
BALYO

AUTONOMOUS VEHICLES
FOR SMART INDUSTRY

March 2019



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This presentation does not constitute an offer to sell, or a solicitation of an offer to buy, BALYO shares.

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Stanislas Piot
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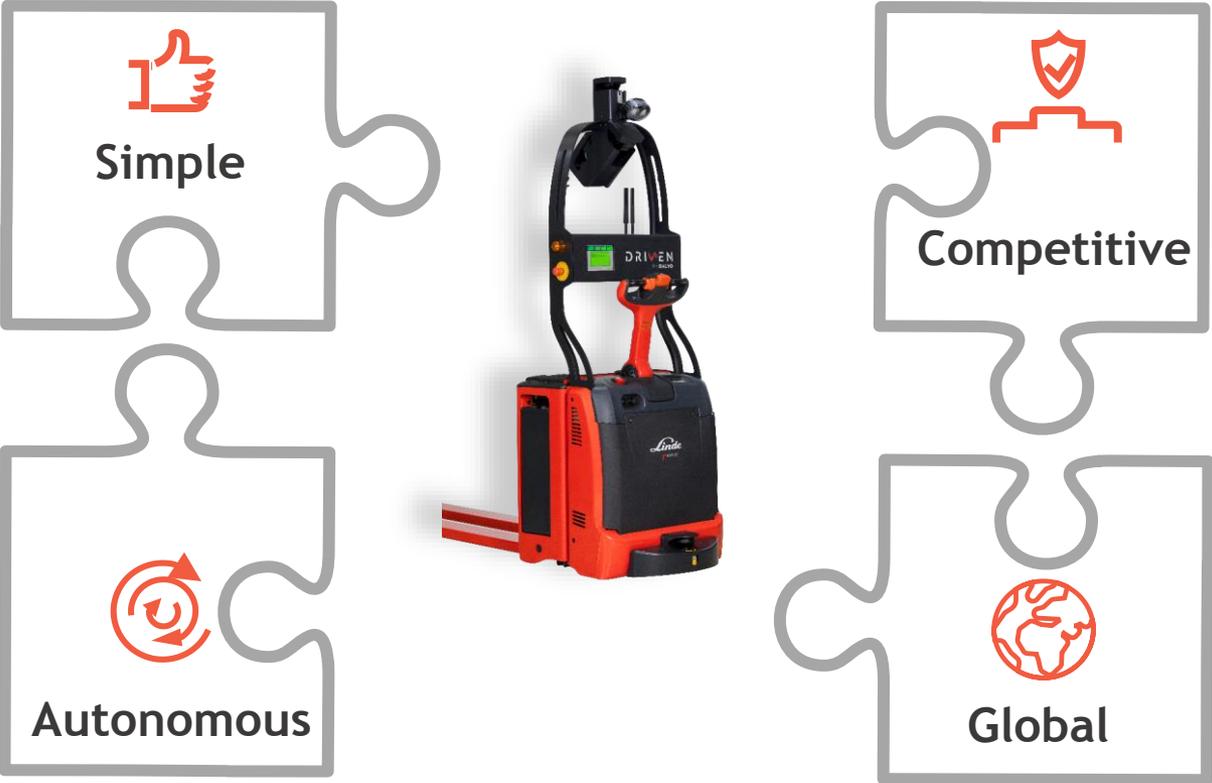
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Pascal RIALLAND
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Pepsi Co, Homesun,
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BALYO: A smart and global robotic solution, easy to integrate



Two strategic alliances for a global reach



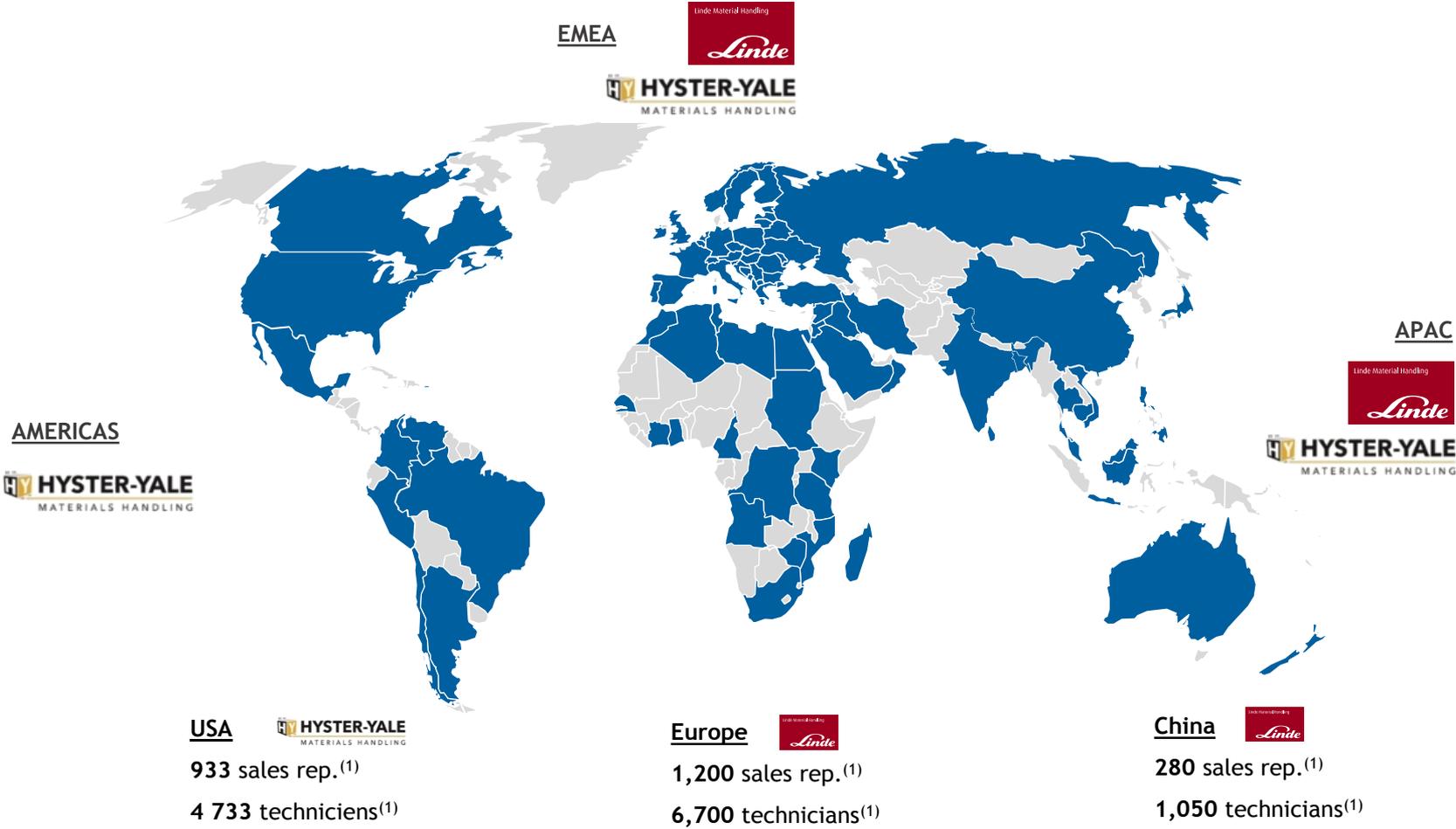
No.2 worldwide
No.1 in Europe
No.3 in Asia
More than 33,000 employees
€8.0 billion revenue in 2018



