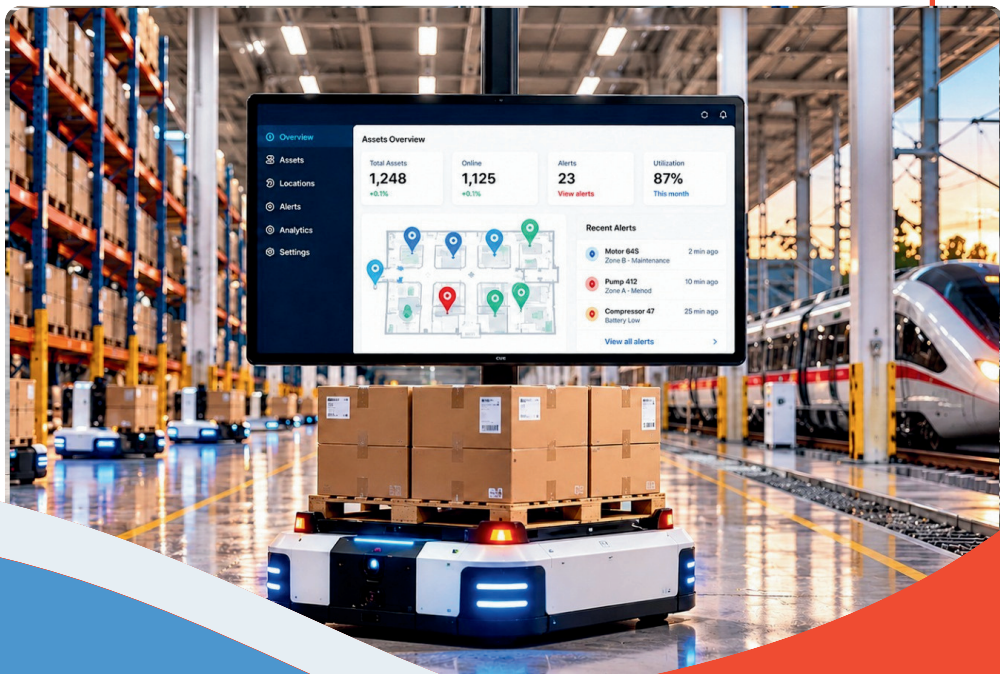




TECASER SARL
YOUR SUCCESS BEYOND BORDERS

INDUSTRY

CATALOGUE



Opportunity Analysis

Identifying Industrial Flows Suitable for Automation

Does your production process involve repetitive material movements between component storage areas, machines and assembly stations? A material flow analysis helps identify transport operations that could be automated using AGVs/AMRs.

Material Movements

Origins, destinations and mission frequency.

Production Constraints

Loads, containers, operating hours and available space.

Feasibility Criteria

Distances, cycle times and pickup and drop-off locations.



Industrial Flows

Transport Flows & Production Flows

In industrial facilities, AGVs/AMRs transport materials and components between different areas and manufacturing operations. They connect production stages without performing the manufacturing processes themselves.



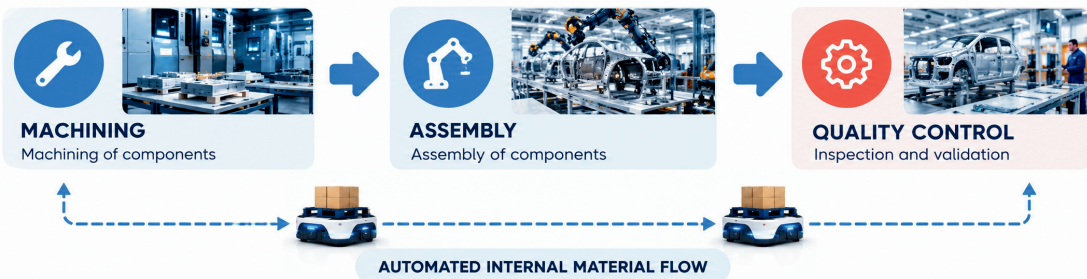
Transport Flows

AGVs/AMRs automate material transport between different areas of a manufacturing facility. They move components from storage areas to production stations, then transport finished products to shipping areas. These automated movements help streamline material flows and optimize logistics operations.



Production Flows

AGVs/AMRs automate the transfer of components between production stations. They transport parts from machining to assembly and then to quality control, following the manufacturing workflow. This automation facilitates material movement between workstations and helps streamline production operations.



Applications

Practical Applications at the Workstation

Depending on your workshop layout, AGVs/AMRs can perform specific tasks close to operators. Each application is tailored to the components being handled and workstation requirements.

Workstation Replenishment

Delivery of ready-to-use bins and kits.

Machine Servicing

Delivery and collection of parts.

Empty Container Return

Collection of empty containers to free up workspace.

AGV/AMR Solutions

Choosing the Right Vehicle for Each Load

Selecting the right solution depends on the type of product being transported, load weight, pickup height and traffic conditions. TECASER supports the selection and integration of equipment tailored to your operational needs.



Pallets & Heavy Loads

Forklift AGVs or vehicles designed for heavy-load handling.

Bins & Small Parts

AMRs equipped with platforms or load transfer mechanisms.

Conveyor Transfers

AGVs/AMRs equipped with transfer mechanisms compatible with conveyor interfaces.

Process Integration

Integrating AGVs/AMRs into Your Workshop

To integrate mobile transport into production, clear operating rules must be established: mission triggering, load pickup conditions, delivery confirmation and priority management.

Mission Triggering

- At scheduled times, on demand or through a signal.

Safe Pickup & Drop-off

- Load carrier compatibility and transfer confirmation.

Priorities & Availability

- Mission scheduling and waiting time management.



Industrial Safety

Integrating Mobile Robotics into Your Operating Environment

In workshops shared by operators and other equipment, automated movements require careful assessment. Safety must be considered from the initial definition of routes and operating zones.



Mixed Traffic

- Identification of intersections and high-traffic areas.

Obstacles & Environment

- Assessment of available space, access points and actual operating conditions.

Risk Assessment

- Evaluation of EHS requirements and preventive measures.

Fleet Sizing & ROI

Evaluating Solutions Based on Operational Data

How many vehicles are required to handle the expected transport missions ?

Using its fleet sizing tools, TECASER determines the required number of AGVs/AMRs based on load characteristics, travel distances, throughput requirements, transfer times, target availability and other operational parameters, ensuring a fleet tailored to each industrial facility.



Transport Capacity

Number of missions, transport volumes and load weights.

Economic Assessment

Investment, operating costs and potential benefits.

Fleet Size

Estimation of vehicle requirements based on cycle times and material flows.

Project Assessment

A Structured, Step-by-Step Approach

TECASER supports industrial AGV/AMR projects through five stages, from identifying material flows to validating the proposed solution.

01 IDENTIFY

Identify transport and production flows suitable for automation.

02 SIZE

Assess loads, throughput requirements, cycle times and required fleet size.

03 SELECT

Select AGVs/AMRs suited to the components, workstations and industrial equipment.

04 INTEGRATE

Coordinate missions, pickup and drop-off operations, and priorities while ensuring safety.

05 VALIDATE

Verify feasibility, expected performance and acceptance criteria.



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