WAC

DÜNYA OTOMOTİV KONFERANSI

4-5 Ekim 2018
Wyndham Grand Levent

WORLD AUTOMOTIV CONFERENCE

4-5 October 2018
Wyndham Grand Levent
ISTANBUL

#wac2018

Do you know how the changes in the automotive industry will affect your business?

Turkey was the largest growing economy globally in 2017, with record automotive sales and production figures. The automotive industry is the pillar of the Turkish economy and with the full support of the government, as well as the new Domestic Car Project, there are fantastic opportunities to be considered.

Now in its 5th year, the World Automotive Conference - WAC2018 - is without a doubt one of the "most influential" automotive conference in Turkey, bringing together the region's leading automotive manufacturers and suppliers, as well as global technology solution providers.

The goal this year, is not just to provide a platform for networking about what the "future" will look like; but to truly understand what is happening in the market now and provide real-case studies, lessons learnt and specific ways to seize the current opportunities within the automotive industry.

We look forward to welcoming you at WAC!

Kind regards,
Stephanie May
Commercial Director at Worldwide Partnerships Limited

Sponsors

Platinum Sponsors

Gold Sponsors

ICRON   TURKCELL   UNIVERSAL ROBOTS

OMRON   TRUMPF

Silver Sponsors

BORUSAN LOJİSTİK   MOBILEYE An Intel Company

Bronze Sponsors

GBMC Global Business Management Consultants   Romax TECHNOLOGY   STEEL MMK METALURJİ

Exhibitors

CDT   STÄUBLI   ICRON   OMRON   UNIVERSAL ROBOTS

BİAS MÜHENDİSLİK   SCHAEFFLER   FESTO   opthema teknoloji   GCS Global Certification Services   onare Endüstriyel Ambalajlama

GBMC Global Business Management Consultants   Romax TECHNOLOGY   ROBO AUTOMATION & ENGINEERING   ONS   TRUMPF   KALKANCI

YEKTAMAK ENGINEERING AND MACHINERY   okaner   TURKCELL   Ravago   item

Leo mühendislik engineering

Partners

Automotive Cluster Bulgaria   BRITISH CHAMBER OF COMMERCE TURKEY 1887   en sad   fizikist   TÜTED   AUTO PARTS

Ministry of Science, Industry and Technology   DAILY SABAH   go social Digital Communication Agency   MODERN INNOVA Virtual Arts   STARTERS HUB   F⁺ VENTURES

ARILOG   UTA Lojistik   Polskie Towarzystwo Logistyczne   PTL   CZECHINVEST   invest in bavaria   TEDAR TEDARİK ZİNCİNİ YÖNETİMİ DERNEĞİ

RUEDIGER EBEL
Alphabet Head of New Markets

What are the main advantages of integrating new age technologies like artificial intelligence, IoT and/or smart security in automotive industry?

Ruediger Ebel: For me, since I am active in the automotive fleet service industry, I see the main advantages in providing better mobility offerings with a lower or let me say a better risk adjusted cost base for our customers. I see here the usage of artificial intelligence that can help our industry to better interpret usage demand and behavior, smart security packages that allow more flexible mobility offerings combined with micro billing functions and IoT that will allow to provide better driver services in the car and before/after traveling.

> **autonomous driving will have the highest change impact on the automotive fleet industry.**

What will be the most surprising development in the next decade in automotive industry?
Ruediger Ebel: Most surprising is difficult to say from today's point of view but I think that autonomous driving will have the highest change impact on the automotive fleet industry. Depending on the speed of realizing it and the grade of autonomy it can deeply change the business model in the fleet service industry

