

VIDEO SECURITY SOLUTIONS FOR  
**STADIUMS**



# WHY DALLMEIER FOR STADIUMS?



## ADDRESSING **STADIUM CHALLENGES.**

- Pyrotechnics, alcohol consumption, smoking
- Hate crime, racist incidents
- Anti-social behaviour
- Use of laser light pens
- Monitoring safe standing areas

## MAXIMUM EFFICIENCY WITH **PANOMERA®.**

- A minimum of cameras required
- Unlimited "Virtual PTZs"
- Lowest infrastructure costs
- Large scale situational awareness

## TAILOR-MADE SOLUTIONS **FOR EVERY AREA.**

- Recognition quality inside the bowl
- Internal surveillance for concourses, lounges, licensed areas
- Access ways and approaches, Zone Ex
- Sterile areas and parking
- Training grounds and perimeters

## DEVELOPED FOR **STADIUM REQUIREMENTS.**

- Track unlimited numbers of people over a whole stand
- Seamless incident management
- Tracking ⇒ evidence creation ⇒ export for forensics
- LGC Forensic approved for evidential integrity
- Records a whole season of matches without any losses

## SECURITY **MADE IN GERMANY.**

- Reliable and low maintenance
- EU-GDPR-ready
- Highest level of cyber security
- MOUNTERA® mounting system for maximum efficiency
- No moving parts – install and forget

## STATE-OF-THE-ART **VIDEO ANALYTICS.**

- Sterile zone monitoring
- Detection of intruders or urban climbers
- Object and people counting

## TECHNOLOGY FOR **TAILORED SOLUTIONS.**

- Multifocal sensor systems
- Single sensor cameras
- HEMISPHERE® software modules
- Video analytics
- Integration of third party applications from access control to fire alarms and more

## 36 YEARS OF **STADIUM EXPERIENCE.**

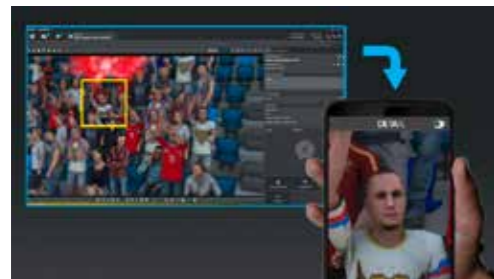
- From small stadiums to the world's largest arenas
- 25 UK stadiums using Dallmeier technology
- Trusted system in 14 Premier League clubs



## DISPATCH MANAGEMENT

### INCIDENT MANAGEMENT. REINVENTED.

With a combination of superior **camera technology** and the modular **HEMISPHERE® software platform**, Dallmeier offers a unique total package which includes incident management, video technology as well as **VCA and AI-assisted video analysis**.



#### BENEFITS

- Comprehensive information on the entire stadium environment in real time
- Guided and proven ergonomic operation for police and security forces, even under stress
- Efficient management of response teams „in action“ through support with real-time photos, videos and evidence gathering – including mobile devices
- Centralised capture of all incident data (photos, videos, witness statements, documents, etc.) in a digital incident file and forwarding to related systems (police, legal, etc.)

## APPROACHES & STERILE AREAS

### SECURITY IN EVERY WAY.

For safeguarding the approaches, effective situation awareness and the control of response personnel as well as traffic direction are again paramount. The ability to define minimum resolutions ensures data quality for analytics and court-usability of backups for effective victim protection.



#### BENEFITS

- Reduction of offences and vandalism outside the stadium as well
- Dispatching and direction of police and security staff through permanent tracking of visitor flows
- Usable evidence for courts and the police; improved victim protection
- Permanent coverage of large expanses with Panomera®
- Improved traffic management for local public transport vehicles

## PARKING

### LESS IS MORE.

For parking areas, the **Panomera® systems** offer optimum coverage of large expanses with minimum outlay for cameras and infrastructure. The minimum resolution required for reliable tracking of damage claims and offences is assured at all times. **Analysis techniques** such as number plate recognition provide powerful tools for stadium operators to improve visitor service and save time.



