



# Actiw Presentation



# Us

Actiw is one of the leading outbound logistics innovators and solution providers for industrial warehousing and storage.

We have solved, optimized and automated 200+ material handling processes for multiple industries for over 30 years with our automated loading equipment, intelligent turnkey solutions and 24/7 services to improve the safety and productivity of your loading.

We commit and dedicate ourselves to lighten the load of our customers.



# Introduction

- Actiw Oy is a Finland-based manufacturer and turnkey integrator, specialized in intelligent and sustainable automated unit load buffering and loading solutions
- Actiw has a solid track record with dozens of successful installations at internationally known FMCG and Industrial Companies
- Actiw solutions have been well proven in a wide range of industries and environmental conditions with demanding inventory and dispatch management requirements for over 30 years worldwide

## Key Aspects of ACTIW solutions:

- Robust, proven, high density, high throughput, LoadBuffering and Automatic loading solutions
- Proven, high efficiency, automated loading solutions based on no modifications required to standard trucks, trailers or containers
- Highly efficient solutions in terms of energy, running costs & maintenance costs
- Full integration of buffering, sequencing and loading into flexible solutions that can evolve with the business
- Seamless integration to customer's ERP system and tailored functionality according to customer demands

# Overview



Company  
Founded in  
1970, head  
office in Finland



30 employees.  
Focusing in  
providing  
customers with  
turnkey solutions  
and seamless  
project handling



Unique solutions  
for automated  
unit load storing,  
sequencing/buff  
ering and  
loading of non-  
modified trucks  
and containers



Head Office in Finland  
Subsidiary in India from 2017



# Selected References



# Solutions

## LoadPlate®

### Increase outbound material flow

Actiw LoadPlate® is semi-automated loading equipment for regular, non-modified trucks and containers, applicable for e.g. metal, timber and complex cargo.

## LoadMatic®

### Automate outbound material flow

Actiw LoadMatic® is fully-automated loading equipment for regular, non-modified trucks and containers, applicable for palletized or palletless goods of various industries.

## LoadForming

### Optimize outbound material flow

Actiw LoadForming is a solution to optimize the whole outbound material flow. The LoadForming solution integrates existing warehouse to automated loading equipment to increase the capacity in outbound logistics.



 **ACTIW** **LoadPlate®**

# Solutions - LoadPlate



- **Actiw LoadPlate®** is a semi-automated loading machine for containers and regular, non-modified trucks. Our customers use LoadPlate for complex or long cargo, such as steel or lumber.
- LoadPlate can load 30 tons of cargo into a 40-foot container in only 5 minutes. LoadPlate was developed to improve our customers' loading operations and was first introduced into the market in 2001.



# Benefits of LoadPlate



## Improve work safety

When load handling involves manual work, there is a high risk to safety in each step. When you automate the process, you reduce that risk.



## Prevent handling damage

Eliminate damage to your products when loading them into trucks or containers. A reliable automatic loading solution keeps your products intact and your end customers satisfied.



## Increase operational efficiency

Automation eliminates unnecessary work in load handling. A typical loading crew has three members, whereas LoadPlate can be run by a single operator.



## Save on machinery investment

LoadPlate significantly reduces your fixed asset costs, replacing a fleet of forklifts with one loading machine.



## Increase loading capacity

When stuffing long goods or special cargo, LoadPlate can increase total handling capacity by 33% compared with traditional loading.



## Boost eco-efficiency

LoadPlate generates additional savings by reducing energy consumption. It runs on electricity instead of diesel oil, eliminating harmful emissions.



ACTIW LOADMATIC®

 **ACTIW** **LoadMatic®**

# Solutions - LoadMatic

- Effective loading and load forming solution for automatic pallet staging before truck has arrived
- Number 1 automated loading solution for regular containers and trailers
- 50 lines in operation globally, +1,000,000 loads completed
- Solution for regular, non-modified, container, truck and trailer loading
- Works with pallet, slip sheet, and palletless
- Suitable for nearly all standard, and many non-standard pallet/load sizes, even on same load.
- Complex load patterns possible
- Loading cycle less than 10 minutes
- Truck neutral, automatic alignment with truck and confirmation of load space
- Matching of truck loading height changes due to suspension sag during loading