What is the main security and privacy risks associated with the advent of connected vehicles?
Ruediger Ebel: As for privacy risk, I wouldn't say that these are higher as you today use your smartphone intensively for travel purposes. Combined with autonomous driving, it may even add overall more security for travelers.
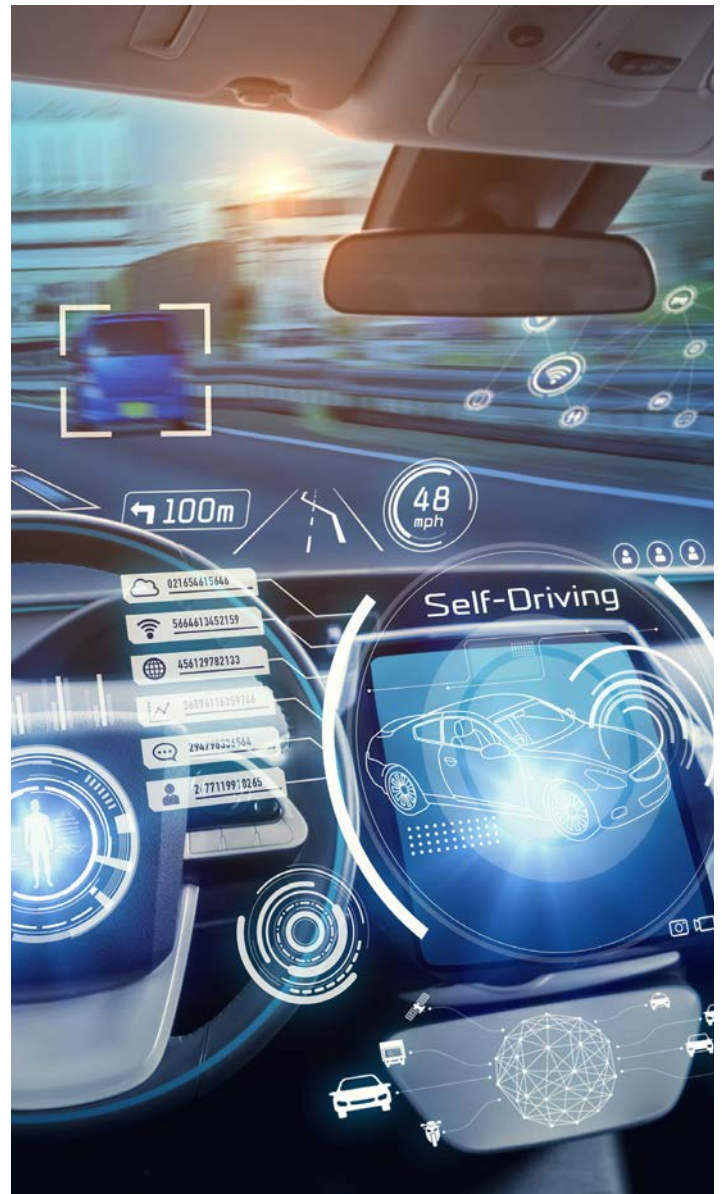
SATOSHI NAGATA
NTT DOCOMO Senior Research Engineer

What will be the most innovative and life changing solution that combines automotive and telecommunications sector in the next few years?

Satoshi Nagata: Connected vehicle itself can bring the innovative and potential life changing solution.

What is the main security and privacy risks associated with the advent of connected vehicles?

Satoshi Nagata: Generally speaking, we should be careful to avoid emotional feelings of these risks, and need to have careful and fruitful contributions at least from technical perspective.

How the extensive use of smart solutions did affected your product and service range?

Satoshi Nagata: Thanks to the connected vehicle and upcoming services related to the vehicles, many sectors/regions will be affected. Telecommunications will be one of those sectors which will have impact by the connected vehicles. From telecommunication sector point of view, we can contribute our regions not only for connected vehicles but also IoT.
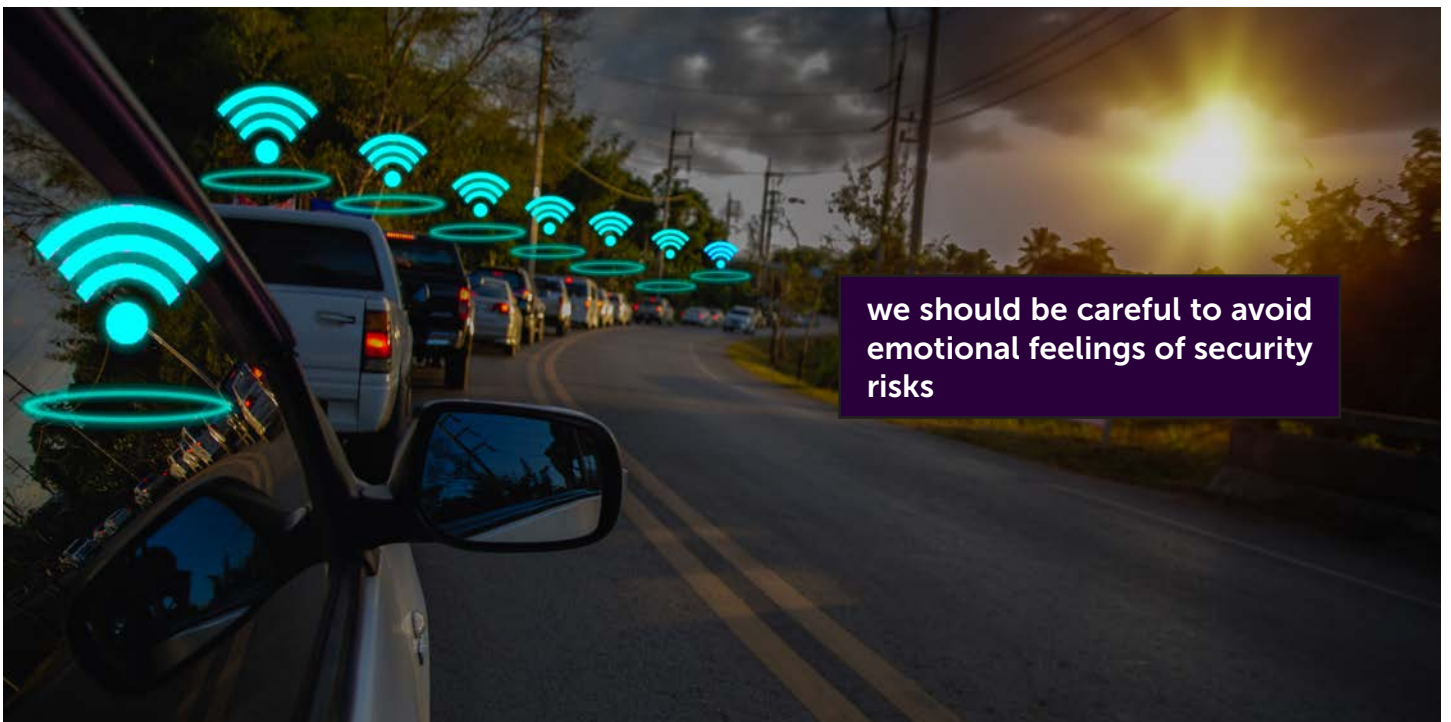
we should be careful to avoid emotional feelings of security risks

