b>	<b>218 141</b>
<b>Total current assets</b>		<b>308 257</b>	<b>251 096</b>
<b>TOTAL ASSETS</b>		<b>1 600 708</b>	<b>386 253</b>

PARENT

» Balance Sheet, cont.

TSEK	Note	2021-12-31	2020-12-31
<b>Equity</b>			
<b>Restricted equity</b>			
Share capital		2 215	1 663
Share premium reserve		21 914	21 914
Fund for development costs		138 626	115 370
		<b>162 754</b>	<b>138 947</b>
<b>Non-restricted equity</b>			
Share premium reserve		1 845 145	656 028
Retained loss		-466 602	-365 273
Net profit/loss for the year		-83 262	-78 604
		<b>1 295 282</b>	<b>212 151</b>
<b>Total equity</b>			
		<b>1 458 037</b>	<b>351 098</b>
<b>Non-current liabilities</b>			
Other non-current liabilities	14	75 822	0
<b>Total non-current liabilities</b>			
		<b>75 822</b>	<b>0</b>
<b>Current liabilities</b>			
Other liabilities to credit institutions	15	0	1 667
Advance payments from customers		1 644	0
Trade payables		13 899	8 773
Liabilities to group companies		1 672	2 063
Other current liabilities		25 713	2 858
Accrued expenses and deferred income	16	23 921	19 794
<b>Total Current liabilities</b>			
		<b>66 849</b>	<b>35 155</b>
<b>TOTAL EQUITY AND LIABILITIES</b>			
		<b>1 600 708</b>	<b>386 253</b>

PARENT

Equity

TSEK	Share capital	Share premium reserve (restricted)	Fund for development costs (restricted)	Share premium reserve (non-restricted)	Other non-restricted equity	Profit/loss for the year	Total equity
<b>Opening balance 2020-01-01</b>	<b>1 512</b>	<b>21 914</b>	<b>92 156</b>	<b>479 003</b>	<b>-237 202</b>	<b>-106 817</b>	<b>250 566</b>
Appropriation of profit					- 106 817	106 817	
New share issue	151			177 025			177 176
Option program 2020					1 960		1 960
Fund for development costs			38 740		-38 740		
Reversal of fund for development costs			-15 526		15 526		
Net profit/loss for the year						-78 604	-78 604
<b>Equity 2020-12-31</b>	<b>1 663</b>	<b>21 914</b>	<b>115 370</b>	<b>656 028</b>	<b>-365 273</b>	<b>-78 604</b>	<b>351 098</b>
<b>Opening balance 2021-01-01</b>	<b>1 663</b>	<b>21 914</b>	<b>115 370</b>	<b>656 028</b>	<b>-365 273</b>	<b>-78 604</b>	<b>351 098</b>
Appropriation of profit					-78 604	78 604	
New share issue*	232			469 063			469 295
Non-cash issue*	281			655 771			656 051
Set-off issue*	23			56 498			56 521
Option program 2018*	16			7 785			7 801
Option program 2021*					531		531
Fund for development costs			41 001		-41 001		
Reversal of fund for development costs			-17 746		17 746		
Net profit/loss for the year						-83 262	-83 262
<b>Equity 2021-12-31</b>	<b>2 215</b>	<b>21 914</b>	<b>138 626</b>	<b>1 845 145</b>	<b>-466 602</b>	<b>-83 262</b>	<b>1 458 037</b>

The share capital consists of 22 148 650 shares with a quota value of SEK 0.1.

\*During the period ongoing the option program was redeemed and the share capital was increased by SEK 16 020. Also a new issue, non-cash issue and a set-off issue was registered and the share capital increased by SEK 535 756,80. New shares issue include issue expenses of SEK 24 730 000.

# Cash Flow Statement

TSEK	2021	2020
<b>Operating activities</b>		
Operating profit/loss after depreciation and amortisation	-83 221	-78 355
Reversal of depreciation and amortisation	23 980	21 558
Reversal of non-cash items	295	0
Finance payments received	0	13
Finance payments paid	-41	-262
Tax	-1 449	2 231
<i>Cash flow from operating activities before changes of working capital</i>	-60 436	-54 815
<b>Change in working capital</b>		
Change in inventories	-1 354	-1 103
Change in trade receivables	2 149	-5 804
Change in other current receivables	-8 772	7 008
Change in trade payables	5 126	-9 100
Change in other current liabilities	6 087	-945
<i>Changes in working capital</i>	3 236	-9 944
<b>Cash flow from operating activities</b>	<b>-57 200</b>	<b>-64 759</b>
<b>Investing activities</b>		
Acquisition of intangible assets	-40 997	-38 767
Acquisition of tangible assets	-789	-666
Acquisition of subsidiaries	-327 815	-252
<b>Cash flow from investing activities</b>	<b>-369 601</b>	<b>-39 685</b>
<b>Financing activities</b>		
New share issue	469 870	177 176
Option program	7 802	1 960
Repayment of interest-bearing liabilities	-1 667	-1 667
<b>Cash flow from financing activities</b>	<b>476 005</b>	<b>177 469</b>
Cash flow	49 204	73 023
Opening cash and cash equivalents	218 141	145 118
<b>Closing cash and cash equivalents</b>	<b>267 346</b>	<b>218 141</b>

# Notes

## Note 1

### Accounting policies and valuation principles

The company's annual accounts have been prepared in accordance with the Swedish Annual Accounts Act and the Swedish Accounting Standards Board's recommendation BFNAR 2012:1 Annual accounts and consolidated accounts (K3). The accounting policies are unchanged from the previous year.