# LoadMatic Value Drivers

## Safer working environment

- Elimination of forklift traffic and other manual transfers

## Unmodified cargo space

- Higher availability, results in more flexible dispatch operations

## Fast loading

- One shot loading method
- Loading takes place in only a few minutes

## Operational cost effectiveness

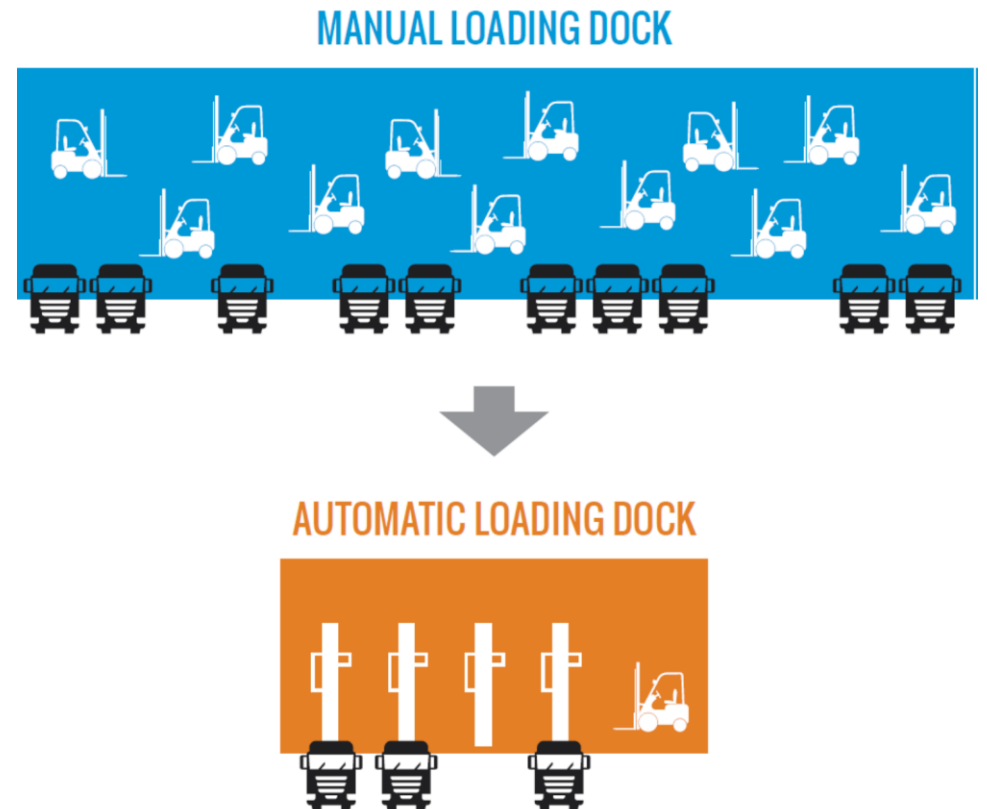
- Less manual work and equipment needed
- Shorter turnaround times of vehicles

## Elimination of damages

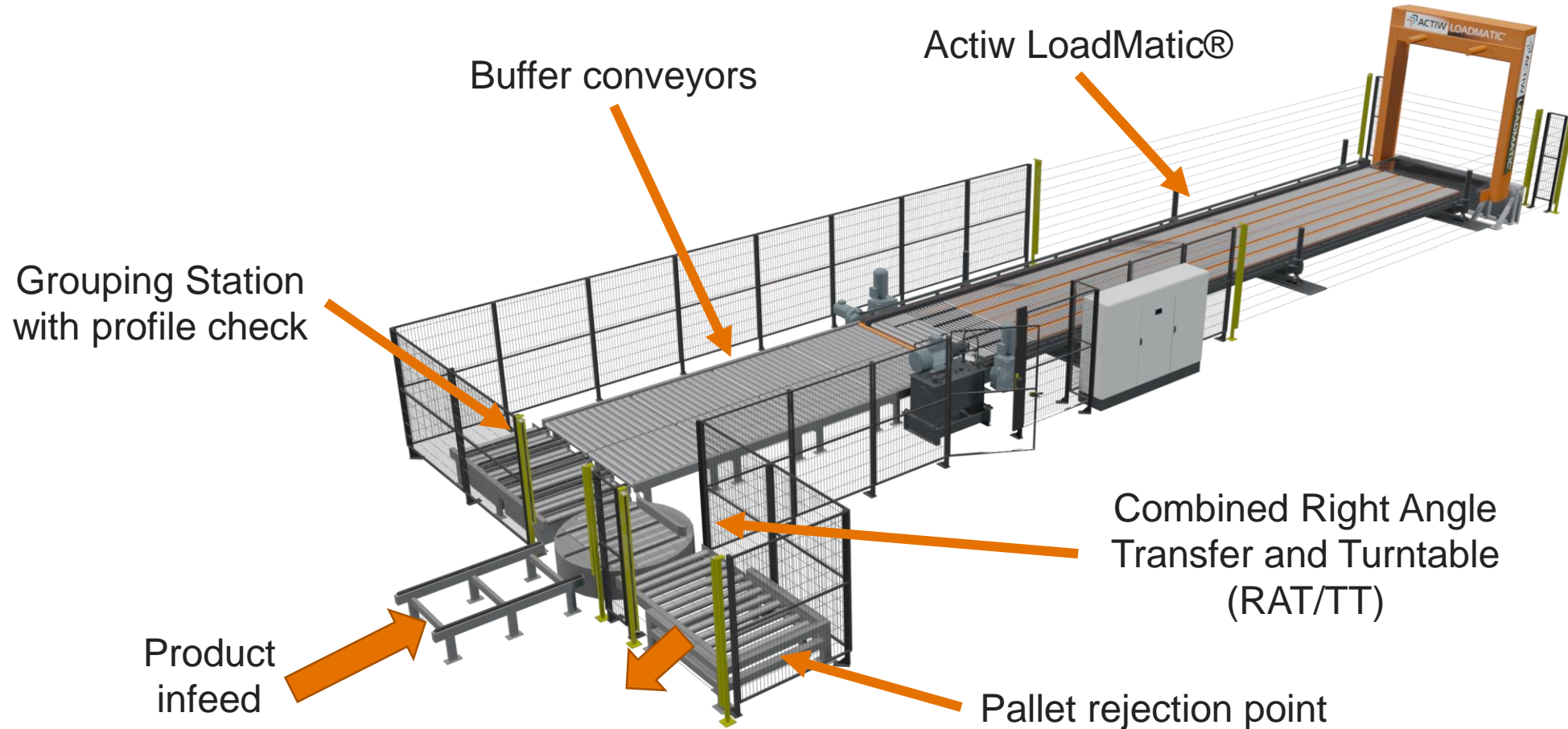
- Reduced damage of goods and equipment due to the controlled flow of goods
- A gentle loading method
- Load distributed evenly by the one shot loading principle