ANDY GOLDBY
The Floow Chief Product Officer

What are the main advantages of integrating new age technologies like artificial intelligence, IoT and/or smart security in industry?

Andy Goldby: New technologies, when correctly applied in the automotive industry, can provide novel capabilities to improve mobility for the whole of society. New technologies like AI and IoT have strong potential to not only to improve existing systems but also to make entirely new and beneficial mobility possible.

One early example of applying such technologies is telematics (in which The Floow specialize). This application was an early adopter of new technology and has enabled significant improvements in the way that mobility risk is understood and also now this risk can be influenced and therefore mitigated. The adoption of such technologies by insurers is making insurance more fair, i.e. based on how you drive (rather than less fair postcode and credit score based) whilst also supporting targeted education and safer driving resulting in an overall road risk reduction. These benefits and changes are only possible when embracing the potential of new technologies, for instance in this case, by adopting IoT devices and advanced data analytics. Telematics however is just an early part of the benefits we expect to come from these new technologies which we think will collectively deliver optimized, safer, greener and more socially inclusive transport for everyone.

Another example of applying such AI and Deep Learning technologies to the automotive space is Autonomous cars and although this is less mature than telematics there are many who believe that it is not that far away and will also facilitate another step change in the safety of general mobility.

In practice, of course, technology will always be adopted where it brings an economic or societally beneficial gain so any realized integrations of technology will bring incremental benefits.

> **It is vital however to ensure that safeguards and vigilance is incorporated into any new technology**

What is the main security and privacy risks associated with the advent of connected vehicles?

Andy Goldby: Despite the wide benefits connectivity can bring, public perception still includes perceived risks that could emerge from connected vehicles. The truth is most new vehicles already have many connected capabilities such as automated crash alerts and controlled over the air firmware updates. These additions, when carefully introduced, seek to reduce risks and cope better with emerging risks than traditional vehicle being unable to adapt and the only course of action being expensive recalls. Although some risks are potentially real by increasing connectivity, the mitigations and safety benefits they bring alongside, each technology adoption are designed to mitigate these plus value added services and benefits connectivity bring far outweigh the small risks these technologies have the potential to bring in the shorter term. It is vital however to ensure that safeguards and vigilance is incorporated into any new technology to ensure each remains societally beneficial.

> **the smart solution that I would like to see adopted would be the ability to integrate all current forms of mobility**

What will the most surprising use of smart solutions in traffic be in the next couple of years?