As of 2021 Smart Eye classifies operating expenses by function instead of nature of expense. This transition has been made to offer a more fair view of the Company and its activity. A change in the presentation of the income statement entails a change of principles, which is carried out with retroactive effect. Consequently, the income statements for the comparative periods 2020 have also been prepared in accordance with a classification by function. Note 20 describes the transition from the nature of expense method to the function of expense method.

### Foreign currencies

Monetary asset and liability items in foreign currencies are measured at the exchange rate on the balance sheet date. Transactions in foreign currencies are translated at the spot rate on the transaction date.

### Revenue

#### Goods

Sales of goods are recognised when the significant risks and benefits are transferred from the seller to the buyer in accordance with the terms of sale. Sales are recognised after deductions for VAT, discounts and exchange rate differences for sales in foreign currencies. System revenue for which there are non-delivered components that are a condition for the functionality of the system is recognised when these components are delivered.

#### Service assignments

For service assignments at current prices the revenue attributable to a completed service assignment is recognised in pace with completion of the work and the delivery or use of the material.

#### Capitalised work for own account

See further under intangible assets.

#### Furlough support

Central government support for compensation of furloughed staff in the year is recognised as other operating revenue.

#### License revenue

The company receives license revenue from customers based on the number of vehicles produced. According to agreements, the number of cars manufactured is reported quarterly and revenue is then recognised, based on this report.

### Income tax

#### Current tax

Current tax is measured based on the tax rates and tax rules on the balance sheet date. Deferred tax is measured based on the tax rates and tax rules decided prior to the balance sheet date. Deferred tax liabilities concerning temporary differences that are related to investments in subsidiaries are not recognised in the consolidated accounts, since the Parent Company may in all cases determine the time of reversal of the temporary differences, and it is not deemed to be probable that reversal will take place in the foreseeable future.

#### Deferred tax

Deferred tax assets pertaining to loss carry-forwards or other future tax deductions are recognised to the extent that it is likely that the loss carry-forwards can be offset against surpluses in conjunction with future taxation.

Receivables and liabilities are recognised net only when there is a legal right of offset. Current tax, like the change in deferred tax, is recognised in profit or loss unless the tax is attributable to an event or transaction that is recognised directly in shareholders' equity.

### Leases

Lease arrangements where essentially, the economic rewards and risks attributable to the leased item remain with the lessor, are classified as operating leases by the parent company, where payments under these arrangements are recognised as an expense on a straight-line basis over the lease term.

The parent company has operating leases only.

### Employee benefits

Employee benefits in the form of salaries, holiday pay, paid sick leave, etc., as well as pensions, are recognised as they are earned. The company only has defined-contribution pension plans. There are no other long-term employee benefits.

**Note 1 cont >>**



## Note 1 cont.

### *Defined-contribution pension plans*

Under defined-contribution pension plans, the company pays fixed contributions to a separate independent legal entity and does not have any obligation to pay additional contributions. The company's earnings are charged with expenses as the benefits are earned, which normally corresponds to the time when the premium is paid.

### **Intangible assets**

Intangible non-current assets are recognised at cost less accumulated amortisation and any impairment. Cost includes costs directly attributable to the acquisition of the asset. Intangible non-current assets are amortised on a straight-line basis over the asset's estimated useful life. Straight-line amortisation is applied. Amortisation is recognised as a cost in the income statement.

### *Development work*

Development costs are capitalised if the project is assumed to be of significant future value to the company. Capitalisation pertains to development costs for a specific application and which are clearly delineated for the project. The parent company applies the capitalisation model for internally developed intangible assets.

### *The following amortisation schedule is applied:*

Capitalised development expenditure 10 years  
Other intangible assets: 10 years

### **Tangible assets**

Property, plant and equipment is recognised at cost less accumulated depreciation and any impairment.

Cost includes costs directly attributable to the acquisition of the asset.

Additional expenses concerning assets that are not divided into components are added to the cost if they are estimated to give the company future economic benefit, to the extent that the asset's performance increases in relation to the asset's value on the acquisition date. Expenses for ongoing repair and maintenance are recognised as costs. Property, plant and equipment is depreciated on a straight-line basis over the asset's estimated useful life. Any residual value of the asset is taken into account when determining the assets' depreciable amounts. Straight-line depreciation is applied. Depreciation is recognised as a cost in the income statement.

### *The following depreciation schedules are applied:*

Equipment and tools: 5 years  
Computers: 3 years

If an asset's carrying amount exceeds its estimated recoverable amount, the asset is immediately written down to its recoverable amount.

### **Impairment**

When there is an indication that an asset or a group of assets is impaired, their carrying amount is measured. In those cases the carrying amount exceeds estimated recoverable amount, the carrying amount is immediately impaired to this recoverable amount.

### **Financial instruments**

Financial instruments recognised on the balance sheet include trade receivables, other receivables, trade payables and loans. The instruments are recognised on the balance sheet when the company becomes party to the contractual terms of the instrument.

