

From Hazards to Flow in Seconds: Transforming Industrial Safety & Productivity with Physical AI + Computer Vision

by Sentics



Tuesday, 31st March 2026
11:00 - 12:00
Online Webinar



Join us for an exclusive LIVE session directly from the shopfloor at the Sentics headquarters in Wolfsburg!

In this webinar, we demonstrate **how Sentics uses Physical AI to turn potential hazards into a smooth operational flow.**

Sebastian Bienia and Michael Demes will show you live in action how to:

- Prevent Accidents: See how the system anticipates risks in real-time.
- Automate Infrastructure Intelligently: seamless logistics without unnecessary stops.
- Protect Human Lives: The ultimate priority—ensuring safety without compromising productivity.

This is not just a presentation; it is a live demonstration of the system in operation.



Sebastian Bienia



Michael Demes

Agenda:

- 11:00 - 11:10 Welcome by Daniel Kohl, C4L
- 11:10 - 11:50 Presentation by Sentics
- 11:50 - 12:00 Q&A Session

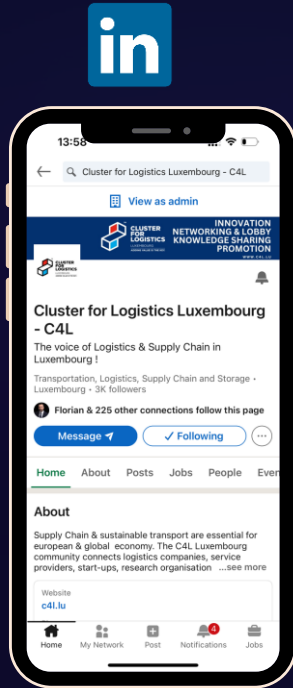
Webinar Registration:
www.c4l.lu/event



Register using the form on this website.
The webinar link will be sent prior to the conference.

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We Thank Our Partners & Premium Members

The Cluster for Logistics Luxembourg acknowledges the vital support of our partners and premium members, whose commitment enables us to advance Luxembourg's logistics sector.



Through our collective efforts, we continue to strengthen Luxembourg's position as a leading European logistics hub and drive innovation in the sector.



 **sentic**

Physical AI powering safety and efficiency in intralogistics

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Today's Agenda

01 Who is Sentic?

Physical AI for industrial environments

02 How Sentic's Physical AI Works

Camera-based detection + Digital Live Twin

03 Challenges

Air cargo, high-volume warehousing & logistics hubs

04 Solutions

Automation, Analytics and Safety

05 Q&A

Open discussion

WHO IS SENTICS?

Physical AI for Industrial Environments

100%

Camera based

<200ms

Reaction time

24/7

Automated monitoring

Real-Time

AI decisions
on shopfloor

*"One AI that protects, documents, and runs your
complete shopfloor – autonomously."*

HOW SENTICS' PHYSICAL AI WORKS







Where Physical AI Delivers Immediate Value

Two high-stakes environments. One AI platform.







Air Cargo & Airport Logistics

Where every second — and every label — counts

-  **GSE & ground vehicle collisions**
-  **Label misreads causing flight delays and missorts**
-  **Conveyor failures, minutes lost locating the issue**
-  **Unauthorized access to restricted airside zones**

High-Volume Warehouse & Logistics

Speed, accuracy & safety — at scale

-  **Forklift-pedestrian conflicts in dense pick areas**
-  **Gate & Dock Damage, trucks moving too early**
-  **Wrong items shipped due to mis-scanned labels**
-  **No audit trail when incidents occur**
-  **AGVs operating blind — no slot occupancy data**
-  **Load documentation done manually — error-prone & slow**

One Platform — Two Industries

These challenges exist in every high-throughput logistics environment



Label Errors & Cargo Mis-sorts

Wrong reads, missed scans, misrouted shipments — costly in any high-throughput environment.

✓ **Camera-based label reading — <2% no-read rate, real-time mismatch alerts**



Gate & Dock Damage

Vehicles moving before gates are clear — weekly damage costs, no automated verification.

✓ **Automated gate control — position verified before release, zero manual checks**



No Audit Trail

Near-misses, loading events, incidents — nothing documented automatically, no data for improvement.

