

MERIDIAN Deliverable 1.7 – “D1.07 – Onsite visit DE - Report”

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Abstract

The Autobahn has introduced its "Truck Parking - ITP Info to NAP" project to MERIDIAN partners. This activity involves equipping parking spaces with radar detection and forwarding information on available free parking spaces to the German NAP (Mobilithek). This step is seen as necessary in Germany in order to better brand existing parking spaces for better use. Newly built parking spaces should be equipped with detectors during construction. As part of the funding in MERIDIAN, in addition to the equipment, the provision of data in the NAP and in the Autobahn app is also being funded. Further, The Autobahn has the right to provide information on free parking spaces using appropriate interactive signage on the access roads to the rest areas.

The technology that is used to detect free parking spaces was presented by the Autobahn together with the equipment partner Telartec during this on-site visit.

To allow the highest attendance possible of experts from the MERIDIAN partners, it was decided to convert the physical on-site appointment into an interactive online appointment lasting 2.5 hours, which took place on June 17th, 2024.

This should further serve as a kick-off so that the partners can later get to know the technology on site in bilateral visits.

D1.07 – Onsite visit DE – Report

Our MERIDIAN partners and collaborators from related coordination projects delved into the fascinating world of truck parking lot restructuring. They explored cutting-edge solutions for equipping these areas with advanced parking space detection technology. Although not the only provider of truck parking services, on this on-site visit, the experts from TelarTec shared real-world examples from their extensive experience in transforming German truck parking lots.



The event started with some welcoming works of the host Björn Siebert from the Autobahn. During the introduction round, each participant was asked to answer the following questions:

- Who am I and what is my position?
- Why do I see the topic as important for my employer?
- What do I expect from participating?

These questions formed a good basis to define the direction of the event and provide added value to the participants. Following those introductions, TelarTec’s CEO and COO were introduced. The company has been awarded by the Autobahn to equip main parking lots with its detection system, making it a leading player in parking lot restructuring for higher utilisation. Mr. Mauer and Mr. Decker welcomed all participants from their side and started with the presentation. The technology company TelarTec is specialized in the development and distribution of 3D laser-based systems (Figure 1 & 2). These systems are designed for high precision detection of objects in outdoor areas of any form and size, under any light and weather conditions. They are used for increasing security and efficiency in infrastructure (street & rail), logistics, and general security. The company’s vision is to digitise infrastructure and logistics, increase the capacity and utilisation rate of infrastructure, and make it cheaper, safer, and reduce CO₂ emissions. They aim to increase the efficiency of logistical processes, hence reducing cost and increasing throughput. TelarTec’s product, AreaDetection, is a 3D laser scanner system that captures and detects any object with high precision in 360° mode, covering an area with

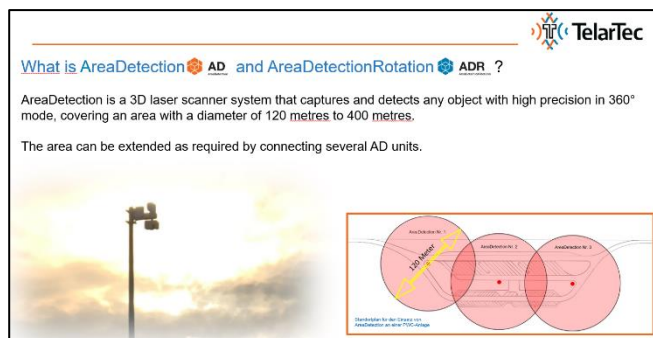


Figure 1

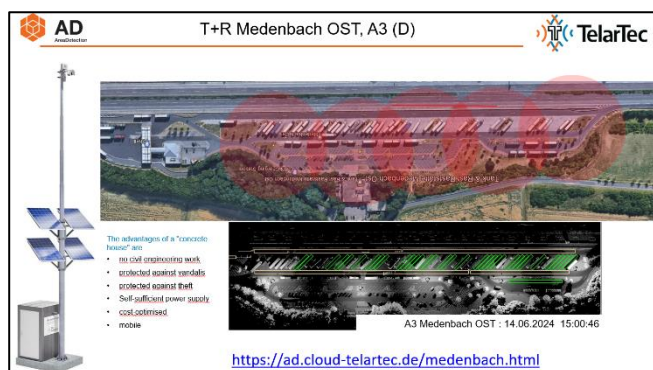


Figure 2

a diameter of 120 meters to 400 meters. The area can be extended as required by connecting several AD units. It is reliable in all weather conditions, suitable for continuous use (24/7), fully compliant with data protection regulations, and replaces the use of surveillance cameras. The presentation also included examples of the application of AreaDetection in a parking information system.