Andy Goldby: I am not sure what the most surprising use will be as if we could foresee this, then it would not be surprising! However, the smart solution that I would like to see adopted would be the ability to integrate all current forms of mobility (public transport, taxis, ride sharing, car sharing, bike sharing, walking etc.) all into a single mobility application powered by telematics so that the public can choose the most efficient / safest / most economic / fastest route from A to B including mobility sharing with likeminded individuals that can help reduce congestion and as a result make mobility safer and smarter for everyone.
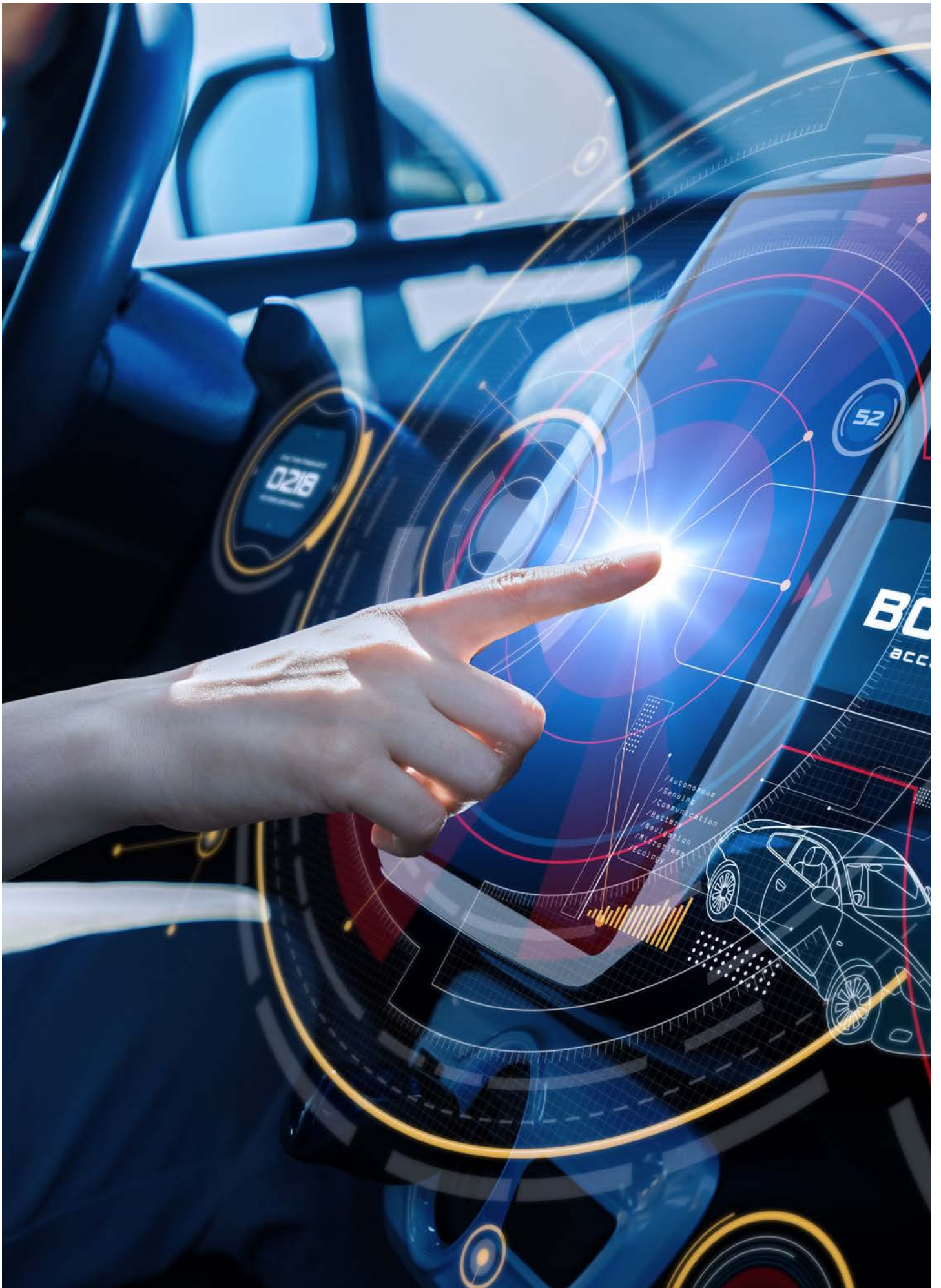
CHRISTY ROMAN
Founder of Women in Automotive

How do online marketing campaigns evolve with the increased competition in automotive industry and differentiated customer needs and expectations?

Christy Roman: One of the greatest things about online marketing is the ability to target much better than other media – but one of the other things about it is the fraud and smoke and mirrors aspect that is inherent in digital marketing. Finding a happy medium is key. I advocate Search Engine Marketing along with great advertising content on the dealership web site as a primary place to spend dollars dominating your brand. Your web site should be the primary ad for your business - anyone who visits should know "why" they should buy from you. From there, geo-fencing and targeting your own database with video pre-roll ads and inventory retargeting (serving inventory ads of vehicles that you have visited on a dealer or third party web site). YouTube TruView and Pre–roll video advertising which can help create frequency in specific areas is also effective. For used cars, online classified companies like AutoTrader.com are focused on the inventory you have, rather than the dealership brand and is very critical to that revenue area. Getting more leads off your own web site traffic is also a very important aspect of digital marketing – being able to track leads and conversions coming off your own traffic is a great way to measure various digital marketing efforts (if you don't get more engagement/leads with increased traffic, chances are you're not going to get much for your money.

> **the key is to have a strategy going into what you are trying to sell across all your revenue centers**

General banner advertising online, while inexpensive, is the least effective form of digital marketing in my mind. Automotive is a category that has many targeted digital aspects – the key is to have a strategy going into what you are trying to sell across all your revenue centers and then to find the most targeted ways to get those messages across.

> **the ability to target individuals one-to-one with targeted messaging is a tremendous advancement in technology**

How do you see the development of new tools in mobile and other digital technologies will affect the way people perceive ads and react to them?

Christy Roman: The ability to follow people as they go through the Internet and to target them specifically while they looked at on your web site is a newer use of data. It is a balancing act to put ads in front of people who do not know you and know exactly what they looked at on your web site (and others as well). Thus far, there are a number of companies providing advertising solutions around this, and the consumer doesn't know how they are being targeted. In one sense, this is a brilliant opportunity to deliver a tremendously relevant ad. On the other hand, as privacy issues continue to be in the forefront, it will be interesting to see if people will react negatively to knowing that's how they are being targeted. Right now, it's not that obvious.

To me, the ability to target individuals one-to-one with targeted messaging is a tremendous advancement in technology and should lead to greater sales conversions. But the privacy issue looms large in my view.

FRANCESCO ALFIERI
Industry 4.0 Specialist

What are the main advantages of integrating new age technologies like artificial intelligence, IoT and/or smart security in automotive industry?