Financial assets are derecognised from the balance sheet when the right to receive cash flows from the instrument has expired or has been transferred, and the company has transferred essentially all risks and benefits associated with the right of ownership. Financial liabilities are derecognised from the balance sheet when the obligations in the contract are met or otherwise lapse.

### *Trade and other receivables*

Receivables are recognised as current assets, with the exception of items falling due more than 12 months after the balance sheet date, which are classified as non-current assets. Receivables are recognised in the amount at which they are expected to be received less individually assessed doubtful debts.

### *Loans and trade payables*

Loans and trade payables are initially recognised at cost after deducting transaction costs. If the recognised amount differs from the amount to be repaid on the due date, the difference is accrued as an interest cost or interest income over the term of the loan. This means that as of the due date the recognised amount corresponds to the amount to be repaid.

**Note 1 cont >>**

## Note 1 cont.

### **Shares and participations in subsidiaries**

Shares and participations in subsidiaries are recognised at cost after deducting for any impairment. Cost includes the purchase consideration paid for shares and acquisition expenses.

### **Inventories**

Inventories are measured at the lower of cost and net realisable value on the balance sheet date. Cost is calculated according to the first-in, first-out (FIFO) principle. Net sales value is the sales value after deducting calculated costs that can be attributed directly to the sales transaction.

### **Provisions**

A provision is recognised on the balance sheet when the company has a formal or informal obligation due to an event that has occurred, and it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made.

### **Cash Flow Statement**

The cash flow statement presents the changes in the company's cash and cash equivalents during the financial year. The cash flow statement is prepared according to the indirect method. The recognised cash flow solely includes transactions that involve incoming and outgoing cash payments.

### **Definitions of key ratios**

#### *Operating profit/loss*

Profit/loss before financial income and expenses, and tax.

#### *Operating margin*

Operating profit in relation to net sales.

#### *EBITDA*

Operating profit before depreciation and amortization.

#### *Liquidity ratio*

Current assets excluding inventories and work in progress as a percentage of current liabilities.

#### *Equity ratio*

Equity and untaxed reserves (less deferred tax) in relation to total assets.

#### *Return on equity*

Profit after tax in relation to shareholders' equity during the period.

#### *Earnings per share*

Profit for the period divided by the number of shares outstanding at the end of the period.

#### *Equity per share*

Shareholders' equity divided by the number of shares at the end of the period.

#### *Dividend per share*

Dividend for the period divided by the number of shares outstanding at the time of the dividend.

#### *Employees*

Number of employees at the end of the period.

## Note 2

### Estimates and assessments

Within the parent company, estimates and assessments are made about the future. The estimates for accounting purposes that result from these will seldom correspond to the actual result. The estimates and assumptions that involve a significant risk of significant adjustments in the reported values of assets and liabilities in the coming years are dealt with in outline below.

#### Capitalization of development expenditure

Recognition of capitalized development expenditure requires assessments to determine whether expenditure can be capitalized during the course of a project. Factors affecting the assessment are which development phase the project is in and what future earnings capacity the projects expected to contribute. To ensure this is managed correctly, the company continuously works with project documentation and follow-up, monitoring expenditure incurred in relation to the project budget, and forecasts of future earning capacity. A change in the assessment of the projects' earnings capacity could have significant consequences on the company's earnings in future earning capacity.

#### Valuation shares in subsidiaries

An impairment test is performed each year in accordance with the accounting principle for financial assets described in Note 1. The calculations are the basis for the assessment based on estimated future cash flows, based on next-of-kin year financial budgets. Furthermore, an average discount rate in local currency after tax has been used in the calculations. If any of these factors are appreciated significantly lower, there may be a need for impairment.

#### Conditional purchase price

For the acquisition of iMotions, there is a conditional purchase price (earn-out) of a maximum of SEK 50 million, which is based on gross profit and EBITDA for the financial years 2021 and 2022. The conditional purchase price for 2021 was determined based on actual gross profit and EBITDA for the financial year 2021. The conditional purchase price based on the outcome for fiscal year 2022 has been calculated on forecast gross profit and EBITDA. The conditional consideration for both years is reported in the parent company as a long-term liability.

#### Tax carry forwards

The company's tax loss carry forwards have not been measured and are not recognized as a deferred tax asset. These tax loss carry forwards will be valued only when the company has established a level of earnings which management with confidence estimate will lead to taxable profits.

Apart from the above, no assessments or estimates have been made that have a significant effect on the amounts reported in the financial report or would entail a significant risk of a significant adjustment of the reported values of assets or liabilities during the next financial year.

## Note 3

### Net sales per business area

	2021	2020
Research Instruments	30 898	23 776
Automotive Solutions	47 196	41 321
	<b>78 094</b>	<b>65 097</b>

## Note 4

### Net sales by geographical markets

	2021	2020
The North	1 705	1 891
Europe excl the North	45 141	36 525
North America	15 366	13 085
Asia	15 842	13 574
Other markets	41	22
	<b>78 094</b>	<b>65 097</b>

## Note 5

### Operating leases

Future minimum lease payments to be paid for non-cancellable leases.