No.5 worldwide
No.2 in the United States
More than 6,500 employees
€3.2 billion revenue in 2018

Global Partnership

70% of worldwide market addressable through Linde MH and Hyster-Yale Group



(1) Note : Linde MH and Hyster-Yale Group

Win/Win partnership



- ▶ Response to customer demand
- ▶ Development of turnkey robotics solutions
- ▶ Access to a new growth driver
- ▶ Networks quick adoption
- ▶ Steady 1st level maintenance

Value sharing



- ▶ Access to global sales and maintenance networks
- ▶ Access to material handling expertise and a range of standard products
- ▶ Ease to international deployment with limited investments
- ▶ Long-term global agreements with our partners

Major commercial agreement with Amazon



amazon

- ▶ Potential entry of AMAZON in BALYO's capital up to 29%
- ▶ Depending on the level of orders by AMAZON up to EUR 300m
- ▶ Strong expectations from Amazon towards' BALYO's technology

**A 7 years
commercial
agreement**



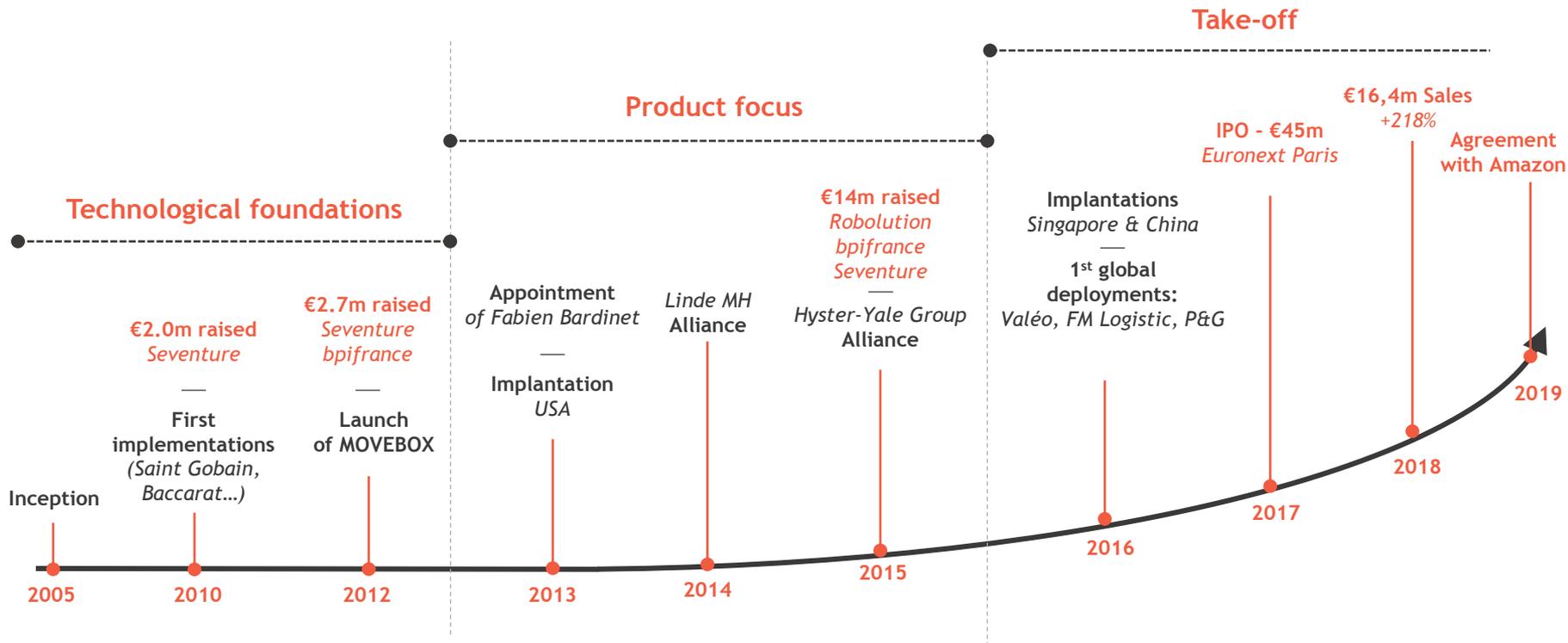
BALYO

- ▶ Confirmation of the added value of BALYO's robotic solutions
- ▶ A decisive step in BALYO's development to boost the deployment of its solutions
- ▶ A unique agreement that provides strong visibility