Francesco Alfieri: The advantage of applying new technologies such as artificial intelligence and IoT is greater efficiency in production systems. This allows us to plan production more precisely, reduce waste and thus have a greater focus on the environment. All this with a significant reduction of the time to market and to actually implement mass customization, that is, to be able to respond quickly to the desire to personalize an increasingly demanding customer.

What are the main security and privacy risks associated with the advent of connected vehicles?

Francesco Alfieri: Security technologies are becoming increasingly effective. Today we have greatly reduced the risks and we will be able to make even less numerous accidents with even more advanced systems of navigation, control and vision. On the other hand, the issue of privacy is more complex and I think it must be tackled keeping in mind the country of reference. In this sense, I would like to see greater uniformity at a legislative level also to simplify the work of companies in the automotive sector

> **we have greatly reduced the risks and we will be able to make even less numerous accidents**

Can you elaborate on how robotics increase efficiency and its contribution on the future of automotive industry?

Francesco Alfieri: Robotics with its entry into the automotive industry a few decades ago has revolutionized the way of producing vehicles. Today we are facing another revolution in which the new robotics, collaborative robotics, is introducing a new production model where man and machine work together and cooperate. This model makes it possible to maximize the efficiency of robots and the creative intelligence of human beings. This is what we are aiming for. Men and Robots together to develop augmented intelligence, a new cognitive approach to production

> **the new robotics, collaborative robotics, is introducing a new production model where man and machine work together and cooperate**

What is expecting us in automotive industry in the next decade in terms of transforming the way you do business with new technologies?

Francesco Alfieri: As far as production is concerned, concepts like Machine learning, Artificial and Augmented Intelligence, Predictive Maintenance and Big Data will increasingly enter the new production model of Factory 4.0 and make factories flexible and efficient. As for the market, we will have more and more demand for vehicle technology both to make driving easier and safer and to be continuously connected to the virtual world. The development trajectories go towards the connected and autonomous vehicles.
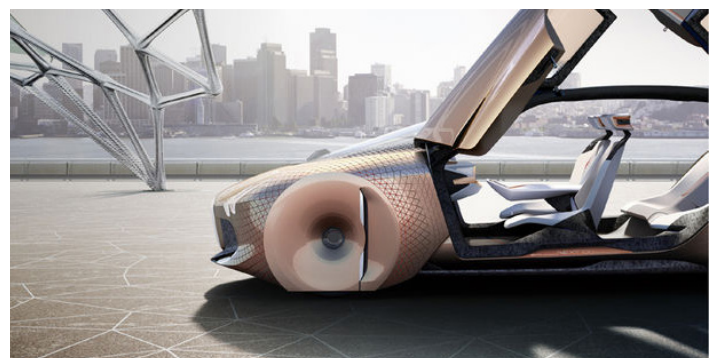
GURVINDER AHLUWALIA
Digital Twin Labs Founder & CEO

How do you create new strategies for products and new business models motivated by Blockchain and decentralized networks?

Gurvinder Ahluwalia: Blockchain or broadly speaking decentralized systems are usually three systems: the protocol system, the application system, and an economic system. Given this, there are two approaches to new products and business models: new differentiation through optimization and the other is launching token-based marketplaces. The first is really an optimization play. For example, using blockchain for single and trusted source of data among parties in a private network; optimizing existing supply chains. The second approach with crypto token provides mechanism never before used to align incentives in a marketplace and their use for investment, ownership, or utility. For example, looking at the supply chain as a supply marketplace with participant's incentives aligned and transactions propelled using crypto tokens.

> **decentralized systems are usually three systems: the protocol system, the application system, and an economic system**

How would you describe the change that crypto-assets and digital tokens of value will create over the way financial industry make business?

Gurvinder Ahluwalia: Through three ways: one, Transaction Costs; two, Granularity of Transaction; three, Autonomous Behavior. With regards to transaction costs, decentralized systems by design provide peer-to-peer interaction without overhead of current centralized financial entities. With regards to granularity, micro-transactions requiring very small exchange of value cannot thrive with current sledgehammer of financial instruments and mechanisms. The delay and cost of the transactions in current methods won't justify the value of whole new

categories of transactions needed and being born. For examples, node to node interactions. Finally, with regards to autonomous, participations and devices cannot reach autonomous economics with current financial industry and mechanisms. For example, autonomous vehicles are not just about autonomous driving but also about self-sustaining entities and autonomous economics.

> **autonomous vehicles are not just about autonomous driving but also about self-sustaining entities and autonomous economics.**

What is the main security and privacy risks associated with the global supply networks of physical goods in multiple sectors on Blockchain and application of decentralized technology for next generation IoT architecture?

Gurvinder Ahluwalia: One problem is that by definition, IoT is at the edges, it is massively pervasive like nothing else in computing history of the planet has seen, and hence it is exposed. Second problem is that blockchain-based provenance for any industry and use case like supply networks and logistics will be only as good as its weakest link. The integration of physical with digital systems still remains a gap that we are working to close. The third problems is that most business models around IoT create vendor and device-centric siloes, are invasive of privacy, and don't serve open, inter-device coordination across heterogeneous manufacturers and providers. None of these problems are solved without considering a new protocol, new incentive alignments, and new structure based on decentralized systems provides. This is the space startup ventures, like Beyond Protocol in Silicon Valley, are innovating rapidly.