## Reduced carbon footprint

- High energy efficiency



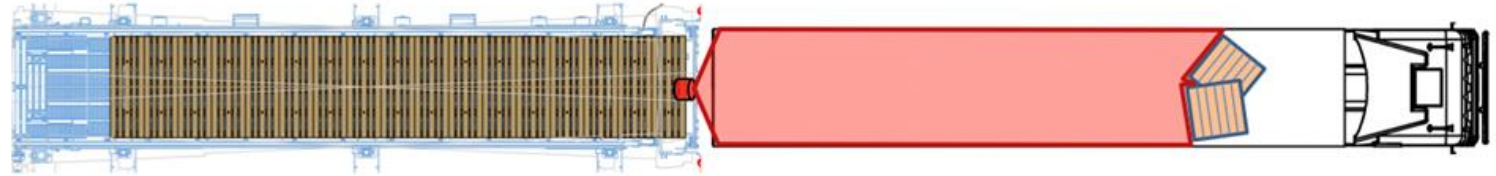
# LoadMatic system components



# LoadMatic Functions – Automatic alignment

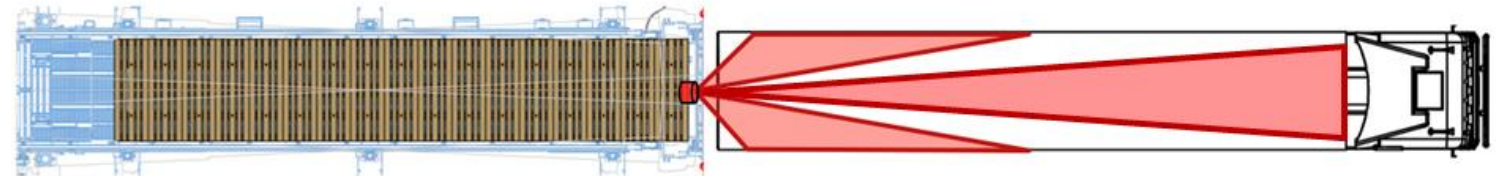
## Step 1

1. Scan free space of cargo space



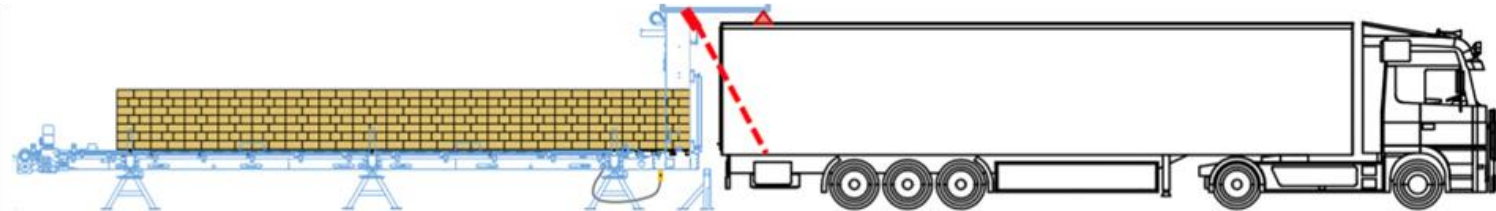
## Step 2

1. Scan angle and length of the cargo space
2. LoadMatic automatically align according measured data



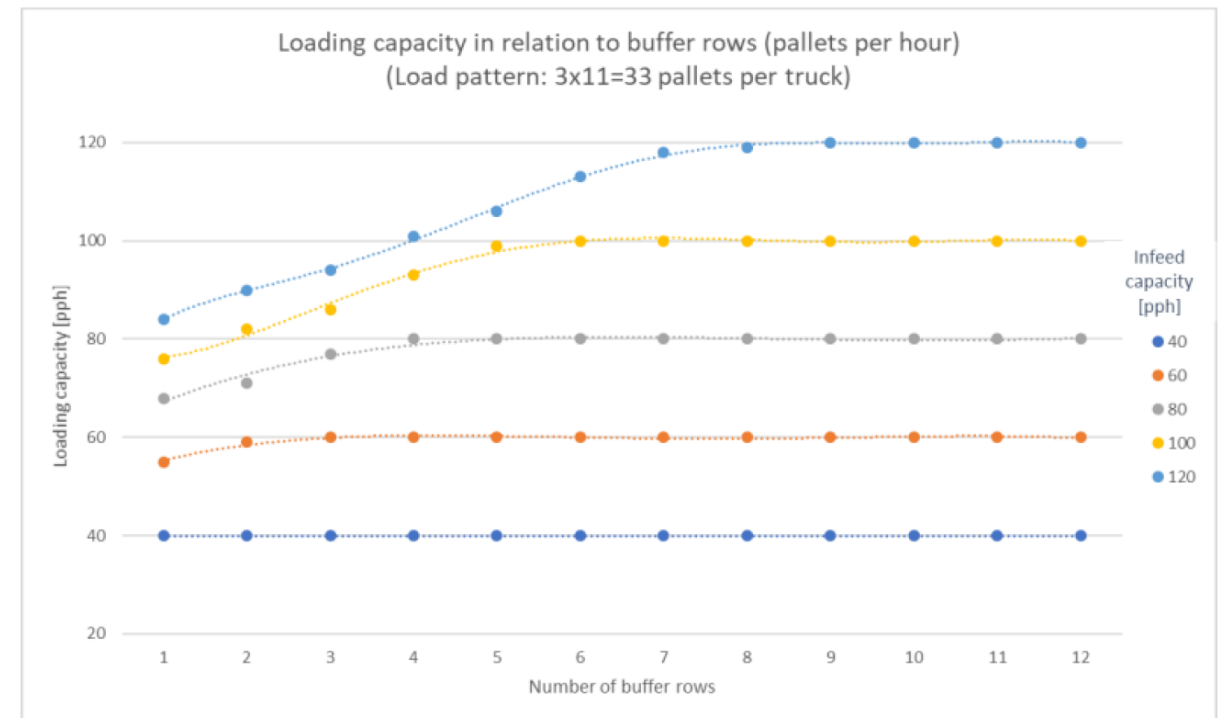
## Step 3

1. Scan height of the truck
2. Auto adjusting height
3. During loading following height changes of truck



# LoadMatic Capacity

- LoadMatic capacity is impacted by multiple factors
  - Infeed speed from upstream
  - Possible waiting time from trailer arrival
  - Loading patterns
  - System layout



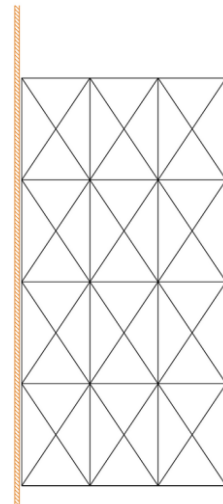
Example capacities with 3 EUR pallet short side leading

# LoadMatic Flexibility

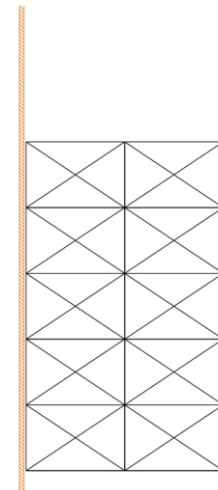
## Trailer and container types

- Suitable for almost any non-modified trailers
- Trailers
  - 13,6m / 47ft / 53ft / etc.
- Containers
  - 20ft / 40ft / 45ft / 53ft
  - DC, High cube, pallet wide etc.