	2021	2020
Due for payment within one year	9 360	7 544
Due for payment later than one year but within five years	2 101	2 841
Due for payment later than within five years	0	0
	<b>11 461</b>	<b>10 385</b>
Lease payments expensed in the period	11 799	8 085

## Note 6

### Auditors' fee

	2021	2020
<i>Deloitte AB</i>		
Audit assignment	470	260
Other services	2 395	0
	<b>2 865</b>	<b>260</b>
<i>PWC AB</i>		
Audit assignment	0	130
Other services	0	8
	<b>0</b>	<b>138</b>
Total auditors' fee	<b>2 865</b>	<b>398</b>

Audit assignment means the auditor's fee for the statutory audit. This work includes review of the annual report and bookkeeping, the Board of Directors' and CEO's administration, and fees for audit consulting in connection with the audit assignment.

## Note 7

### Employees

#### Average number of employees divided by country and gender

	2021	2020
Sweden		
Women	19	16
Men	77	78
<b>Total Sweden</b>	<b>96</b>	<b>94</b>

#### Average number of employees

	2021	2020
Women	19	16
Men	77	78
	<b>96</b>	<b>94</b>

## » Note 7 cont.

### Employees

#### Directors and Senior Executives

	2021	2020
Women	2	2
Men	4	4
	<b>6</b>	<b>6</b>

#### Number of Presidents and other Senior Executives

	2021	2020
Women	1	1
Men	5	5
	<b>6</b>	<b>6</b>

#### Salaries, fees and other remuneration (TSEK)

	2021	2020
Board of Directors	1 750	1 175
CEO	2 544	1 631
Other Senior Executives	5 701	5 025
Other employees	52 531	47 103
<b>Total</b>	<b>62 527</b>	<b>54 934</b>

#### Social security charges and pensions

	2021	2020
Statutory and contractual social security charges	13 808	11 750
Pension costs	7 407	6 960
<b>Total</b>	<b>21 214</b>	<b>18 710</b>
<i>Pensions costs:</i>		
CEO	0	0
Other Senior Executives	1 300	1 155
Other employees	6 107	5 805

## » Note 7 cont.

### Salaries, fees and other remuneration

	2021		2020	
	Fee	Other remuneration	Fee	Other remuneration
<i>Board of Directors</i>				
Anders Jöfelt, Chairman	457	0	350	0
Lars Olofsson, Deputy Chairman	318	0	225	0
Mats Krantz, Director	208	0	150	0
Magnus Jonsson, Director	217	0	150	0
Eva Elmstedt, Director	300	0	150	0
Cecilia Wachtmeister, Director	250	0	150	0
<b>Total</b>	<b>1 750</b>	<b>0</b>	<b>1 175</b>	<b>0</b>

### Salaries and remuneration to the CEO and other Senior Executives

	Salary		Pension costs		Social security costs		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
CEO	2 544	1 631	0	0	799	512	3 343	2 143
Other Senior Executives	5 701	5 025	1 300	1 155	1 791	1 579	8 792	7 759
							<b>12 136</b>	<b>9 902</b>

The CEO is subject to six months' mutual notice of termination. On termination by the company, the CEO is not entitled to any severance pay. There are no agreements on severance pay with the company's other employees.

## Note 8

### Share-based payments

The Annual General Meeting on 15 May 2019, resolved to establish an incentive programme aimed at senior executives and staff. When fully utilizing the company's incentive program 100,000 shares will be issued, leading to a total dilution effect of a maximum of approximately 0.76% of the share capital and number of votes. The subscription price for shares subscribed for via the warrants is SEK 163 per share. The premium per warrants, which has been calculated using to the Black-Scholes model, was SEK 17. The subscription of shares may take place during the period 1 June 2022 through 30 June 2022.

At its Annual General Meeting on 8 May 2020, the company resolved to establish an incentive programme for senior executives and staff. On full exercise of the company's incentive program, 100,000 shares would be issued. The subscription price of shares subscribed with warrants is SEK 116 per share. The premium per warrant, computed according to the Black-Scholes model, was SEK 14. Subscription is possible in the period 1 June 2023 to 30 June 2023 inclusive. The Annual General Meeting on 8 May 2020 also resolved on an incentive programme for a number of Directors. On full exercise of this incentive program, 40,000 shares would be issued. The subscription price of shares subscribed with warrants is SEK 133.9 per share. The premium per warrant, computed according to the Black & Scholes model, was SEK 14. Subscription is possible in the period 1 June 2024 to 30 June 2024 inclusive.

## » Note 8 cont.

The Annual General Meeting on 14 April 2021, resolved to establish an incentive programme aimed at senior executives and staff. On full exercise of the company's incentive program, 200,000 shares will be issued. Subject to certain conditions is met, the subscription price for shares is subscribed with warrants SEK 218.75 per share. Subscription is possible in the period 1 June 2024 to 30 June 2024 inclusive.

In addition, the company resolved at an EGM on 8 October 2021 to establish an incentive program for senior executives and staff of the acquired company Afectiva. On full exercise of the company's incentive program, 137,500 shares would be issued. Subject to the fulfilment of certain conditions, the subscription price of shares subscribed with warrants is SEK 218,75 per share. Subscription is possible in the period 15 November 2024 to 15 December 2024 inclusive.