> **The integration of physical with digital systems still remains a gap that we are working to close**

ÖZGÜR ÇETINOĞLU
TOFAŞ CIO

What are the main advantages of integrating new age technologies like artificial intelligence, IoT and/or smart security in automotive industry?

Özgür Çetinoğlu: Productivity, quality and safety are the main three goals in automotive industry. The new age technologies lead us to realize many projects easily and quickly to improve these areas as never before. On the other hand they also allow us to create new values about customer and employee satisfaction. The new values especially in customer will enable the companies survive in the future which we call it as "digital age".

> **The new values especially in customer will enable the companies survive in the future which we call it as "digital age**

What is the main security and privacy risks associated with the advent of connected vehicles?

Özgür Çetinoğlu: Risk1: Theft of personal information (getting info directly from car)
By uploading firmware over the air hackers can take control of the car. Then they can get personal information from the car. For example, GPS information could be used to track a driver's personal habits and schedule. The information could be used to plan a burglary when a driver is away from home.

> **The information could be used to plan a burglary when a driver is away from home.**

Risk2: Theft of personal information (getting indirectly using connected car app/man in the middle attack)
OnStar example, using man-in-the-middle attack by intercepting the traffic between OnStar RemoteLink Connected Car App and OnStar Servers. The hacker accessed the user's name, email, home address, and last four digits of a credit card and expiration date, all of which are accessible through an OnStar account. With that info hacker can also unlock doors, start the engine.

Risk3: Risks of IOT also apply to connected vehicles
Each car will interact with vehicles in its proximity environment to have a more predictive source of information that will add to the information collected by its own dozens of sensors. So, every risk related to IOT will also apply to connected vehicles.

Risk4: Taking control of the car because of vulnerable code and control units (lack of security controls in supply chain)
For connected car projects there are hundreds of independent vendors supplying hardware and software components. That makes it harder to track code to see if it is vulnerable or not. There may be also backdoors. Supply chain management is a key, different components from different vendors and countries has a potential risk of having backdoors and vulnerabilities. Also vulnerability patching process must be even considered in details. As Tofaş, we are aware of all of these vulnerabilities. Our product is very safe against all of these attacks.

What is expecting us in automotive industry in the next decade in terms of transforming the way you do business with new age technologies?

Özgür Çetinoğlu: Since the companies in automotive industry have to be more competitive, they have to add technological features into their main products -the car and spare parts, as well as they must improve their business processes by including technological solutions. To be able to support this transformation, the companies should rapidly change the human resources and project management approach from a traditional way to a smart, adoptable, ambidextrous and agile methodologies. As a certain result of this necessity, technology oriented departments like R&D, IT and Production Technologies and

the companies should rapidly change the human resources and project management approach from a traditional way to a smart, adoptable, ambidextrous and agile methodologies.

competencies will be getting more important. These kind of technology-enabler departments must inspire the entire company and must be more collaborative to create value in expected time. On the other hand, top-management and HR departments should put serious effort into place to convert the perception of automotive companies from a manufacturing center to a technological leadership center in order to raise the reputation of the companies and to increase the preferability by genius brains. In addition, it will be a must to support both inner and external entrepreneurship and innovation for some specific technologic areas.

it will be a must to support both inner and external entrepreneurship and innovation for some specific technologic areas.

Furthermore, technology will the key player for transforming all business services and products to a way that both employees and customers expect. For example, new technologies such as Digital Twins, Visualization of Manufacturing (AR/VR, wearables), IoT systems will increase the productivity and traceability whereas new methodologies like Agile Project Management will decrease the project costs and failures while increasing the flexibility and engagement of the projects. As a consequence of dramatic changes in customer behaviors, they will create new marketing, sales and support solutions like Digital Marketing, Geomarketing, Bots, Social Media so that they must save the most valuable things of customers: Time and Prestige. They must integrate embedded solutions into the car to feel customers safer and more valuable by including AI solutions such as early braking, advanced detection and prediction technologies, recommending point of interests; thus they will prove to care another valuable thing: Safety & Personality. And the community: Automotive companies have already got their huge ecosystems such as suppliers, dealers, stakeholders, etc. So, to be able to keep them in the play, they must ensure the transparency and collaboration with them by using new technologies such as blockchain, cloud. In summary, the era, habits and priorities are changing very rapidly, and the war in the market is getting hotter and hotter. To be able to remain in the playground, the companies should spread the technology usage in their every business aspects.

the era, habits and priorities are changing very rapidly, and the war in the market is getting hotter and hotter.

World Automotive Conference

KANDAN ÖZGÜR GÖK
Universal Robots Turkey & MEA Sales
Development Manager

How did the advent of new tools like IoT and/or the use of robotics evolved production technology in automotive sector? Can you elaborate on how robotics increase efficiency in production and its contribution on the future of automotive industry?