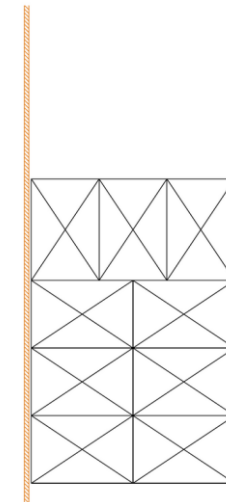
## Loading patterns



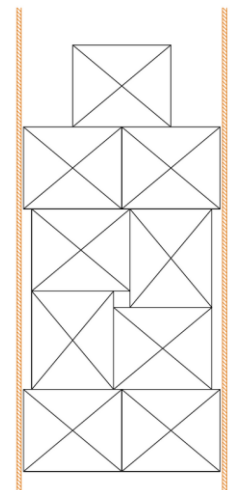
3 pallets short side leading



2 pallets long side leading



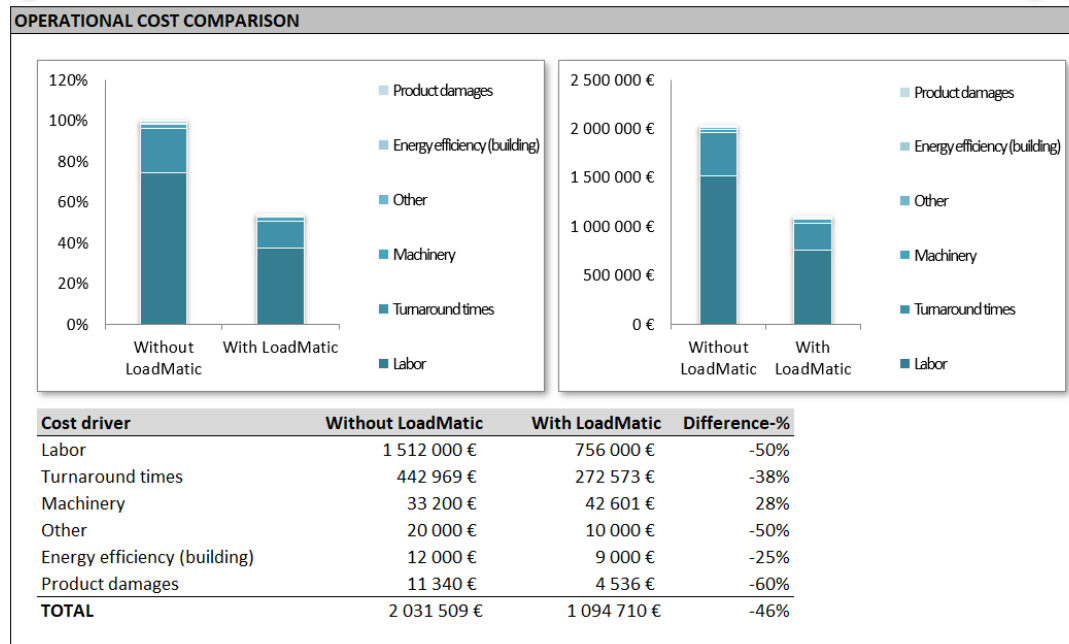
Mixed long and short side leading



Pinwheel pattern



# LoadMatic ROI and Lifecycle cost



Case figures from FMCG customer in NA

	Per loading
Spare parts and wearables	0,6€
Power consumption @ 0,1€/kWh	0,4€
Intervention & maintenance @ 25€/h	0,2€
<b>Total OPEX</b>	<b>1,2€</b>

Note:

Estimated cost figures and intervention requirements are measured from existing projects. Project specific costs can vary.