#### BENEFITS

- Increased security and protection from vandalism including claims management
- Uninterrupted accompaniment of guest fans from the bus or public transport areas to the stadium
- Improved utilisation management
- Improved and new service offerings through automated license plate recognition and processing (ANPR)

## ENTRANCE AREA

### WHO IS WHO?

Dallmeier systems allow simple changes of perspective and guarantee an overview of the situation and general contexts with substantially less outlay for infrastructure than conventional solutions. Dallmeier also offers **services for integrating** face recognition systems, e.g., for „blacklist“ procedures or forensic analyses.



#### BENEFITS

- Control of personnel and visitor flows in the event of bottlenecks upon entry
- Support of automated identification of „blacklisted“ (subject to compliance with legal data privacy requirements)
- Detection of „tricks“ such as ticket swapping
- Support of forensic evaluation (e.g. finding a person) in the video backup



## INTERIOR SURVEILLANCE WHAT'S INSIDE?

In the areas inside the stadium, video security faces many challenges. With Dallmeier **single sensor** and **Panomera®-solutions** and the **3D-planning** approach, stadium operators can ensure perfect coverage of even the most complex interior spaces.



### BENEFITS

- Surveillance of indoor paths, stands entrances, kiosks, fan shops, museums, etc.
- Unsurpassed coverage with definable minimum resolution density in complex interior areas
- Exceptional views and changes of perspective with a combination of Panomera® and Panomera® 180°/360° technologies

## GRAND STANDS SEE MORE WITH PANOMERA®.

In the **3D model**, all camera views are simulated exactly until the required minimum resolution is achieved and objects blocking the field of vision have been eliminated literally in every „last corner“. The combination of different **Panomera®** models enables events to be viewed from several different viewpoints. Many **modern video analysis techniques** are also available.



### BENEFITS

- Panomera® permanently captures the entire scene and simultaneously allows high-resolution detail zooms by several users – live and in the recording
- Successful intervention and usable evidence through plannable, high resolution over the entire area
- Reduced fines and easier recovery of penalties for fan misconduct
- Various video analysis functions, e.g. people counting
- The HEMISPHERE® SeMSy® solution suite combines several Panomera® views

## PANOMERA® IN USE WHAT STADIUMS SAY



The Panomera® systems are an extremely beneficial investment for preventing incidents and most importantly for identifying offenders, particularly with regard to the prohibited fireworks, which are unfortunately becoming more and more popular.

**Jaromir Hamouz**  
Business and Marketing Manager, Viktoria Plzeň



The installation at Rangers FC went smoothly and has produced outstanding images with an intuitive front end, allowing the club to expand as both risk and requirements change.

**Brian McNeill**  
CEO, Systemica Ltd.  
(Glasgow Rangers FC)



Overall, the Panomera® cameras have enabled us to significantly increase our stadium security and greatly reduce the number of incidents.

**Dave Lewis**  
Head of Security and Stadium Safety,  
FC Everton



The extremely high detail resolution, the capability of integrating our existing system and particularly the intuitive operation of the system were the decisive factors for us. We are more than satisfied, both with the system and with the consulting support we have received from Dallmeier.

**Jürgen Muth**  
Managing Director, Allianz Arena (Bayern Munich)



With Panomera®, we can detect incidents very quickly and transmit the video evidence to the police within just a few seconds. The new cameras have already delivered outstanding results during several matches and we are very satisfied with the cooperation with Dallmeier.

**Francesco Gianello**  
Head of Facilities Management, Allianz Stadium  
(Juventus Turin)



One of the most important features for us is that the entire scene is recorded without interruption. This means that if something does happen, we can look for it in the recordings at any time. And the resolution of the cameras is really impressive, not only live but also in the recordings.