After the first round of questions, it was time for the interactive session. All participants were asked in advance to submit examples of truck parking that are of interest to them/their employer. TelarTec used some of these examples to explain what detection could look like and how the parking lot could be restructured to increase the number of parking spaces while maintaining the same area. One standout case study was the redesign of an Italian parking lot (Figure 3, Brenner), which was demonstrated virtually. The impact of even minor restructuring was astonishing - the increase in available parking spaces was immense (Figure 4).

The Port of Ravenna explained the problem of trucks blocking the gates to the container terminal (Figure 5). Here, TelarTec offered help, not only in restructuring the parking spaces in front of the gates, but also in how the port could benefit from the information collected by the detection system, as it can be integrated with the port's system and app, so that trucks could be assigned a time and lane before entering the port premises, which would help direct traffic towards the port accordingly. Trucks could park around the perimeter of the port and would only enter the appropriate lane of the port parking lot in front of the gate as the time slot approaches.

TelarTec announces that they will soon equip a German port. As soon as this partnership is officially announced, they will inform the MERIDIAN partners about it and offer to organise visits or webinars for the ports. At the same time, they are open to any other partners who would like to contact them about their system. The Autobahn offered to receive the experts in Frankfurt if they would like to see the system in operation.

Overall, this online event can be called a success and will definitely be the start of further knowledge sharing and knowledge building. All participants agreed that restructuring the parking lots will help increase the number of parking spaces. And if a parking space detection system is also built in this context, the data collected by this detection system can be integrated into an accessible online platform and create tangible added value for truck drivers, operators, hauliers, and logistic companies.

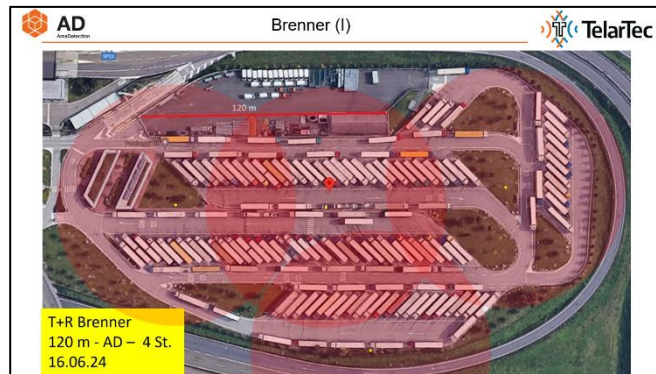


Figure 3

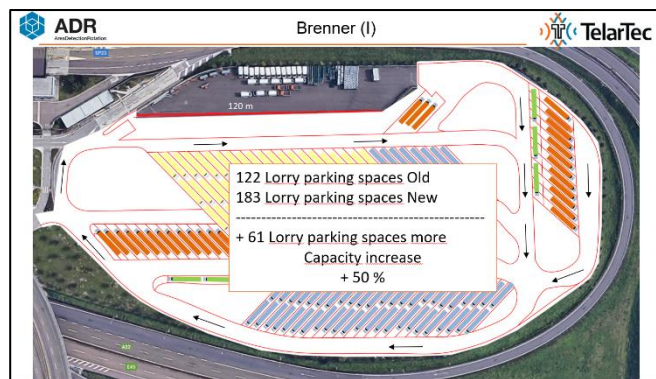


Figure 4

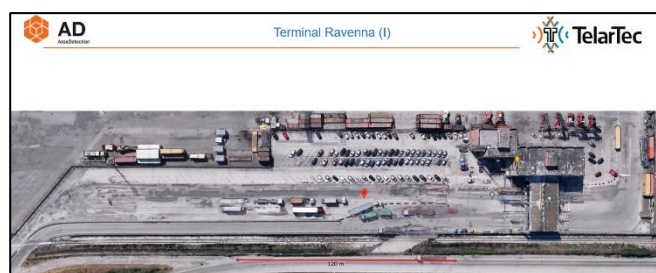


Figure 5