

Alexander Kraus

Chairman of the board, **International Alliance for Mobility Testing and Standardization (IAMTS)**



➤ Alongside his role as CTO at TÜV Süd, Alexander Kraus heads up the IAMTS, a non-profit alliance with a voluntary member base of automotive professionals, including testbed

operators, tech companies, universities and regulatory bodies, and the first OEM, Audi. Founded in 2017, the group's objective is to smooth the path to Levels 3, 4 and 5 automation by neutralizing testing.

How was the organization founded?

➤ We wanted to support the path of technology development in the global markets. We saw the heavy investments that were needed in this technology development without getting into a real business case. There is only a business case once the technology developer can scale the technology onto the market. That's a dilemma.

Heavy investment was needed in technology from a vehicle perspective and testing infrastructure for development and validation of those vehicles, and nobody really knew what the right testbed was. That meant that those vehicles were perhaps ready to go in defined use cases, but there was no way to validate safety because testbeds were not defined, test methods were not defined and last but not least, standards and regulations were not ready at that time.

What has been the organization's biggest achievement so far?

➤ Getting all the global membership together on a voluntary basis and contributing regularly to content development. We have created four working groups and one study group. So far we've had about 25 publications and we have started a program under SAE in the US. We have also founded a non-profit entity in Vienna, which is membership based, and everything that's created is owned by the IAMTS.

What is one of the toughest challenges that must be overcome in AV testing?

➤ All the OEMs have [test] scenarios in the virtual world, but they are keeping those scenarios in their silos and will not share them.

That results in a patchwork of scenarios that reflect whatever that company is doing. If you want to release a vehicle to the global market you need to have access to all those different geographical scenarios and you need to know which ones are critical. That's one of our targets – making those scenarios available from a neutral perspective.

If you look at a traffic situation in Shanghai, China, the traffic mix is different, traffic lights are different, road markings are different and people behave differently from in New York and Munich, for example. One of the OEMs plans to release Level 4 AVs by 2026 in China and Germany and they have struggled. The technology works on a testbed in simulation, but when they took it to a city, it didn't work. It stopped after 50m because it could not deal with the surroundings. They needed to know what to put into their development [program] to make it work.

How does the IAMTS aim to tackle the automotive community's traditionally closed-off mentality?

➤ It's a cultural thing. They see the availability of those scenarios as one of their core competitive advantages, theoretically. But it's not, it's a self-limiting system. From a business perspective, we

need to make the first step and not the second or third step. We need to identify the scenarios and how they're described. Then we can start collecting scenarios, neutralize them and make them accessible for everyone.

The IAMTS has a global membership base. Have there been any disagreements?

➤ Having a global, voluntary collaboration requires strong leadership and motivation of people individually. But the trickier thing is [managing] intercultural differences which are underneath the surface. For example, in meetings we have had incidents of certain folk talking all the time and the Chinese not saying anything because they are too polite. That has even resulted in us losing key members because they felt left behind and not listened to. As a solution, I asked one of my colleagues at TÜV Süd who is from China to get involved with the IAMTS as he understands the Chinese culture. He has been able to prepare the Chinese input before every meeting, which we make sure everyone reads in advance.

We are now focusing on internationalization as our member base is still quite European. We want to get more members in China and the US and expand to Korea and Japan because we need to balance between the technology markets to ensure we are neutral. ◀

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