Kandan Özgür Gök: Universal Robots is a Collaborative robots 'Cobots' inventor and Cobots are running more than 50 countries with different industries including automotive and variety of many applications. Universal robots has reached 25.000 cobots milestone by providing these key factors indicated below.

The most important advents are Safe & Collaborative use, easy programming, flexibility, fast set-up, fast payback, UR+ and UR Academy platform.

Safe&Collaborative use;
Unobstructed collaboration for greater productivity. Our cobots are able to take over strenuous tasks in dangerous or dull environments. With our safety features, you can fuse the best of human ingenuity with robot competency for accelerated productivity and growth.

Easy programming;
Our patented and intuitive 3D-interface allows anyone within the production facility to become a robot programmer even without prior experience. A user friendly and intuitive teach pendant allow operators to program a cobot by moving its arms to the desired waypoints, or simply using drag-and-drop functions on a touchscreen tablet.

Fast Set-Up;
Reduce robot deployment time from weeks to hours with Universal Robots. Our cobots do not require special electrical installations and can be connected to any regular power outlet. An intuitive user interface enables easy set-up, installation and integration into your production line.

Fast Payback;
Universal Robots bring all the advantages of advanced robotic automation and collaborative robots to our

customers without any of the traditional added costs associated with robot programming, set-up and safety guarding.

Flexibilty;
Our cobots are lightweight, space saving and easy to re-deploy to multiple applications without changing production layouts. Example; UR10e robots weight is just 29 kg while its payload capacity is 10 kg. And can be mounted at any position.

The e-Series' versatility is supported by the Universal Robots+ ecosystem, which offers a range of end-effectors and softwares to meet every configuration and application need.

UR+ Platform;
Universal Robots+ is a global developer program providing the tools to customize products to Universal Robots and commercialize these through the Universal Robots+ showroom with the "Certified for Universal Robots" stamp. With these developed products, you can get Plug&Play and Produce! Concept. You can find ready of use end effectors, accessories and software this online showroom and make your duty easier. You can reach more than 100 certifed products.

UR Academy;
Available 24/7 and in 7 languages, Universal Robots Academy is our free online training program designed to help any cobot user pick up essential skills to program and operate a Universal Robots cobot without further assistance.

On top of 6 basic modules that cover skills like creating programs and configuring end-effectors, Universal Robots Academy also offers 3 more complex modules for users who are keen on advanced collaborative robot programming. All modules utilize hands-on experience, and interactive robot animations to make learning easier and more effective for users.

> **Our cobots are able to take over strenuous tasks in dangerous or dull environments.**

From laser-cutting rigs to engine foundries, automate almost any stage in your automotive production line with the highly versatile Cobots. Our cobots can be seamlessly integrated into existing production lines to take over critical and precision tasks while maintaining production quality.

What is expecting us in automotive industry in the next decade in terms of transforming the way you do business?

Kandan Özgür Gök: More flexibility, more Human&Machine interaction and easy of change production lines one product to another via fast, ergonomic and low investment solution with human factor as main driver with advanced robotics technologies as Collaborative Robots and IoT systems.