**Armin Gallus**  
Member of the crisis management team with the police, Eintracht stadium Braunschweig

# A SELECTION OF REFERENCES WORLDWIDE.



## 14 PREMIER LEAGUE

stadiums in UK with 565,000 seats

## 14 SERIE A-C

stadiums in Italy with 418,000 seats

## 30 BUNDESLIGA

stadiums (1<sup>st</sup>-3<sup>rd</sup> league) in Germany with 830,000 seats



REDBULL ARENA, LEIPZIG



SINGAPORE SPORTS HUB



ALLIANZ STADIUM, TURIN



OLYMPIC STADIUM, BERLIN



EMIRATES STADIUM, LONDON



IBROX STADIUM, GLASGOW



CRAVEN COTTAGE, LONDON



BAKU NATIONAL STADIUM



ALLIANZ ARENA, MUNICH



RHEINERGIE STADIUM, COLOGNE



GOODISON PARK, LIVERPOOL



DOOSAN ARENA, PLZEŇ



GENERALI ARENA, PLZEŇ



JAHN STADIUM, REGENSBURG



SIGNAL IDUNA PARK, DORTMUND



EINTRACHT STADIUM, BRAUNSCHWEIG



ST. MARY'S STADIUM, SOUTHAMPTON



WESTPAC STADIUM, WELLINGTON

DALLMEIER HEMISPHERE®

# INTEGRATION, INTERFACES, MANAGEMENT.

The modules of the **HEMISPHERE® software platform** can be combined to create partial or complete solutions for data management in the stadium up to comprehensive building and infrastructure management systems (PSIM).

The combination with the superior **Panomera® video technology** opens up new ways of integrating a wide variety of video-generated data. Numerous standard **interfaces to third party systems** as well as the option of customised interface programming complement the offering.

## Open, but with in-depth integration and control options

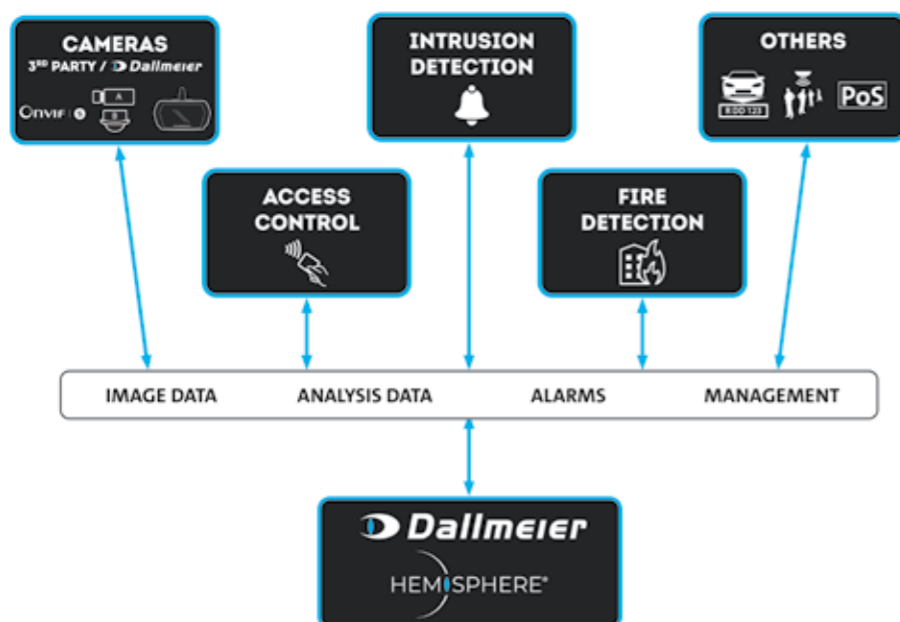
Users can easily integrate products and security systems from other manufacturers into the Dallmeier HEMISPHERE® software platform.

These include:

- IP cameras (via ONVIF, RTSP)
- Access control systems
- Intrusion detection systems
- Fire alarm systems
- and much more

## Integration is possible thanks to standard interface plug-ins using

1. HEMISPHERE® Data Interface Module for integration of third party systems within HEMISPHERE® with extensive control. Includes SeMSy® map / active elements map integration.
2. HEMISPHERE® SeMSy® Interface Module for integration of legacy third party systems into SeMSy® with basic control options.





Dedicated to quality. Driven by passion.

Dallmeier electronic GmbH & Co.KG  
Bahnhofstr. 16  
93047 Regensburg  
Germany

Tel: +49 941 8700-0  
Fax: +49 941 8700-180

[info@dallmeier.com](mailto:info@dallmeier.com)  
[www.dallmeier.com](http://www.dallmeier.com)

 MADE IN GERMANY