## Note 9

### Income tax

	2021	2020
Current tax	0	0
Deferred tax	0	0
	<b>0</b>	<b>0</b>
<b>Reconciliation of tax expense</b>		
Accounted profit/loss before tax	-83 262	-78 604
Tax at current tax rate, 20,6% (21,4 % previous year)	17 152	16 821
Tax effect on emission costs	5 094	2 427
Tax effect of non-deductible expenses	-77	-55
Tax effect of non-recognized loss carry-forwards	-22 170	-19 193
<b>Recognised tax expense</b>	<b>0</b>	<b>0</b>

Non-recognized loss carry-forwards amount to TSEK 466 304 (358 312).

## Note 10

### Capitalized development expenditure

	2021	2020
Acquisition value	226 897	188 158
Capitalized expenses for the year	40 997	38 739
Disposals	0	0
<b>Closing accumulated cost</b>	<b>267 894</b>	<b>226 897</b>
Opening amortisation	-97 482	-78 409
Amortisation for the year	-21 410	-19 073
Disposals	0	0
<b>Closing accumulated amortisation</b>	<b>-118 892</b>	<b>-97 482</b>
<b>Closing residual value according to plan</b>	<b>149 002</b>	<b>129 415</b>

## Note 11

### Participations in Group companies

	2021	2020
Opening cost	1 580	1 303
Change in the year	1 098 650	277
Closing accumulated cost	1 100 229	1 580
<b>Closing residual value according to plan</b>	<b>1 100 229</b>	<b>1 580</b>



## » Note 11 cont.

### Participations in Group companies

Group	Corp. ID no.	Registered office	Share of equity (%)
JN Data AB	556563-7849	Gothenburg	100
Smart Eye International Inc.	6303763	Delaware	100
Smart Eye Japan Co. Ltd	0104-01-139423	Tokyo	100
Chongqing Smart Eye Technology Co. Ltd.	MA60M7N03Q	Chongqing	100
Smart Eye GmbH	DE345508843	Hildesheim	100
Affectiva, Inc.	26-4691073	Boston	100
iMotions A/S	33 50 40 04	Copenhagen	100

Parent company	Corp. ID no.	No. of shares	Share of equity (%)	Share of vote (%)	Book value 2021-12-31	Book value 2020-12-31
JN Data AB	556563-7849	1 000	100	100	371	371
Smart Eye International Inc.	6303763	1 000	100	100	90	90
Smart Eye Japan Co. Ltd	0104-01-139423	2 000	100	100	842	842
Chongqing Smart Eye Technology Co. Ltd.	MA60M7N03Q	1 000	100	100	277	277
Smart Eye GmbH	DE345508843	25 000	100	100	256	--
Affectiva, Inc.	26-4691073	35 261 757	100	100	652 694	--
iMotions A/S	33 50 40 04	710 957	100	100	445 701	--
					<b>1 100 229</b>	<b>1 580</b>

## Note 12

### Equipment, tools, fixtures and fittings

	2021	2020
Opening cost	10 619	9 953
Changes in the year		
- Disposals	0	0
- Purchases	788	666
Closing accumulated cost	11 407	10 619
Opening depreciation	-6 638	-4 273
Changes in the year		
- Disposals	0	0
- Depreciation	-2 472	-2 367
Closing accumulated depreciation	-9 110	-6 639
<b>Closing residual value</b>	<b>2 297</b>	<b>3 980</b>

## Note 13

### Prepaid expenses and accrued income

	2021	2020
Prepaid rents	610	603
Accrued income and ongoing contribution projects	9 644	2 282
Other prepaid expenses	1 837	2 862
<b>Total prepaid expenses and accrued income</b>	<b>12 091</b>	<b>5 745</b>

## Note 14

### Other long-term liabilities

	2021	2020
Due for payment later than one year but within five years	75 822	0
Due for payment later than within five years	0	0
<b>Total other long-term liabilities</b>	<b>75 822</b>	<b>0</b>

## Note 15

### Liabilities to credit institutions

	2021	2020
Due for payment within one year	0	1 667
Due for payment later than one year but within five years	0	0
Due for payment later than within five years	0	0
<b>Total liabilities to credit institutions</b>	<b>0</b>	<b>1 667</b>

## Note 16

### Accrued expenses and deferred income

	2021	2020
Accrued salaries and holiday pay	8 979	8 434
Accrued social security charges	2 821	2 650
Accrued expenses	7 839	3 210
Deferred income	1 086	2 647
Other items	3 197	2 853
<b>Total accrued expenses and deferred income</b>	<b>23 921</b>	<b>19 794</b>

## Note 17

### Transactions with related parties

There were no transactions with related parties in the year apart from those stated in notes 7 and 8.