Agreement supported by **BALYO's industrial partners** and **major shareholders**

A pioneer taking off



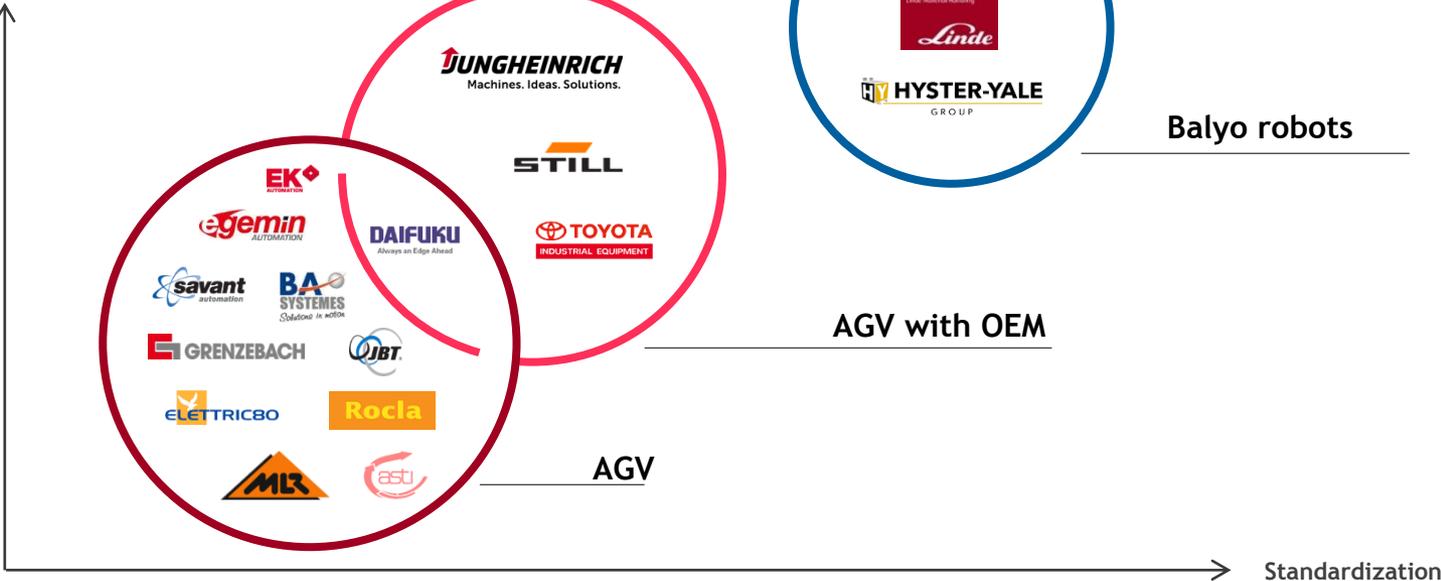
MARKET & COMPETITION

Logistics "robolution" of industry 4.0

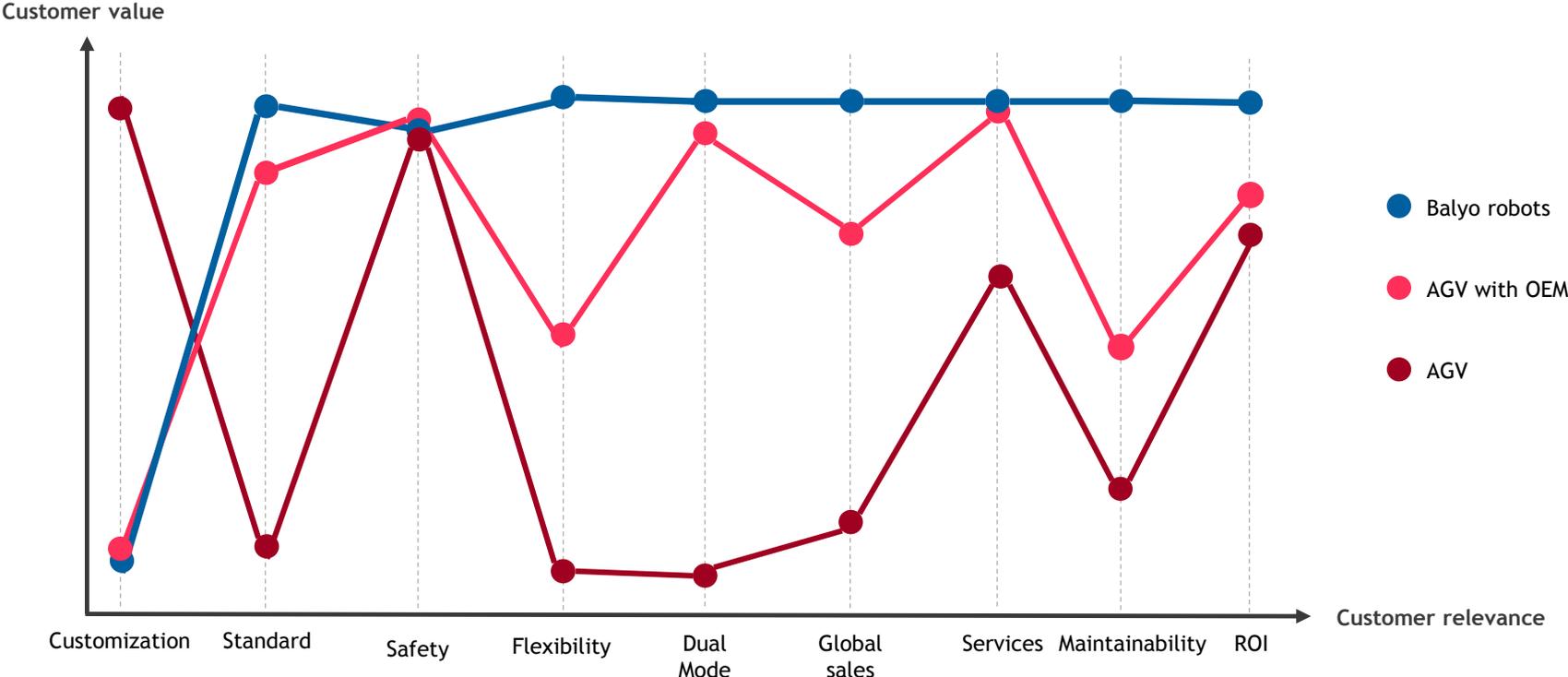


Competition: compelling advantages

Commercial and technical
scalability/maintainability



Positioning: compelling advantages



OUR STRENGTHS

*Technological response
to manufacturers' constraints*



BALYO's autonomous vehicle

Navigation & traffic management

- ▲ SLAM
- ▲ Geo-navigation
- ▲ Logistic process optimization
- ▲ Flexible
- ▲ Evolutive

Robot integration

- ▲ Calculator integration in standard trucks
- ▲ Application-specific equipment
- ▲ Standard interface between Balyo technology and standard truck
- ▲ Dual mode: manual use and auto

Customers' system integration

- ▲ Connection to ERP/WMS
- ▲ Interface with customer environment Cobotique
- ▲ Cobotics
- ▲ Safety assessment
- ▲ Customer training

30,000

man-days
invested in R&D

25% revenues

allocated to R&D in 2018



BALYO has eliminated technological constraints in terms of **mobility, maintainability and scalability**

Serving global clients

More than 30 clients on 3 continents including:



