

Climbing up the autonomous driving ladder in China's automotive market

Until recently, autonomous driving seemed like a distant reality in the mobility, logistics and transportation sector. But with tomorrow's technology influencing today's society, more players in the automotive industry are forging paths to higher levels of automation and connectivity. A group seeing this huge market potential is the **Israel Chamber of Commerce in China (IsCham)**, who are joining as a pavilion at Automechanika Shanghai 2021 again. Their mission is to promote technologies coming out of Israel to the Chinese market.

Messe Frankfurt got the chance to sit down with three start ups from the pavilion to find out more about their autonomous driving technologies and ventures in China's automotive industry.



Interview with: **Mr Yoram Berholz, Vice President of Sale, Cognata**

A sophisticated virtual simulation platform for tier one and OEMs to test, develop and verify the functionality of their autonomous driving, AI and ADAS systems.

“Advancing autonomous driving inside the Cognata simulation platform”

Can you explain the roadblocks that industry leaders face in the autonomous driving sector? How does Cognata support its partners?

One of the main challenges that tier one OEMs are facing is the develop-to-market lifecycle of vehicles with various levels of autonomy. Cognata’s aim is to help companies reduce both the time and cost of this process through virtual engineering. Our main outputs are the simulations and synthetic data sets. The software renders scenarios and images that help autonomous vehicle developers train their perception algorithms identifying potential hazards, pedestrians and other cars on the road. The step up in technology is quite dramatic for vehicles with any sort of level three autonomy and above. Because of this, we actively engage

with regulators to ensure that all the industry standards and parameters in our simulation library comply with the necessary road safety legislation.

In terms of demand for your products, what are you noticing in China? How does this affect your business strategy?

As one of the largest automotive markets in the world, our entry into the Chinese automotive industry has been very strategic as the nation’s technological development of AI in vehicles is on par with other leading countries and regions. On top of this, China is a honeypot of 160 OEMs, which, of course, is our main customer stream. We have noticed that these players are very agile in terms of car development in other aspects like electric vehicles too. With this expansion into China’s automotive market, we have localised our communication channels to make the company more accessible to domestic players, as well as opened a Chinese subsidiary and fully translated our website and platform to Chinese.

What type of customers are you looking to attract at Automechanika Shanghai 2021?

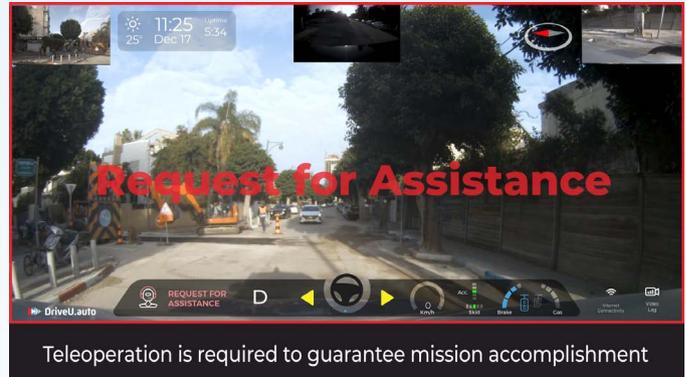
In the last few year, I have definitely seen a shift in the show’s position to reflect rising trends and the industry’s future direction. We hope to meet all the OEMs and tier one companies during the event to support our expansion and visibility in various vertical markets across China including the automotive, agriculture, construction industries and more.



Contact Ella Shlosberg at ella@cognata.com for more information.

Interview with: **Mr Alon Podhurst, Chief Executive Officer, DriveU.auto**

- A software-based connectivity platform for high speed and low latency autonomous vehicle teleoperations.
- Enables both remote driving and high-level commands, critical to the rapid and safe deployment of autonomous vehicles.
- Aims to advance autonomy under multiple use cases like roads, logistics, warehouses and more.



“The three pillars to full autonomy are technology, a viable use case and regulation ”

What type of infrastructure is needed to support your innovation?

The autonomous vehicle market is progressing quite rapidly although, there is still work to be done for large-scale deployment. To break this down, I believe there should be three interdependent pillars.