## Note 18

### Pledged assets and contingent liabilities

	2021	2020
<b>For own provisions and liabilities</b>		
Floating charges	15 000	15 000
	<b>15 000</b>	<b>15 000</b>

## Note 19

### Proposed appropriation of earnings

The Board of Directors propose that the funds available for appropriation:

Retained earnings	1 378 545 528 SEK
Loss for the year	-83 261 879 SEK
	<b>1 295 283 650 SEK</b>
Carried forward	1 295 283 650 SEK

## Note 20

### Transitions to income statement classified by function

2020-01-01 - 2020-12-31

	Information	Income statement classified by nature of expense	Adjustment capitalised work for own account	Adjustment other operating income	Adjustment other external costs	Adjustment personnel costs	Adjustment depreciation and amortisation	Income statement classified by function
Net sales		65 097						65 097
Capitalised work for own account	1	26 059	-26 059					0
Other operating revenue	2	8 715		-8 715				0
Cost of goods sold					-5 973	-1 604		-7 577
<b>Gross profit</b>		<b>99 871</b>	<b>-26 059</b>	<b>-8 715</b>	<b>-5 973</b>	<b>-1 604</b>	<b>0</b>	<b>57 520</b>
Other external costs	3	-78 149			78 149			0
Personnel costs	4	-78 519				78 519		0
Depreciation and amortisation of tangible and intangible assets	5	-21 558					21 558	0
Sales expenses					-39 387	-24 115		-63 503
Administrative expenses					-18 797	-10 471	-2 484	-31 752
Research and development expenses			26 059		-13 991	-42 330	-19 073	-49 335
Other operating income				16 811				16 811
Other operating expenses				-8 096				-8 096
<b>Operating profit/loss</b>		<b>-78 355</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-78 355</b>
<b>Financial income and expenses</b>								
Profit/loss from participations in associated companies		-6						-6
Interest income and similar profit items		13						13
Interest costs and similar loss items		-256						-256
<b>Total profit/loss from financial items</b>		<b>-249</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-249</b>
<b>Profit/loss after financial items</b>		<b>-78 604</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-78 604</b>
Tax on profit for the period		0						0
<b>Net profit/loss for the period</b>		<b>-78 604</b>						<b>-78 604</b>

1 Capitalised work for own account is allocated to research and development expenses due to the transition to income statement classified by function.

2 Other operating revenue consists of exchange rate differences and also of contributions from EU and the government. Other operating revenue will be presented as other operating income or other operating expenses due to the transition to income statement classified by function.

3 Other external costs have been allocated to cost of goods sold, sales expenses, administrative expenses and research and development expenses. Administrative expenses consists of eg. costs of premises, audit costs and other overhead costs.

4 Personnel costs have been allocated depending on what function the employees had during 2020, which in the parent company principally was within research and development. The board fees are included in the personnel costs and have been allocated to administrative expenses.

5 Depreciations and amortisations related to research and development expenses principally consist of amortisations of capitalised expenditure of development work.

The Income Statements and Balance Sheets will be submitted to the AGM on 28 April 2022 for approval.

Gothenburg, April 2022

**Martin Krantz**

CEO

**Anders Jöfelt**

Chairman of the board

**Cecilia Wachtmeister**

Board member

**Eva Elmstedt**

Board member

**Mats Krantz**

Board member

**Magnus Jonsson**

Board member

**Lars Olofsson**

Board member

Our Audit Report was presented in April 2022.  
Deloitte AB

**Harald Jagner**

Authorized Public Accountant

# Auditor's report

To the general meeting of the shareholders of Smart Eye Aktiebolag (publ)  
corporate identity number 556575-8371

This is a translation of the Swedish language original. In the events of any differences between this translation and the Swedish original the latter shall prevail.

## Report on the annual accounts and consolidated accounts

### Opinions

We have audited the annual accounts and consolidated accounts of Smart Eye Aktiebolag (publ) for the financial year 2021-01-01 - 2021-12-31. The annual accounts and consolidated accounts of the company are included on pages 54-95 in this document.

In our opinion, the annual accounts and consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company and the group as of 31 December 2021 and their financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the group.

### Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

### Other Information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1-53 and 99-101. The Board of Directors and

the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

### Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect

a material misstatement when it exists. 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 annual accounts and consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts and consolidated accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. 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.

- Obtain an understanding of the company's internal control relevant to our 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.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Managing Director.

- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting in preparing the annual accounts and consolidated accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the company's and the group's ability to continue as a going concern. 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 annual accounts and consolidated accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts and consolidated accounts. 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 and a group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the annual

accounts and consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated accounts. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

## Report on other legal and regulatory requirements

### Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of Smart Eye Aktiebolag (publ) for the financial year 2021-01-01 - 2021-12-31 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit to be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

### Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

**Auditor's Report cont. »**



## » Auditors' report cont.

### *Responsibilities of the Board of Directors and the Managing Director*

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

### *Auditor's responsibility*

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company,
- or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropria-

tions of the company's profit or loss are not in accordance with the Companies Act.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional scepticism throughout the audit. The examination of the administration and the proposed appropriations of the company's profit or loss is based primarily on the audit of the accounts. Additional audit procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the company's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion concerning discharge from liability. As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss we examined whether the proposal is in accordance with the Companies Act.