Lenze



BERRY
PLASTICS



BASF

3 major references



\$80 billion revenue
110,000 employees
300 locations
150 manufacturing sites
150 distribution centers
8,500 material handling vehicles fleet

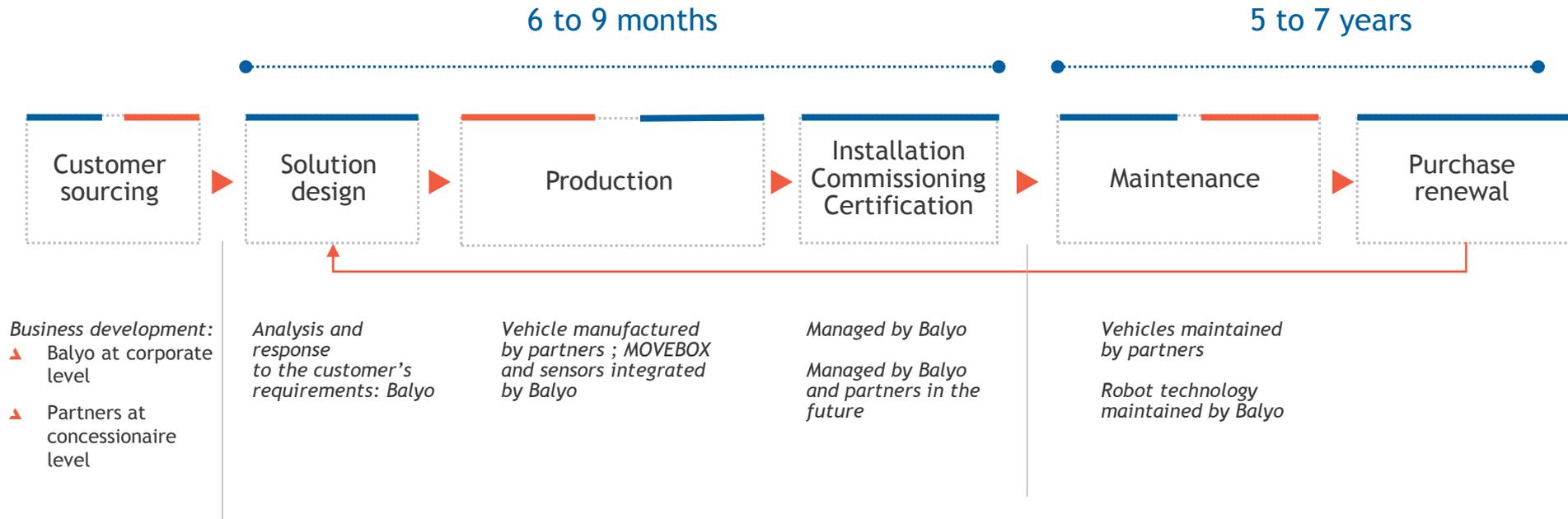


\$1.1 billion revenue
20 000 employees
3,300,000 m² of warehouse worldwide
4,200 material handling vehicles fleet
33% of warehouse area operated in France
28 distribution centers in France



\$51 billion revenue
120,000 employees
38 industrial sites

An integrated business model



An established industrial organization



Current production capacity of **1,000 robots/year**

Potential production capacity: several thousand robots/year, using our partners' production capacity

A model driven by a structured team



Fabien BARDINET
Chairman and CEO
*Credigen Bank, Sofinco,
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Pascal RIALLAND
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*Pepsi Co, Homesun,
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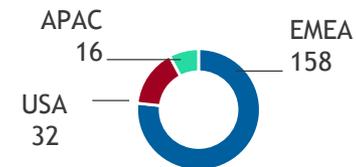


Alec LAFOURCADE-JUMEMBO
CMO
*DxO
Aldebaran Robotics*



206
employees in 5 countries⁽¹⁾

Workforce breakdown by Region
(% of total workforce as of 31.12.18)