World Automotive Conference
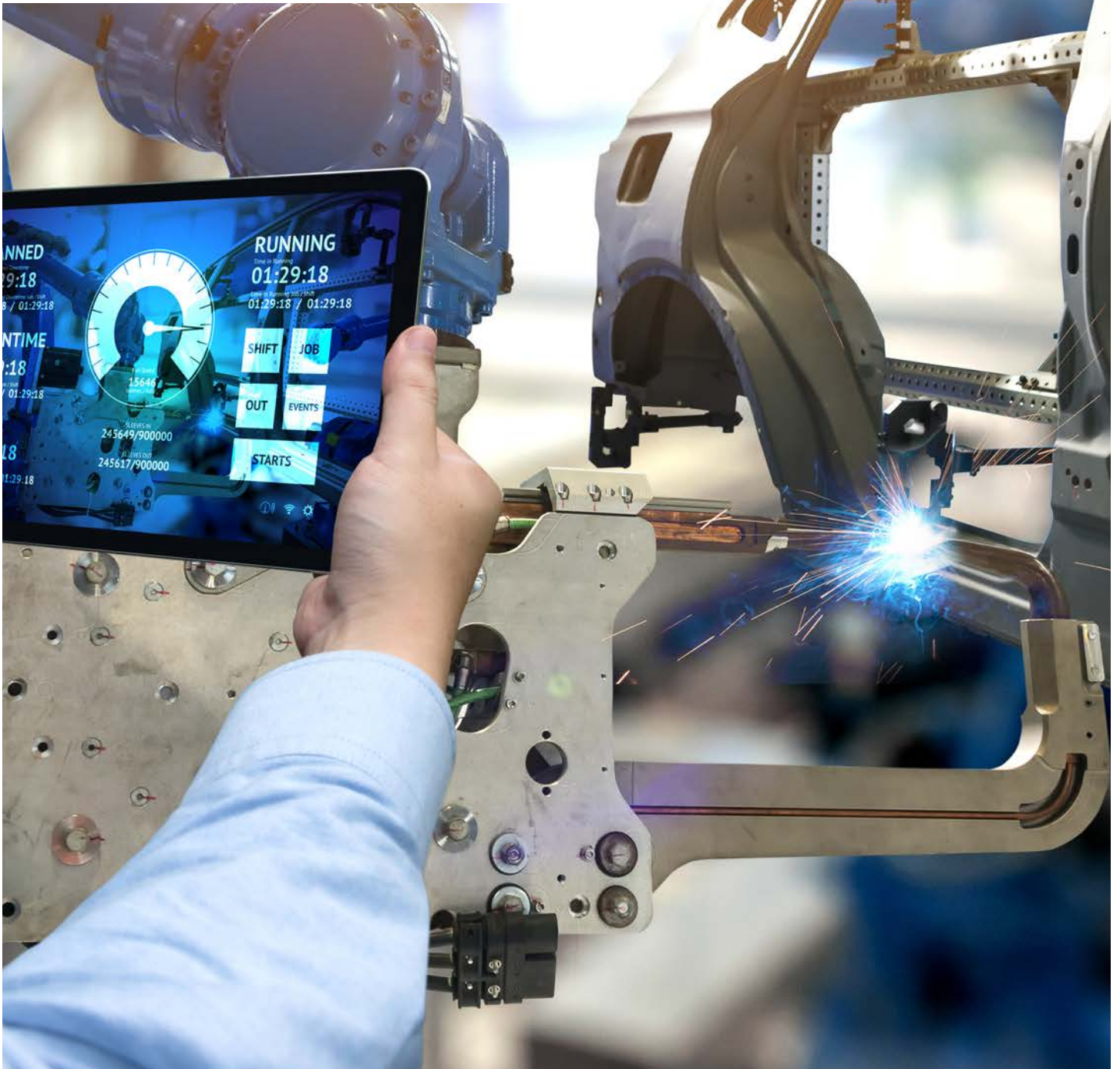
LYBOMIR STANISLAVOV
Automotive Cluster Bulgaria CEO &
Member of Board

Connected cars and cyber security are two areas in which Bulgaria is rightly considered an advanced country

What are the main advantages of integrating new age technologies like artificial intelligence, IoT and/or smart security in automotive industry?

Lybomir Stanislavov: Artificial Intelligence (IO), Internet of Things (IoT) and smart security are at the heart of Industry 4.0. They will allow the automotive industry to work more efficiently, to bring in production new technologies and solutions much faster and create customized products to meet customer needs.

AI and IoT are at the core of the autonomous mobility that will change the cars and the way we perceive and use them in the future. The artificial intelligence platforms can make life easier for drivers in so many ways: the AI functionalities can locate points of interest such as gas/charging stations and enable the driver to pay for fuel/energy from inside the vehicle, to automatically pre-order services for the car or book a certain restaurant/hotel, based on those typically visited by the driver.

Bulgaria has a very strong IT industry. That represents a chance for a rapid development of the technological solutions in the automotive sector, in which the IT industry is becoming an increasingly important and irreplaceable part.

Integrity is the key in the industry efforts against cybercrime

What are the main security and privacy risks associated with the advent of connected vehicles?

Lybomir Stanislavov: Connected cars and cyber security are two areas in which Bulgaria is rightly considered an advanced country. We believe that with the rapid development of these technologies Sofia will become one of the main brain centers for research and maintenance of cyber security. Risks will always exist, but with security technologies, they can be avoided or minimized.

The connectivity is undoubtedly beneficial both for automotive industry and the consumers. Thanks to new tech, such as vehicle-to-vehicle and vehicle-to-infrastructure technologies, the consumers will no longer have to worry about traffic jams or finding parking spaces. Integrity is the key in the industry efforts against cybercrime. Joint efforts will be needed by all manufacturers, suppliers and car users to keep the industry a step in front of the hackers and to keep the connected vehicles tools for safer life.

By reducing the chance of crash, many passive safety systems will become unnecessary

What is expecting us in automotive industry in the next decade in terms of transforming the way you do business with new technologies?

Lybomir Stanislavov: Most experts agree that the internal combustion engine will disappear for most applications over the next decade or two. The process of course will be gradual, but it will seriously affect the business. Mobility will continue to be dominated by personal vehicles, but the pace of adoption of various car-sharing platforms will raise the risks for the automotive industry to lose its consumers. Increasing volumes of data and sophistication of connectivity across the value chain will impact the entire industry.

The past decade have witnessed the auto industry gaining significantly from the globalization. Autonomous cars will represent the most significant change in the way we have used cars over the last hundred years. The new technologies will also affect the semi-autonomous vehicles - scanning the environment, intelligent roads and infrastructure will help to seriously reduce road casualties. By reducing the chance of crash, many passive safety systems will become unnecessary. This will reduce the weight of the cars, which in turn will allow a greater mileage per unit of energy.

At the same time, however the economic uncertainty and political instability will result in a global market where it's harder than ever to plan a decade ahead. But the future will be smart, connected and better for sure.

the future will be smart, connected and better for sure.