✓ **Every event logged — timestamp, camera image, location — always audit-ready**



Label Reading & Cargo ID

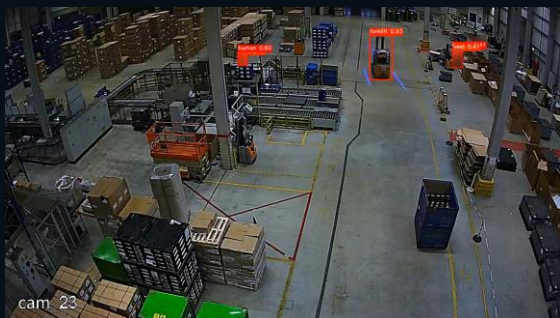
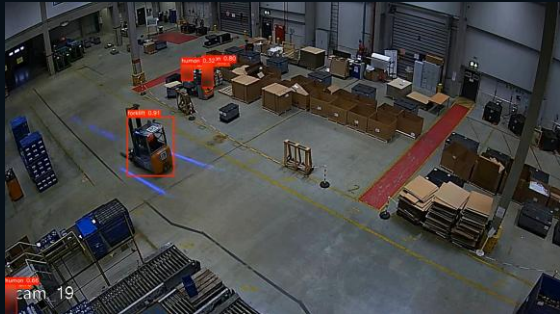
Camera-based barcode & label
detection