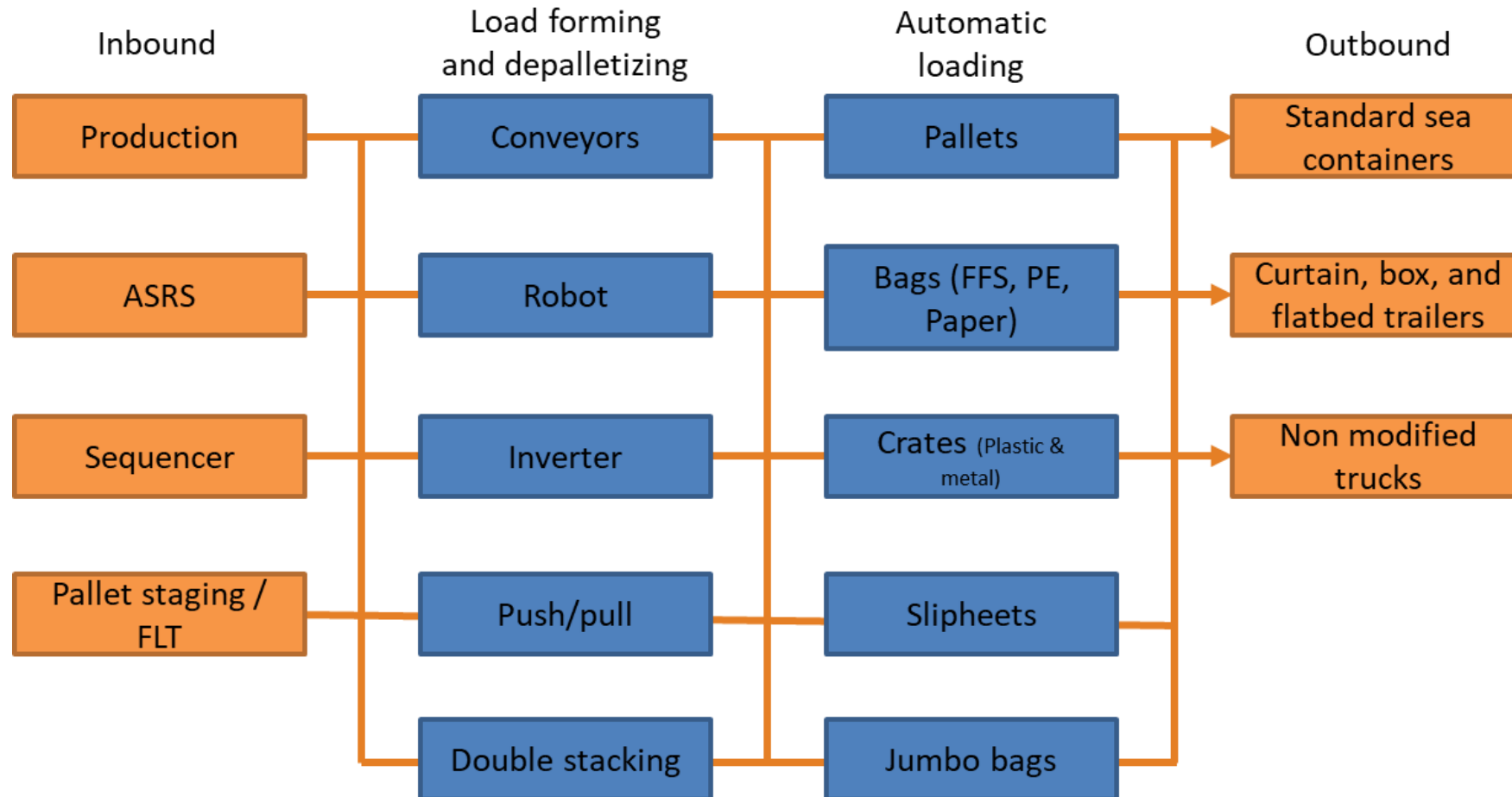
# LoadForming



# What is LoadForming?

- **Actiw LoadForming** optimizes your whole outbound material flow. The LoadForming solution integrates your existing warehouse with our automated loading equipment to increase your outbound capacity.
- LoadForming executes your load forming processes automatically on a load-by-load basis. It optimizes your outbound material flow by taking your production until loads and automatically preparing optimal truckloads, efficiently and accurately.
- In summary, LoadForming allows you to get most out from your existing loading dock area by automizing the steps which are conventionally done manually by forklift drivers or operators

# Connecting upstream with Automatic loading

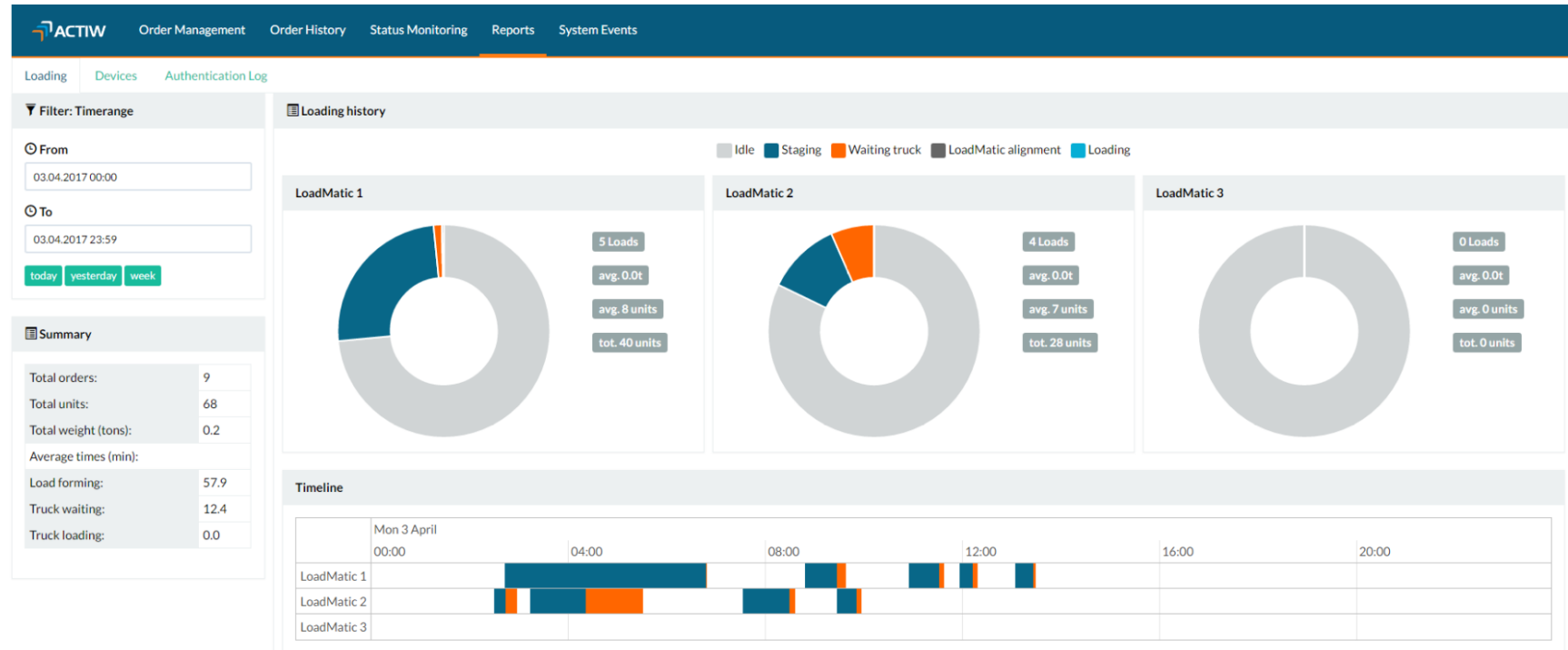




# LoadManager Software

# LoadManager Software

- Easy and clear reporting on outbound shipment KPI's
- Visual tracking of bottlenecks in the operation



# LoadManager Software

- Convenient user interface for operators to select the workflow of loading operations for the day
- Integration to ERP system, such as SAP with XML communication
- Shows order history and reporting

