



## Increased safety for public transport organisation

# TRAM DEPOT PILSEN RELIES ON DALLMEIER VIDEO TECHNOLOGY



### Requirement

- Large premise
- As few cameras as possible
- High image resolution
- High standards of data protection and cybersecurity

# 41,000 m<sup>2</sup> outdoor area protected



GDPR & NDAA compliant video security solution

#### Solution

- Video technology suitable for large areas
- Easy installation
- Panomera® multifocal sensor cameras

#### Result

- Video footage as educational material for enhanced safety
- Fast response times for security personnel
- Incidents can be solved immediately



"Thanks to perfect hand in hand project planning, the customer had 100 % certainty in terms of image quality and area coverage."

Jan Bajnar, Dallmeier Business Development Manager Czech Republic and Slovakia







In Pilsen, the fourth largest city in the Czech Republic, the tram plays a vital role in public transport. With a 45 % share, it is an important means of local transport within the city. The carriages are stored in a tram depot when not in use or for maintenance. In 2024, the completion of the new depot in Slovany marked a milestone, bolstered by advanced video security technology from Dallmeier, enhancing safety and security across the entire premises.

#### Meeting strict safety and security standards

The project began with an extensive analysis of existing conditions and requirements for modernising the rolling stock to meet the latest safety and efficiency standards. This goes hand in hand with one of the main objectives, namely to increase the safety and security of the entire depot area plus the vehicle fleet, by using video surveillance technology. As part of the complete reconstruction of the Slovany depot, this requirement was met by the implementation of the patented Panomera® technology and the system's unique capabilities: Providing high image quality with the possibility to zoom in on details also at

long distances, from a minimum number of installation points, which enables effective monitoring of large scale areas, like a tram depot.

#### Precise planning eliminates blind spots

In the past, PMDP, the public transport operator, tried to get a handle on the situation with a large number of conventional single-sensor cameras. However, the image quality was insufficient for recognising or even identifying people. Thus, the security managers looked for a new solution — and found it in Dallmeier's multifocal sensor technology. The implementation of the Panomera® surveillance cameras itself required careful preparation and coordination with many stakeholders. All parties involved, PMDP, the installer company Vegacom and Dallmeier, had to carry out a thorough analysis of the site, in the first phase of the project, in order to ensure optimal coverage of the entire depot area without blind spots. This included calculations of the optimal mounting height of the cameras, their distance and the setting of the viewing angles.



The new tram depot in Slovany, Pilsen.





Panomera® cameras ensure security of the premises.

#### 3rd party integration

Equally important was the focus on the technical aspects of the project, in particular the integration of the Panomera® system into the transport company's existing security infrastructure. It was essential that the new system was fully compatible with the technologies already in use, which required the development of specific software for managing and archiving records. New data networks and servers to process and store the huge amount of data generated by the cameras were also part of the project.

#### Data protection and cybersecurity guaranteed

As a public transport operator and therefore part of the critical infrastructure, particular attention was paid to protecting data, ensuring cybersecurity and securing the transmission network. For this reason, it was important to install a robust system that is resistant to unauthorised access to the recordings, for example. Under the motto "Privacy and Security by Design", the Dallmeier solutions offer a wide range of technical and software features to meet the requirements for data protection and cybersecurity.



Panomera® multifocal sensor technology for large scale areas.

#### Immediate security incidents resolution

The implementation of Panomera® technology also fundamentally changed the approach of PMDP, to monitoring the equipment and security of the area. Thanks to the wide viewing angle and high resolution of the cameras, it is now possible to monitor the entire area of the depot in great detail, while it is possible to immediately identify and solve almost any security incident or unusual activity.





#### Added value for educational goals

The project also included a training component for safety and technical maintenance staff. "The staff of PMDP needed to learn how to effectively use the new system to monitor and analyse data. This meant that one project focus was to use the video footage for training to identify potential risks and prevent potential safety hazards", was the summary of Daniel Frous, Project Manager at Vegacom.

#### Conclusion

Although the project presented a number of technical and organisational challenges, thanks to the excellent teamwork and expertise of the specialists involved, it was successfully completed within the planned time frame. The result is a modern, safe and efficiently functioning depot, which is equipped with top technology for monitoring and securing the entire area.

The expected result from the company's management is both a reduction in the number of incidents and potential cost savings associated with better use of resources and damage prevention. "In conclusion, we can express full satisfaction with the progress and final result of the project", summarises Jan Bajnar, Dallmeier Business Development Manager Czech Republic and Slovakia.

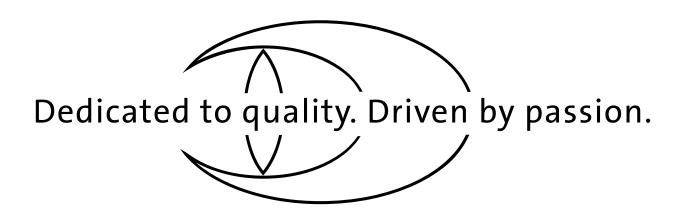
- Panomera® cameras
- Privacy and security
- **Dallmeier Solutions for Safe City**











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