Note : (1) as of December 31, 2018

FINANCIAL PERFORMANCE

A scalable business model



Multiple sources of revenue

6 to 9 months

5 to 7 years

3 payments (advance, truck delivery, system installation)

Recurring revenue

Balyo's product sales: 70%

Balyo's software, services & maintenance sales: 30%

Sale of robots
(+ embedded software)

50% Partners
50% Balyo

+

Sale of hardware accessories

100% Balyo

+

Sale of software
("Robot manager")

100% Balyo

+

System installation

100% Balyo

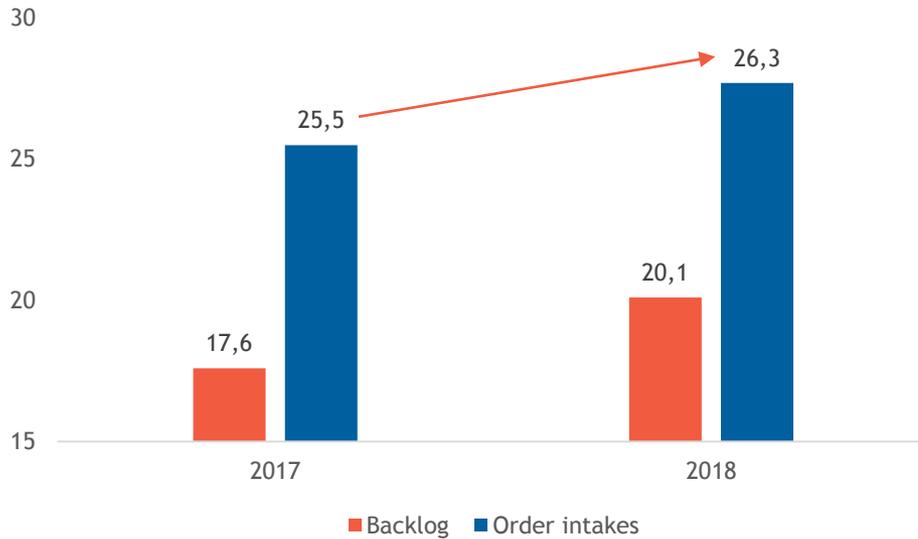
+

Maintenance

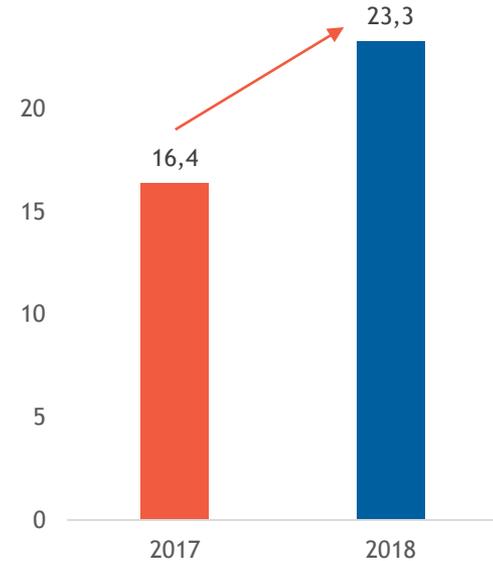
Hardware: Partners
Robots: Balyo

Further sustained growth in 2018

+ Backlog & Order intakes (€m)



+ Revenue (€m)



42% increase in sales revenue for 2018: €23.3 million

2018 full-year results

IFRS (€k)	31/12/17	31/12/18
Revenue	16,409	23,261
COGS	-10,973	-16,977
Gross margin	5,436	6,285
Margin (%)	33.1%	27.0%
R&D	-5,567	-5,741
Sales & Marketing	-4,049	-4,638
G&A	-4,828	-6,796
Share-based payment	-1,094	-1,246
Operating profit	-10,102	-12,137
Financial result	- 525	244
Net result	-10,627	-11,893

1

Revenue in 2018: +42% increase compared to 2017, illustrating the dynamic commercial trend

2

The decline in gross margin is due to:

- Difficulties encountered in deploying solutions on site
 - Installation times were higher than expected
- Increase in gross margin has been observed in H2 2018

3

Increase in R&D, Sales & Marketing and G&A expenses are due to:

- The launching of new structuring projects
- New recruitments
- New Head office in Ivry

4

IFRS Accounting treatment of Amazon Warrants:

- Considered as a selling price discount
- IFRS2 expenses recorded in parallel with revenue recognition
- Expenses recorded on a quarterly basis

Cash Flow analysis as of December 31, 2018

IFRS (€k)	31/12/17	31/12/18
Cash used for operating activities	(12,073)	(14,483)
Cash used for investing activities	(2,405)	(1,141)
Cash provided for financing activities	41,575	(143)
Change in cash	27,046	(15,752)
Cash & cash equivalents	30,680	14,928

1

Cash used for operating activities increased:

- Increase of net losses (10 003 k€)
- Increase of Working capital need (4,462k€)

2

Capex mainly related to the production of prototypes/software and new Head Office in Ivry sur Seine

Balance sheet as of December 31, 2018

IFRS (€k)	31/12/2017	31/12/18
Non-current assets	3,737	4,050
Inventories	2,822	3,181
Trade accounts receivables	13,029	19,279
Other receivables	3,700	4,507
Cash & cash equivalents	30,680	14,963
Total assets	53,969	45,980

Shareholders' equity	32,626	22,165
Financial debt (long term)	1,414	784
Non-current liabilities	1,560	1,025
Trade notes and accounts payables	9,231	10,942
Tax and employee-related payables	2,039	2,391
Other current liabilities	7,457	8,256
Total liabilities	53,969	45,980

Financial debt (€k)	31/12/17	31/12/18
Bank loans		35
Bonds		
Grants and repayable advances	2,471	1,951
Total gross debt	2,471	1,986
Total net debt	- 28,209	- 12,978