Order Ref	Delivery Date	LoadMatic	Order Status	Actions
<a href="#">45000969</a>	30.06.2011 13:55	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000973</a>	30.06.2011 17:33	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">80000235</a>	03.01.2012 16:09	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">80000236</a>	03.01.2012 16:50	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45001040</a>	15.02.2012 14:52	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000671</a>	12.01.2013 13:05	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000643</a>	12.01.2013 15:58	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000677</a>	14.01.2013 10:43	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000822</a>	10.10.2013 12:33	0	Pending Approval	<a href="#">Order Details</a>
<a href="#">45000823</a>	10.10.2013 12:40	0	Pending Approval	<a href="#">Order Details</a>

# LoadManager Software

- Device alarm history to oversee the equipment
- Data collection availability to foresee trends in faults
  - Preventive maintenance instead of reactive maintenance
- IoT ready
- Remote connection ready to allow remote support on the equipment
- Upcoming features:
  - Maintenance instructions
  - Maintenance logbook

The screenshot displays the ACTIW LoadManager Software interface. The top navigation bar includes 'ACTIW', 'Order Management', 'Order History', 'Status Monitoring', 'Reports', and 'System Events'. The main content area is titled 'Device History' and shows a table of records. The left sidebar contains filters for 'Timerange' and 'AlarmGroup', along with an 'Export' section with a 'Download Excel' button.

**Filter: Timerange**

From: 25.02.2017 00:00  
To: 25.02.2017 23:59  
today yesterday week

**Filter: AlarmGroup**

Emergency  
Safety  
**Transfer**  
Hardware  
Electrical  
Hydraulic  
Temperature