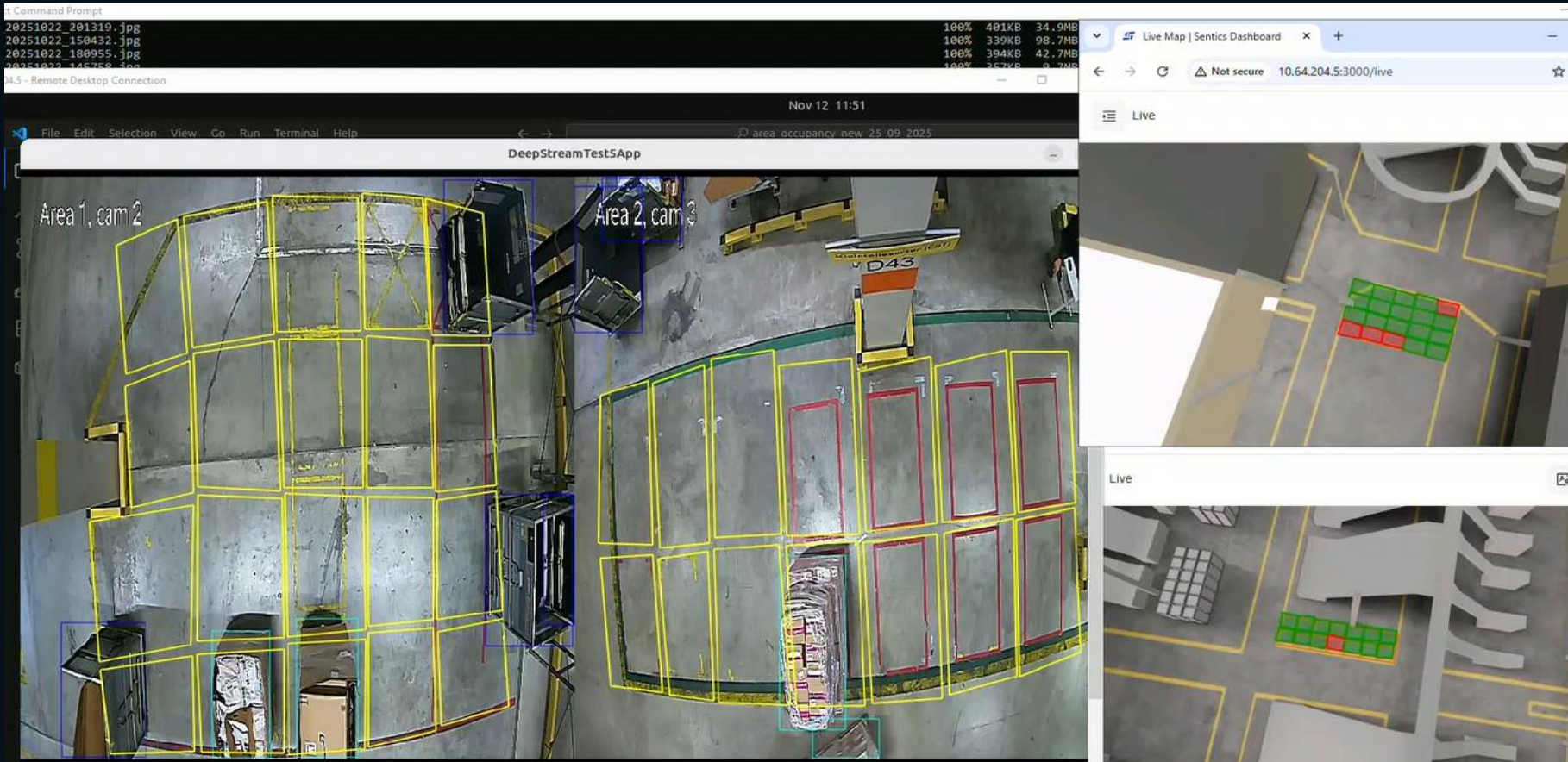
RELEVANT FOR

✈️ Air Cargo

📦 Warehouse

📄 Both sectors





Slot Occupancy Detection

Camera detects occupied vs. free positions — AGVs dispatched precisely.

RELEVANT FOR

✈ Air Cargo

📦 Warehouse


🔄 Both sectors



AGV Route Optimization

AI-optimized routing for AGVs based on live shopfloor data — fewer empty runs, faster throughput

RELEVANT FOR

 Warehouse

 AGV / AMR

 Efficiency






Safe Zone



AGV–Forklift Collision Prevention

Animation-based visualization of autonomous collision avoidance between AGVs and manned forklifts

RELEVANT FOR

 Warehouse

 AGV / AMR

 Safety



Back- & Side-Loading Documentation of trucks

Automated visual documentation of rear and side loading — timestamp, camera image, load securing verified

RELEVANT FOR

 Warehouse

 Compliance

● LIVE

[LIVE DEMONSTRATION FROM SHOPFLOOR]

Forklift & Person Detection

Persons detected even when occluded by the forklift — automatic stop triggered before contact.

RELEVANT FOR

✈️ Air Cargo

📦 Warehouse

● LIVE NOW

ONE AI AGENT. THREE PILLARS.

Why Sentics: Unlimited Scale Across Your Entire Operation with Physical AI



Safety

- ✓ Autonomous collision prevention
- ✓ Area & zone violation detection
- ✓ Lone worker protection
- ✓ PSA / PPE compliance checks
- ✓ Speed zone enforcement
- ✓ Gate & dock access control

✓ No body-worn devices



Operations

- ✓ Intelligent gate automation
- ✓ Label reading & cargo ID
- ✓ AGV & forklift task automation
- ✓ Speed zone enforcement
- ✓ Automated dock status
- ✓ Wheel chock detection

✓ No IT infrastructure changes



Analytics

- ✓ Real-time KPI dashboards
- ✓ Process heatmaps
- ✓ Automated load documentation
- ✓ Safety trend reporting
- ✓ Multi-site comparison
- ✓ Configurable custom KPIs