STRATEGY

*Support orders exponential growth
and accelerate business transformation*

1 – Maintain technological leadership



Intelligence

+ Innovation

- ▲ FLYBOX
- ▲ Obstacle avoidance
- ▲ Outdoor navigation
- ▲ Superbrain

+ Improvement

- ▲ Autonomous Path finding
- ▲ 3D Pallet detection
- ▲ Load counting
- ▲ Opportunity charging
- ▲ Circuit modification feature
- ▲ 360° Safety
- ▲ Transport double-pallet
- ▲ Fail over
- ▲ Station & flows management

+ Technological independence

- ▲ New calculator
- ▲ Omni Safety
- ▲ Virtual I/O
- ▲ LTO battery

+ Big Data

- ▲ Customer reporting
- ▲ Statistics
- ▲ Feedback log



Simplification

+ R&D

- ▲ OS 4.0

+ Operations

- ▲ Missions editor
- ▲ Pref editor
- ▲ Circuit editor
- ▲ Rack editor
- ▲ MAPBOX

+ Marketing

- ▲ Customer Journey Automation (e-learning, e-budget)

+ Service

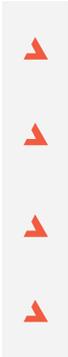
- ▲ E-Ticketing
- ▲ Hotline 24/7

2- Business expansion



Our sales targets
Tier 1, in 4 sectors and 3 geographic areas

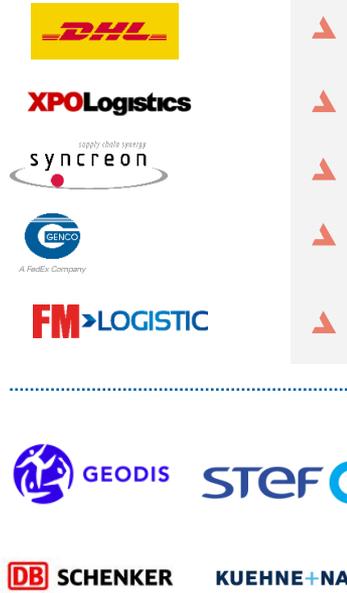
AUTOMOTIVE



RETAIL



LOGISTICS



CONSUMER GOODS



▲ Signed and/or delivered projects

Confirmation of the profitability target and sales objectives

2022



**Revenue
> €200m**

Long term

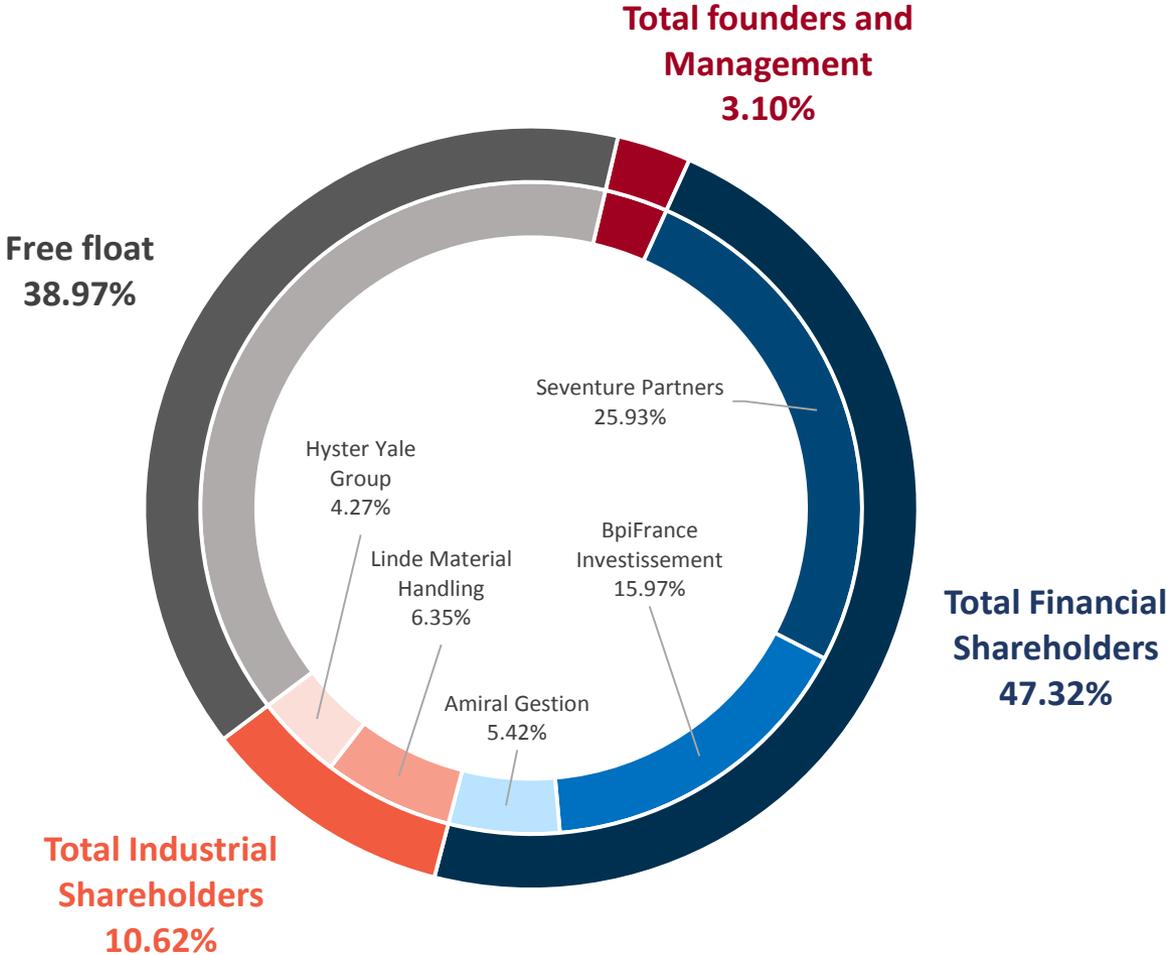


**Long term
Operating profit
~20%**

APPENDICES

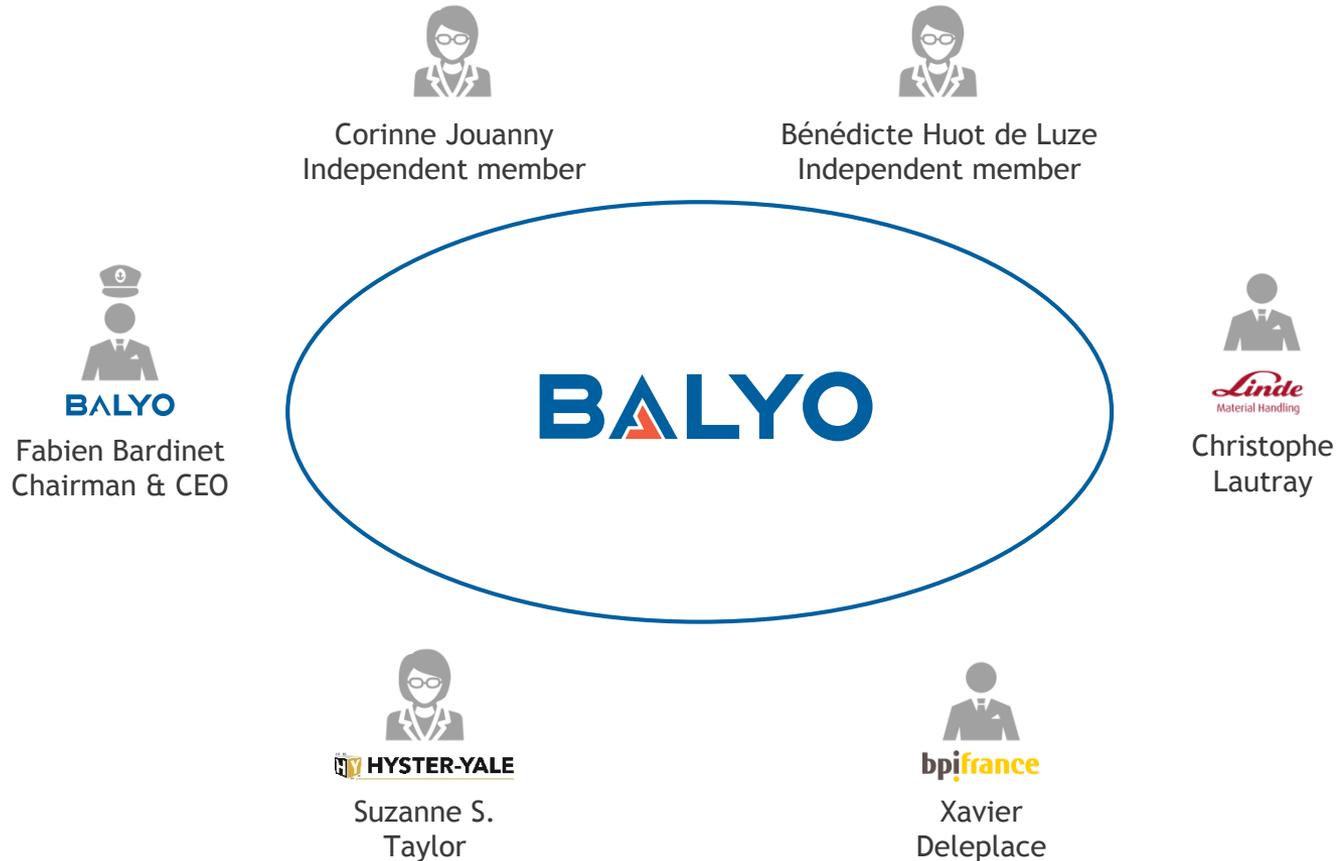


Shareholding structure 31 /12/2018 (excluding dilution)



Board of directors

A board that reflects the shareholding structure and complies with Middlednext Corporate Governance Code