**Export**

Download Excel

**Device History**

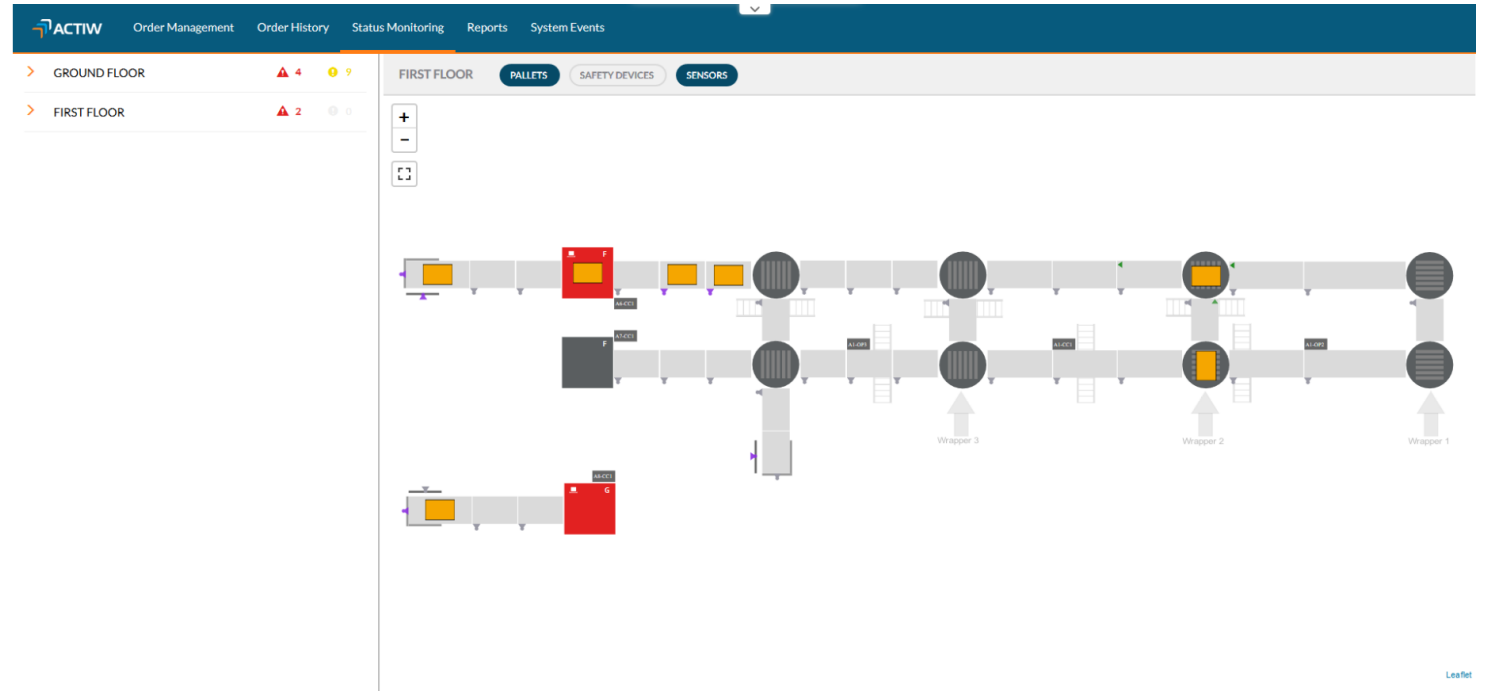
Results: 8  
< Prev 1 Next >

Start time	End time	Device	Type	Reason	Group
25.02.2017 00:15	25.02.2017 00:17	A2-CNV-1.1	Conveyor Turntable	ConveyorDriveHardError	Hardware
25.02.2017 00:55	25.02.2017 01:04	A1-CNV-1.1	Conveyor Turntable	UnloadingJ2Timeout	Transfer
25.02.2017 01:05	25.02.2017 01:05	A1-CNV-1.1	Conveyor Turntable	LoadingJ1Timeout	Transfer
25.02.2017 01:52	25.02.2017 06:20	A2-CNV-3.1	Conveyor Turntable	UnloadingJ2Timeout	Transfer
25.02.2017 04:37	25.02.2017 06:20	A1-CNV-3.1	Conveyor Turntable	UnloadingJ2Timeout	Transfer
25.02.2017 06:10	25.02.2017 06:10	A7-CNV-4.1	Conveyor	ConveyorDriveHardError	Hardware
25.02.2017 06:10	25.02.2017 06:10	A7-CNV-1.1	device.type.vtl	CnvConveyorDriveHardError	Hardware
25.02.2017 06:21	25.02.2017 06:22	A3-CNV-3.1	Conveyor Turntable	UnloadingJ2Timeout	Transfer



# LoadManager Software

- Easy mapping of full plant equipment and visualisation on equipment status