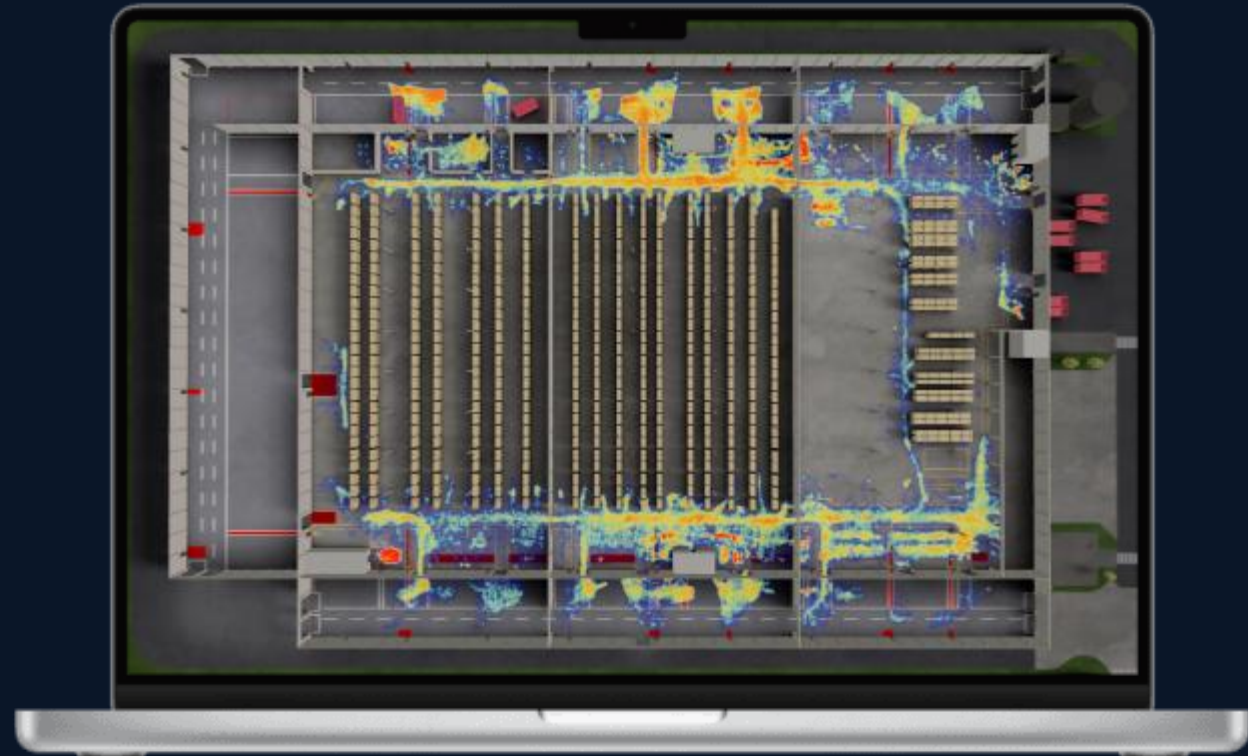
✓ Scales across sites and facilities

The Sentics Dashboard — Your Live Safety & Efficiency Control Centre



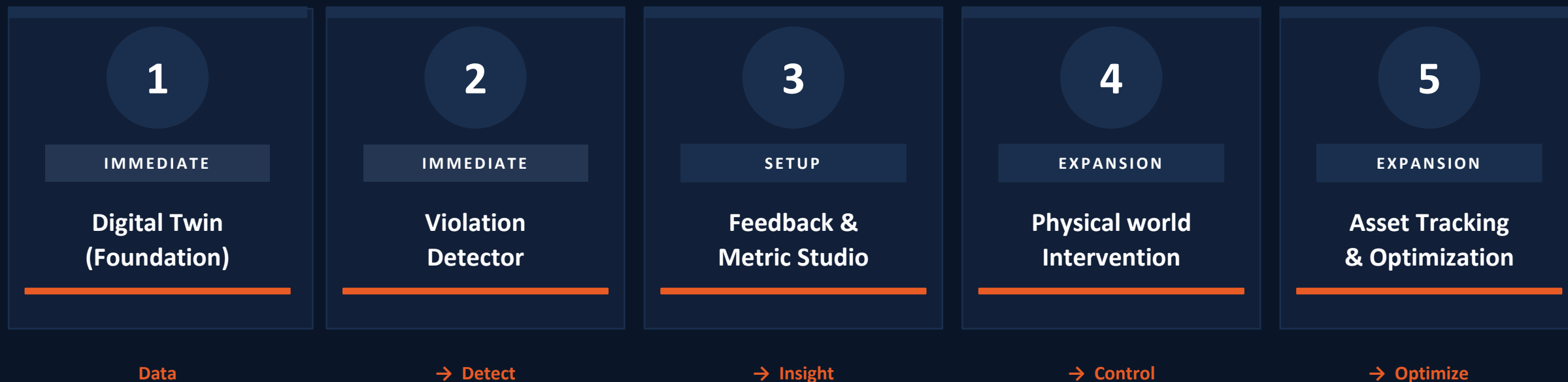
Efficiency and occupational
safety analyses

Flexible definition of safety
and productivity KPIs



5-PHASE ROLLOUT

From Approval to Go-Live in 12 Weeks — Step-by-Step on Existing Infrastructure



Let's talk about what Physical AI can do for your logistics operation.

www.sentic.de



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safe. because human.