Gothenburg, April 2022  
Deloitte AB  
*Signature on Swedish original*

Harald Jagner  
Authorized Public Accountant

## Board of Directors



*Left to right:*

### **MAGNUS JONSSON**

*Board member since 2014*

**Date of birth:** 1956

**Educational background:** MSc, Mechanical Engineering, Chalmers University of Technology

**Other appointments:** Chairman of the Board of Powercell AB, AstaZero AB, BIL Sweden Adm AB, Board member of Nilsson Special Vehicles AB, Leading Light AB, AB Magnus Jonsson and Magnus Jonsson Consulting AB

**Previous appointments in the last five years:** Chairman of the Board of TechRoi Fuel Systems AB, Board Member of Väst kustens Affärsänglar AB, SenseAir AB, Kongsberg Automotive AS and LeanNova AB

**Holdings:** 3,000 shares and 10,000 options

### **EVA ELMSTEDT**

*Board member since 2019*

**Date of birth:** 1960

**Educational background:** Bachelor's degree in Economics and Computer Science from Indiana University of Pennsylvania, USA, and Stockholm School of Economics

**Other appointments:** Chairman of Arelion (former Telia International Carrier), Omegapoint, Proact IT Group and Semcon and Board member of Addlife, Arjo and Elanders.

**Previous appointments in the last five years:** EVP of Global Services at Nokia Networks and Nokia Siemens Networks and senior positions at Ericsson AB, the telecom operator 3 and Semcon

**Holdings:** 5,500 shares and 10,000 options

### **ANDERS JÖFELT**

*Chairman of the Board since 2017*

*(Board member since 2012)*

**Date of birth:** 1975

**Educational background:** MSc, Computer Engineering, Lund University's Faculty of Engineering

**Other appointments:** None  
**Previous appointments in the last five years:** None  
**Holdings:** 863 433 aktier

### **CECILIA WACHTMEISTER**

*Board member since 2019*

**Date of birth:** 1966

**Educational background:** MSc in Industrial Economics from the Institute of Technology at Linköping University

**Other appointments:** Chief Commercial Officer at KAMBI Plc. Cecilia is also a Board member of HMS Networks AB and IAR Systems

**Previous appointments in the last five years:** Senior positions within Ericsson AB

**Holdings:** 5,500 shares and 10,000 options

### **LARS OLOFSSON**

*Deputy Chairman*

*Board member since 2017*

**Date of birth:** 1951

**Educational background:** Graduate in Business Administration 1975, University of Lund, Sweden PED, IMD Lausanne, Switzerland

**Other appointments:** Advisory Board member of Zytara Inc.

**Previous appointments in the last five years:** Deputy Chairman of Axfood AB, Board member of Compass/Bata shoes, Chairman of TCC Global NV, Board member of Axel Johnson AB, Senior Advisor of SICPA SA

**Holdings:** 45,000 shares and 10,000 options

### **MATS KRANTZ**

*Board member since 1999*

*(Chairman of the Board 1999-2017)*

**Date of birth:** 1947

**Educational background:** Master Brewer at the Scandinavian School of Brewing in Copenhagen.

**Other appointments:** Chairman of Letter Cube Digital AB, and Board member of M. Irwin & Krantz AB

**Previous appointments in the last five years:** Board member of Ost kustens Fartygsassistans AB

**Holdings:** Mats Krantz holds 978,384 shares personally and 180,800 shares via related parties

## Executive Management Team



Left to right:

### ANDERS LYRHEDEN

*Chief Financial Officer*  
Employed since 2017  
**Date of birth:** 1965  
**Educational background:** School of Economics: Bachelor of Managerial Economics, Gothenburg 1991  
**Other appointments:** Chairman of the Board, RanLOS AB  
**Previous appointments in the last five years:** None  
**Holdings:** 38,000 shares private and 14,000 through companies, 26,600 options

### MARTIN KRANTZ

*Founder & CEO of Smart Eye*  
Employed since 1999  
**Date of birth:** 1971  
**Educational background:** MSc, Engineering Physics, Chalmers University of Technology  
**Other appointments:** Board member at 1928 Diagnostics  
**Previous appointments in the last five years:** None  
**Holdings:** 879,300 shares and 27,500 options

### RANA EL KALIOUBY

*Founder of Affectiva & Deputy CEO of Smart Eye*  
Employed since 2009 (founding of Affectiva)  
**Date of birth:** 1978  
**Educational background:** PhD from the Computer Laboratory at the University of Cambridge and a Post Doctorate at MIT. BSc and MSc in Computer Science from the American University in Cairo, Egypt.  
**Other appointments:** Executive Fellow at the Harvard Business School, Board of Trustees at The American University in Cairo, Board member at Videra Health, Board member at Young Presidents' Organization: New England Chapter  
**Previous appointments in the last five years:** Board member and CEO at Affectiva  
**Holdings:** 141,022 shares, 7 500 Options

### PETER HARTZBECH

*Founder & CEO iMotions*  
Employed since 2005 (founding of iMotions)  
**Date of birth:** 1976  
**Educational background:** Bachelor's degree in Business Administration from Copenhagen Business School, MIT Advanced Management Program in Boston, MA.  
**Other appointments:** Co-founder of ByFounders Early Stage Venture fund  
**Previous appointments in the last five years:** None  
**Holdings:** 367,096 shares