- Individual conveyor or E-Stop history can be seen by clicking on the conveyor on the screen

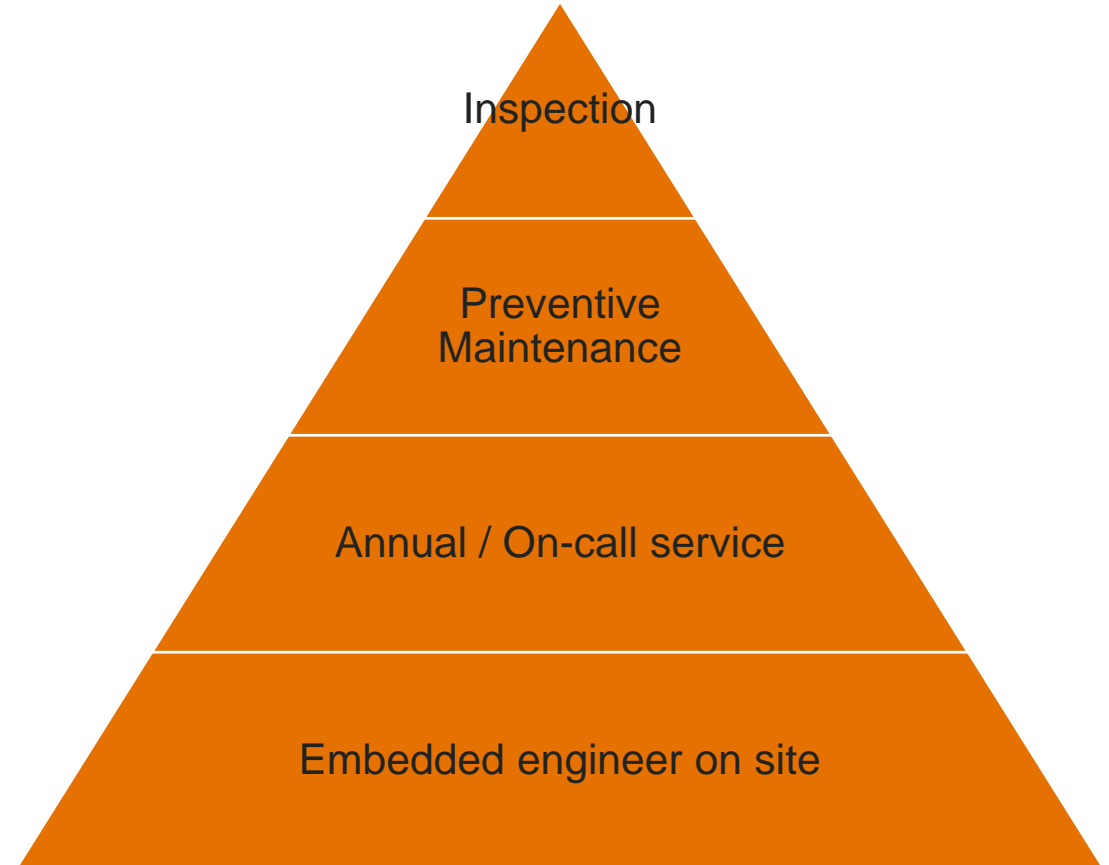


# Support



# Maintenance support - General

- Main levels – Scope unchanged
  - Inspection
  - Preventive maintenance
- Quoted separately – Scope changing
  - Annual / On-call service
  - Embedded engineer on site



# Service levels and trouble shooting

## LEVEL 1 – Customer Independent Support

- Customer solve issue with online instructions or manual
- Online troubleshooting

## LEVEL 2 - Customer contact phone/online support

- Remote access via VPN
- Online video support

## LEVEL 3 - Onsite support

- Actiw personnel handle corrective maintenance
- Actiw personnel will ensure availability by preventive maintenance

## LEVEL 4 - Continuous onsite support

- Actiw engineers on site 24/7
- Continuous monitoring and maintenance



**Lighten the load**

**Solve. Optimize. Automate.**

Actiw Oy

Voimapolku 2, FI-76850 Naarajärvi

Finland