# BALYO enriches its technological platform with high value-added functionalities

- **Latest generation of 3D vision to manage the diversity of pallets**
- **Digitalization of user experience to empower our customers on mobile robotics**
- **Implementation of a monitoring tool for the operational performance of robots**
- **Autonomous hooking and unhooking of trailers for greater robot autonomy**

**Ivry-sur-Seine, France, December 3, 2020, 7.00 pm CET – BALYO (FR0013258399, Ticker: BALYO, eligible for PEA-PME savings schemes),** a technological leader in the design and development of innovative robotic solutions for material handling trucks, announces the launch of new software tools to improve the performance of its robots and offer an ever simpler user experience.

**Pascal Rialland, CEO of BALYO,** comments: "*Developing functionalities with high added value is BALYO's DNA. Our customers expect from us solutions that simplify and optimize their logistics operations. Version 4.12 of our software platform perfectly meets these needs and is in line with the execution of our R&D roadmap which is focused on these objectives: reducing our customers' TCO*[1], *simplifying the installation and use of our robots and constantly improving the operational performance of our solutions. I will have the pleasure of regularly sharing the progress of our technological developments.*"

BALYO robots and technologies are operated via a software platform which regular evolutions improve their performance and simplify the user experience. Over the last few months, BALYO has, amongst others, developed high value-added functionalities:

- **Latest generation of 3D vision algorithm:** available on the entire range of high heights storage robots Driven by BALYO, this functionality enables the validation of the availability of rack locations as well as the conformity of the load in relation to previously defined standards. In addition, these algorithms reference new pallet formats without hardware modification, which is particularly appreciated by logistics players given the diversity of existing formats. As an option, these 3D perception bricks detect and control the outlines and load heights from the moment of pick-up. This new

[1] TCO, Total Cost of Ownership, is an assessment of the total cost of ownership. It takes into account all the direct and indirect costs generated by the ownership and use of a system: hardware, software, consumption, premises, personnel, training, support, maintenance, security, etc. It also includes all the direct and indirect costs generated by the ownership and use of a system.

functionality eliminates the need for an intermediate pallet proportion control system, reducing the TCO for manufacturers and logisticians;

- **Increased digitalization and strengthened customer autonomy for mobile robotics:** after having developed a range of standard mobile robots offering the widest application coverage on the market, BALYO is now focusing its efforts and know-how on simplifying the installation and use tools of its robots. The objective is to enable customers and partners to install and manage the robots themselves via more intuitive applications. This digitalization process will eventually cover all stages, from the idea and the formalization of a project to the installation of the system and then the optimization of its use over the long term. In order to do so, sales procedures and installation have been standardized across the entire range of robots since mid-2020, capitalizing on the experience of 200 applications and customers in more than 30 countries;

- **Platform for monitoring the operational performance of robots:** for all systems installed recently, BALYO provides more than 20 configurable reports evaluating key indicators (system availability and quality, operational or technical errors, rates, etc.) in order to optimize the efficiency of the system at each stage of the project. Genuine decision-making tool and support for operational excellency, in line with industrial evaluation standards (VDI2410-5) and an OEE[2] approach, this tool gives customers a real-time view of the performance of their installation, on each flow or robot, in complete transparency;

- **Autonomous hooking and unhooking of trailers:** for greater autonomy of the logistics robot-trains in charge of supplying production lines to optimize productivity, BALYO has developed the "auto-hitch" option that allows the robot to be coupled to a trailer and uncoupled from it autonomously and safely. This application, launched for customers in the automotive sector, covers more than 90% of trailers types used in the United States, for example.

In 2021, BALYO will pursue the development of its software platform, focusing in particular its developments on improving the performance of its systems, with the objective of making robots and their installation ever-simpler and more productive.

[2] The OEE, Overall Equipment Effectiveness, or OEE, is an indicator of the productivity of industrial systems.

## ABOUT BALYO

Balyo transforms standard forklift trucks into standalone intelligent robots thanks to its breakthrough proprietary Driven by Balyo™ technology. The geoguidance navigation system developed by Balyo allows vehicles equipped with the system to locate their position and navigate autonomously inside buildings. Within the automated handling vehicle market, Balyo has entered into two strategic agreements with Kion Group AG (Linde Material Handling's parent company) and Hyster-Yale Group, two major operators in the material handling sector. Balyo is present in three major geographic regions (Americas, Europe and 3/3 Asia-Pacific). Its sales revenue reached €20.4 million in 2019.
For more information, please visit our website at www.balyo.com.



## CONTACTS

**BALYO**
Frank Chuffart
investors@balyo.com

**NewCap**
Financial Communication and Investor Relations
Thomas Grojean / Louis-Victor Delouvrier
Tel: +33 1 44 71 98 53
balyo@newcap.eu