Firstly, the combination of **core and enabling autonomous vehicle technologies**, like our software, will make this a reality. What essentially is required is replacing instinctive human decision making with an AI-based computer. But, how do you make the AI in an autonomous vehicle competent enough to handle anything it meets on the road; the existing technology can already address road safety, however, it is commonly accepted by experts that there will be occasions

requiring disengagement or human supervision. DriveU.auto can enable this connectivity between the vehicle and a remote operator through teleoperations at high speeds and quality. The software transmits a continuous stream of data from the on-board cameras and sensors to a remote person where they can see through the eyes of the vehicle to help achieve the mission at hand.

The next leg is a **viable use case**. For example, robotaxis, autonomous trucks on dedicated routes and delivery robots in geo-fenced areas are all gaining market traction. When examining a business case, there are so many stakeholders in the automotive ecosystem that are actively contributing to thought leadership, investment and infrastructure for testing and deploying autonomous vehicles over multiple use cases. And so the fact that you can now step into a level five autonomous vehicle in Shenzhen and Shanghai, in addition to a few other global hotspots, is why we are keen to position our platform in the Chinese market.

Finally, this leads us to the **regulations** that need to be in place to govern the deployment of autonomous vehicles. I do not see these legal frameworks as roadblocks – pun intended – rather building blocks towards creating an environment safe for driverless vehicles to operate in tandem with human drivers for decades to come. I think what we are actually witnessing is an accelerated rate of regulation with different parties playing their role in progressing large-scale commercialisation.



Contact Ruth Zamir at ruth@g2mteam.com for more information.

Bright Way Vision



Interview with: **Mr Moshe Danziger, Product Manager, Bright Way Vision**

- The recent focus of many startups and car manufacturers was to reach level four autonomy in geo-fenced areas, in good weather and during the daytime.
- Moving forward, autonomous driving at night and in adverse weather will become essential for business continuity but at the moment, current technologies lack visibility in these conditions. Therefore, the industry could introduce a few stages within level four: from daytime to clear weather driving at night, and then harsh weather driving at night.
- Bright Way Vision's automotive camera system, based on patented GatedVision technology, can accommodate this need with full visual acuity in darkness and adverse weather conditions.

“China is a source of innovation and can quickly adopt new technologies”

Can you please tell us more about your company's mission and its products in the automotive industry?

Bright Way Vision's mission is to enable the current ADAS and AV functionalities in the industry to move to the next level of autonomous vehicles. Our GatedVision camera, currently in serial production, is a market-ready sensor enabling a commercial and economic sensor suite with just two types of cameras; the existing visible-light camera and the GatedVision camera. This sensor suite can outperform all other combinations in virtually every way, which, accordingly, ensures higher safety and day-to-day business continuity in any weather and lighting conditions.

In terms of demand for your products, what are you noticing in China? How does this affect your business strategy?

We see great potential in China's autonomous vehicle market. Highly influential decision-makers and industry leaders in the country play a key role in driving innovation and embracing emerging technologies quickly. Many consider China a pioneer, not only in the automotive industry but also in rail transportation and autonomous transportation. In light of this, the nation could be one of the first to widely implement full autonomous driving. Therefore, we believe it is important to leverage the show's activities to find out what the market needs are so that we can understand how to adapt and build upon our product lines to cater for these broader industries.



Chinese Government targets **20%** Level 4 market penetration by 2030¹

Source: 1. IHS Markit: future outlook of the Chinese autonomous driving market and future mobility, August 2021, <https://qr.messefrankfurt.com/e8ZD>, (Retrieved: September 2021)



RGB camera



GatedVision camera

Contact Dixon Feng at dixon.feng@bw-vision.com for more information.

Want to know more about these startups and other innovative companies?

Visit the Israel Pavilion from 24 to 27 November 2021 in the North Hall of the National Exhibition and Convention Center, Shanghai.



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exhibitor now!

Benefits of joining a pavilion:

Differentiation – The dedicated areas and special booth design makes your company stand out

Experience – The pavilion organiser creates a seamless service journey for the exhibitor with more opportunities for networking and promotion

Identity – A consortium of like-minded companies can strongly mirror your firm's influential position and reputation within the industry

“ Automechanika Shanghai presents a stage for IsCham's automotive companies as they can showcase their technologies to some of the biggest brands and OEMs in the market. Our companies can make a valuable contribution to this market as the implementation of these systems require high levels of due diligence. ”

Dr. Iris Kastoriano, DBA, General Manager,
Israeli Chamber of Commerce in China



Enquiries

Messe Frankfurt (HK) Ltd

Tel: +852 2802 7728

auto@hongkong.messefrankfurt.com

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