Material handling, a major challenge for industry



More than 5 million

Material handling vehicles deployed around the world

€33 billion

Annual global expenditures on material handling

More than 80%

Of handling vehicles operating costs related to driver costs

€200 billion

Annual global expenditures on pallet handling

\$380 million

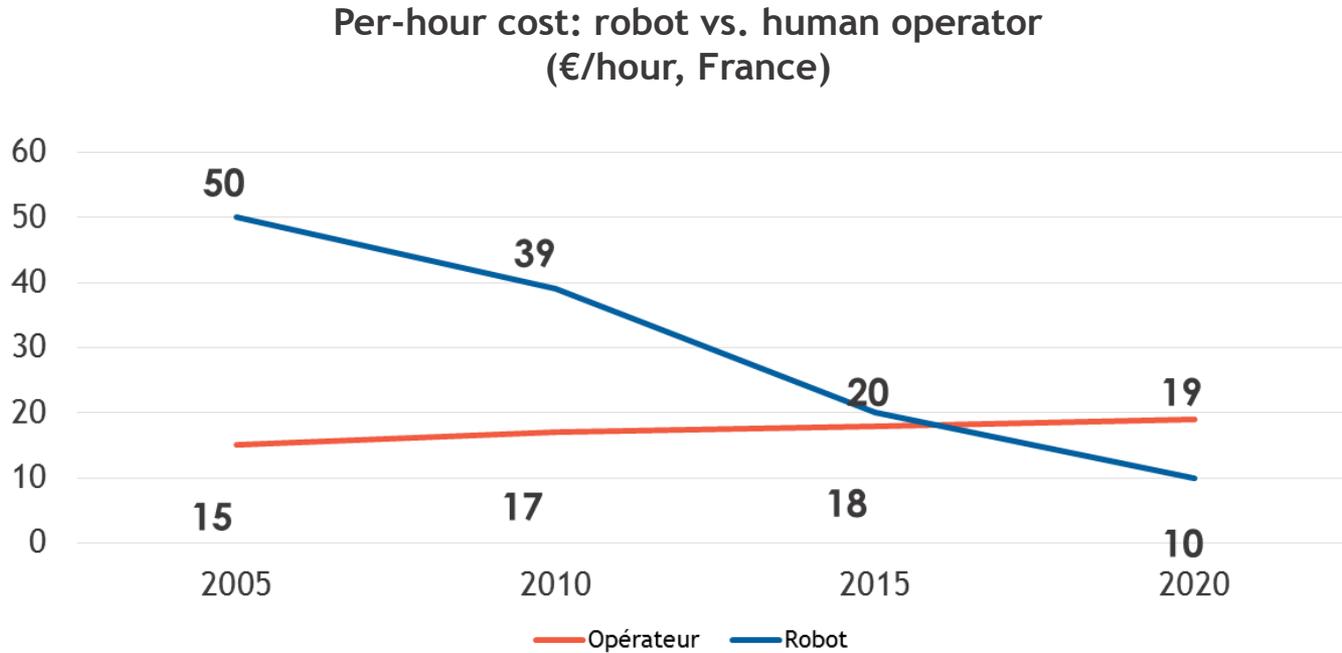
Estimated annual expenditures on material handling of a major client

Company estimates

Our response



Robotization: a tangible economic impact for the industry

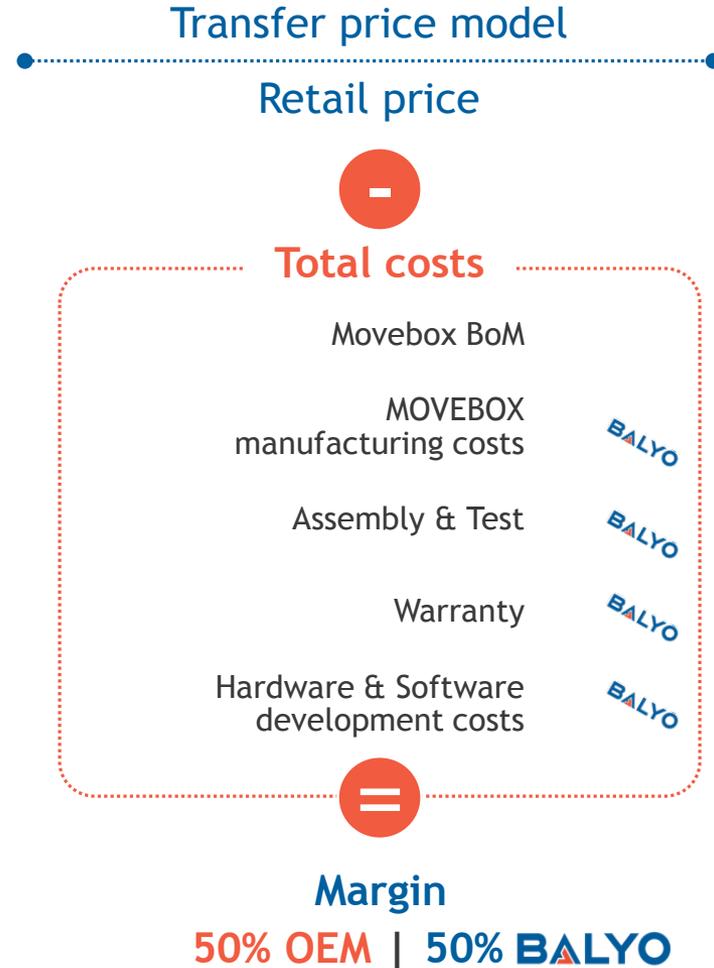


Source : IFR, INSEE, Eurostat - Roland Berger Of Robots and Men-in logistics Towards a confident vision of logistics in 2025

Balanced margin sharing mechanism



Robots sales
including embedded
software



Note (1): For the sake of clarity, Balyo transfer price to OEM (=unit revenue) is equal to the sum of BALYO costs listed above and BALYO margin (corresponding to 50% of total margin)

BALYO: a disruptive solution

Two coexisting approaches

AUTOMATED GUIDED VEHICLES (AGV)

Traditional automatic vehicles

- ▲ Custom-built vehicles
- ▲ Navigation requiring additional infrastructure
- ▲ High costs and long-time integration
- ▲ Non-evolutive solution
- ▲ High maintenance

Niche market
Low volumes
Low gross margin

ROBOTICS

Autonomous vehicles

- ▲ Standard vehicles
- ▲ Geo-navigation
- ▲ Quick integration with limited resources
- ▲ Flexibility
- ▲ Simple, global maintenance

Mass market
Scalable solution
High gross margin



Market potential

“ Autonomous driving is the future! The combination of technology innovation, competitive forces, benefits and regulations are fueling this transformation.”

*Roland Berger study - Autonomous driving
November 2014*

Global market for material handling vehicles in 2016

●-----● **739 841 units/year**

Market conversion assumption	10%	15%	20%
Robotization rate	1.5	1.5	1.5
Number of robotic vehicles sold/year	110,976	166,464	221,952
Global market for robotic material handling vehicles ⁽¹⁾	€6.3bn	€9.5bn	€12.7bn

Balyo - OEM market share

●-----● **20%**

Note : (1) Sur la base d'un prix de vente moyen de 57 K€

3 growth factors

1



Well defined and controlled regulatory framework

2



Productivity gain on cost saving as a perpetual goal for industrials

3



Market led by global industrials /no turn-back syndrome

3- Acquisitions

