



ESSENSIUM

# REAL-TIME LOCATION PLATFORM

## for warehouse safety & productivity



Accurate real-time  
fleet tracking

### Introducing the Next Generation Essensium RTLS

**The camera-based RTLS (Real-Time Location System) is the next generation EPS** (Essensium Positioning System) based on a multi-camera approach. The solution can easily be installed on any type or brand of forklift. Thanks to its vehicle-centricity it does not require any additional infrastructure to determine its position. The RTLS solution enables different applications including SafeTrack™, warehouse productivity and much more to come.

### Safety Comes First

**SafeTrack™ works for Forklift-to-Forklift and Forklift-to-Pedestrian interactions.** The system actively warns the drivers and the pedestrians of upcoming potentially dangerous situations. The site operator can specify safety operating rules tailored to the needs of the customer environment (by forklift and by warehouse zone) and the vehicle can be configured to automatically slow down the vehicle. The Essensium Positioning System monitors all building blocks and identifies potential issues and allows to take appropriate actions.



Protect your people  
and your fleet



Improve warehouse  
efficiency

### Improved Warehouse Productivity

**The Essensium RTLS enables a suite of productivity tools.** Via an online dashboard, the users get access to real-time analysis of the overall performance of the equipped vehicles giving a clear view on all key safety and productivity parameters. This includes fleet management, alarm heatmaps, congestion maps, route optimization, and much more to come. All data can be viewed both in real-time and as historical data to identify trends. This allows customers to continuously improve the safety and productivity in their warehouse.

Essensium's multi-camera device





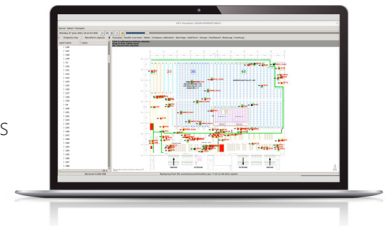
## Technical Capabilities

### The Essensium RTLS consists of different components:

- Multiple cameras: a set of cameras calculates the position and the orientation of the forklift vehicle with respect to the surroundings.
- Inertial sensors: measure the motion of the forklift to complement camera-based positioning.
- Signs and existing reference points in the warehouse or industrial site are tracked and continuously enriched through our AI-approach.
- Both absolute and relative positioning are implemented redundantly in this approach.
- Performance Based Analytics: giving customers insights in all operational data to understand what is happening with the forklift in the warehouse and/or the industrial site.
- AI (artificial intelligence): accurate and robust visual detection of pedestrians around the forklift vehicle.

## Easily Configurable

- Speed zones
- Exclusive aisles
- Safety barriers
- No entry zones
- Collision zones
- Parking areas



## How it works?

The Essensium RTLS (EPS) is integrated into the forklift. We can install cameras and sensors on the forklift. Moreover, a light tower in the cabin (to warn the driver) and speed reduction (to slow down the forklift) are available as options. A site survey is performed to chart reference points, ceiling lights, etc. The customer defines the parameters e.g. safe operating rules and the data needed to make the right decisions. Via an online dashboard, the EPS users get access to real-time analysis of the overall performance of the equipped vehicles giving a clear view on all key safety and productivity parameters.

## Why choose Essensium?



### Vehicle Centric

Vendor agnostic vehicle positioning and alerting equipment for your entire fleet



### Infrastructureless

Your fleet is the core of the solution.  
No extra hardware required



### Collision Avoidance

Detect and prevent potential collisions



### People

People detection with on-board AI vision



### Configurability

Tailor the solution to your environment and your safety guidelines



### Monitoring

Remote monitoring to ensure the efficiency of your system

## About Essensium

Essensium is a pan-European leader in the engineering and commercialization of high tech positioning and safety systems for the logistics and warehousing industry. It has built up a unique expertise resulting in a series of revolutionary products and solutions that enable accurate traceability of assets and people using own developed wireless sensors and other innovative technologies. The company was founded in 2005 as a spinoff from IMEC.

## Let's talk!

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