## Group Management

### HENRIK LIND

*Chief Research Officer*  
Smart Eye since 2017

### MARTIN RYDBERG

*Chief Technical Officer*  
Smart Eye since 2000

### GABI ZIJDERVELD

*Chief Marketing Officer*  
Affectiva since 2014

### TIM PEACOCK

*Chief Integration Officer*  
and VP, Data Management  
Affectiva since 2011

### JAY TURCOT

*VP, AI*  
Affectiva since 2011

### MANAL RAMSIS

*General Manager*  
Smart Eye Egypt  
Affectiva since 2019

### GRAHAM PAGE

*Global Managing Director*  
of Media Analytics  
Affectiva since 2019

### DETLEF WILKE

*VP of Automotive Solutions*  
Smart Eye since 2021

### SOLMAZ SHAHMEHR

*VP of Research Instruments*  
Smart Eye since 2009

### MAGNUS BRUNZELL

*VP of Applied AI Systems*  
Smart Eye since 2019

## Annual General Meeting

### INVITATION TO THE ANNUAL GENERAL MEETING OF SMART EYE AKTIEBOLAG (PUBL)

Smart Eye Aktiebolag (publ), reg. no. 556575-8371, with its registered office in Gothenburg, has convened an Annual General Meeting to be held on Thursday 28 April 2022 at 17.00 – 18.00 at the premises of Smart Eye, Första Långgatan 28B, Gothenburg.

The complete notice has been published in Post- och Inrikes Tidningar and is available on the Company's website, [www.smarteye.se](http://www.smarteye.se).

### Right to participate, notice to attend and voluntary advance voting

Shareholders who wish to participate at the annual general meeting shall:

- Firstly, be entered in the share register maintained by Euroclear Sweden AB no later than on Wednesday 20 April 2022 (for nominee-registered shares, also see "Nominee-registered shares" below),
- Secondly, notify the Company of their intention to participate at the annual general meeting no later than on Friday 22 April 2022, by mail to Smart Eye Aktiebolag (publ), AGM 2022, Att. Anders Lyrheden, Första Långgatan 28 B, SE-413 27 Gothenburg, Sweden or by e-mail to [arsstamma@smarteye.se](mailto:arsstamma@smarteye.se) or by submitting their advance vote in accordance with the instructions under "Voluntary advance voting" below to the Company no later than on Friday 22 April 2022.

The shareholders shall in their notice to attend state name, personal identification number or company registration number, shareholding, address, phone number and, as applicable, information about any advisors (maximum two), proxies or representatives.

### Nominee-registered shares

In order to be entitled to participate at the annual general meeting, shareholders who have their shares registered in the name of a nominee must temporarily re-register the shares in their own name. Shareholders who wish to make such re-registration, so-called voting rights registration, must make such request with their nominee well in advance of Friday 22 April 2022, at which time the re-registration must have been made.

### Proxy, etc.

Shareholders who intends to be represented by proxy shall issue a dated power of attorney for the proxy. If the power of attorney is executed by a legal person a certified copy of the certificate of registration or equivalent should be attached. The power of attorney may not be older than one year, however, it may be older provided that the power of attorney according to its wording is valid for a longer period, although, not more than five years from its issuance. The certificate of registration must not have been issued earlier than one year before. The power of attorney in original and, where applicable, the certificate of registration should be submitted to the Company to the address set forth above well in advance of the annual general meeting. A proxy form is available on the Company's website, [www.smarteye.com](http://www.smarteye.com).

### Voluntary advance voting

The shareholders may exercise their voting rights at the annual general meeting by voting in advance, so called postal voting in accordance with Section 4 of the Act (2022:121) on temporary exceptions to facilitate the execution of general meetings in companies and other associations.

A special form shall be used for advance voting. The form is available on [www.smarteye.se](http://www.smarteye.se). The advance voting form is considered as the notification of attendance to the annual general meeting. The completed voting form must be submitted to Smart Eye no later than Friday 22 April 2022.

The completed and signed form shall be sent to Smart Eye Aktiebolag (publ), AGM 2022, Att. Anders Lyrheden, Första Långgatan 28 B, SE-413 27 Gothenburg, Sweden. A completed form may also be submitted by e-mail and is to be sent to [arsstamma@smarteye.se](mailto:arsstamma@smarteye.se). If the shareholder is a legal entity, a certificate of incorporation or a corresponding document shall be enclosed to the form. If the shareholder votes in advance by proxy, a power of attorney shall be enclosed to the form. The shareholder may not provide special instructions or conditions in the voting form. If so, the vote (i.e. the advance vote in its entirety) is invalid.

Further instructions and conditions are included in the form for advance voting.

## Calendar

Annual General Meeting	April 28th 2022
Interim report Jan-Mar 2022	April 28th 2022
Interim report Apr-Jun 2022	August 26th 2022
Interim report Jul-Sep 2022	October 20th 2022
Year-End Report Oct-Dec 2022	February 22nd 2023

## Contact

### MARTIN KRANTZ

CEO  
Phone +46 070-329 26 98  
[martin.krantz@smarteye.se](mailto:martin.krantz@smarteye.se)

### ANDERS LYRHEDEN

CFO/IR  
Phone +46 070-320 96 95  
[anders.lyrheden@smarteye.se](mailto:anders.lyrheden@smarteye.se)





SMILE	100
JOY	99.991
CONTEMPT	0.00
ANGER	0.00
EXPRESSIVENESS	100.00



# smart eye

**Smart Eye AB**  
 Första Långgatan 28B  
 SE-413 27 Gothenburg,  
 Sweden  
 Phone +46 31 60 61 60  
 org. nr: 556575-8371  
[www.smarteye.ai](http://www.smarteye.ai)

