



**Business Case  
MDS – France**





## MDS – France's leading book distribution company – is using Scallog's mobile robotics solutions to optimise its client service.



In a bid to meet ever-rising demand at its Dourdan distribution centre, **MDS has set itself the target of speeding up delivery for low-volume heterogeneous orders – but without increasing operating costs or compromising on quality.**

To make the **whole process smoother, to increase reliability and to speed up low-turnover orders at the end of its automated line, MDS has chosen a decidedly modular,**

**flexible and scalable technology: Scallog's Goods-to-Man solution.**

Back in spring 2019, more than 20 of Scallog's **BOBY robots were brought in to move 250 mobile shelf units over to three picking and resupply stations.** The whole deployment phase was completed quickly and efficiently.

Today, more than 55 robots, 555 mobile shelf units and eight stations are in use.

Using robotics as incontrovertibly increased efficiency: resupply operations now take less time and productivity (when it comes to order preparation) has been increased by a factor of 2.5 – more than 200 lines can now be processed per hour!





## Dourdan – an automated distribution hub in keeping with MDS's aim

MDS is owned by the Média-Participations Group and is a major player in the book distribution sector. Well-known across the press, audiovisual and publishing sectors, the Média-Participations Group recently merged with La Matinière-Le Seuil.

With sales of more than €500 million, it is France's third largest publishing group. MDS was founded in 1988 and over the years has expanded its operations on the publishing market.

It distributes everything from comics to literature and tourist guides, together with books produced by its own group and external publishers (which make up a third of its business).

**IT and financial services** (generating statistics, managing invoicing and managing payments).

As a distribution centre, **it is the only one of its kind: it is used for everything to do with distributing publishers' books** – be they external publishers, or ones that are part of the MDS group.

The company currently has more than 15,000 clients – everything from bookstores, supermarkets and e-commerce sites (such as Amazon and Fnac.com) – to major cultural centres and tourist sites.

To each one of these clients, it dispatches books produced by its own group, as well as by external publishers. According to Mr **Delrue**, a member of MDS' executive committee:

**55** Bobby Robots

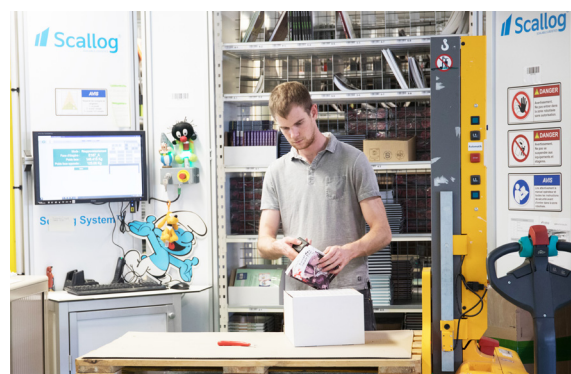
**555** Shelves Mobiles 

**8** Stations 

*“ As well as logistics, what we do involves managing costs and optimising performance at all stages so as to get the best value of our stock and our order preparations, in an extremely competitive environment ”*

The MDS distribution centre in Dourdan covers some 35,000 m<sup>2</sup> and has 32 km of shelf storage.

In 2018, it was used to **store some 50,000 million books and dispatch more than 500,000 orders** equivalent to 12 million lines. It is used for storage, preparing orders and putting together point-of-sale advertising, as well as





## Goods to Man – equal to current book distribution challenges

In a bid to optimise operating costs and maximise productivity, back in 2010 MDS opted for a Goods to Man solution, whereby products are conveyed to an operative. The company is now acquiring an automated storage system that involves conveying and AGV.

**60%**   
*mechanized activity*

To optimise order preparation costs while at the same time increasing productivity and reliability, more than 60% of what MDS does is being mechanised.

This mechanisation renders the work that operatives have to do less arduous, as well as reducing the number of journeys that they have to make.

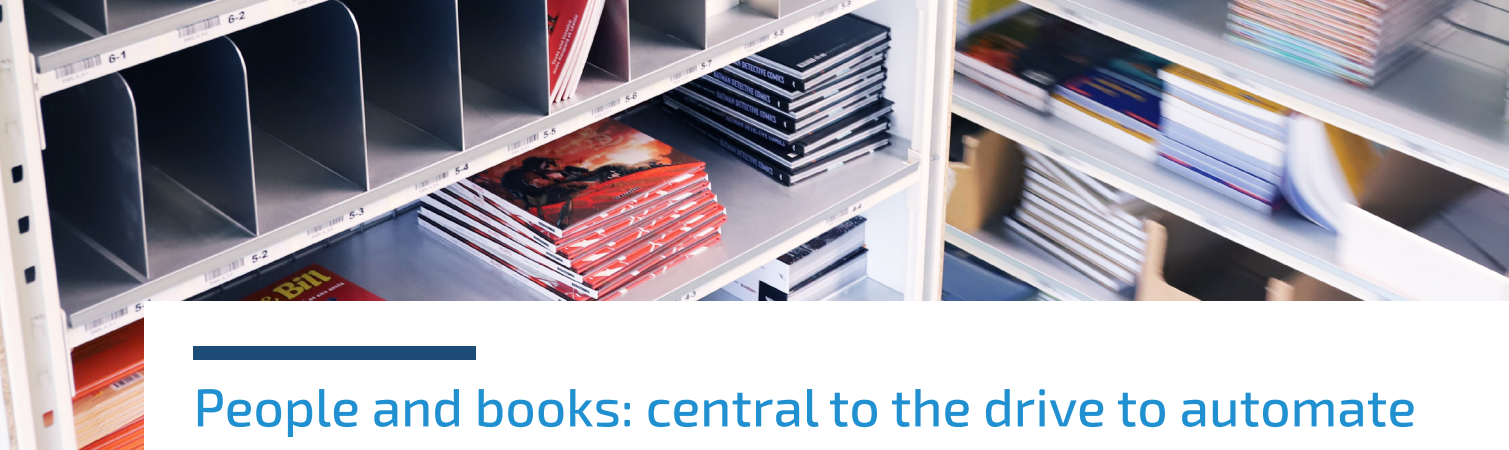
Indeed, without any kind of robotic assistance, a typical operative walks an average of 10 km per day.

Nowadays, BtoB clients have increasingly high requirements in terms of availability and product delivery speeds.

Mr **DEL RUE** said:

**“** To optimise order preparation costs while at the same time increasing productivity and reliability, more than 60% of what MDS does is being mechanised. This mechanisation renders the work that operatives have to do less arduous, as well as reducing the number of journeys that they have to make. Indeed, without any kind of robotic assistants, a typical operative walks an average of 10 km per day.**”**





## People and books: central to the drive to automate low-turnover order preparation

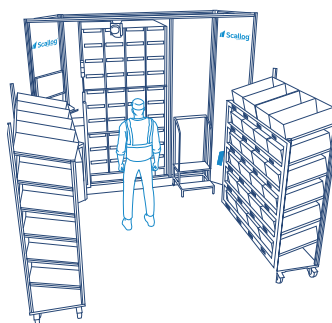
To maximise operational performance, MDS wants to go one step further in automating operations on the mezzanine floor, which is where low-turnover commands are processed.

The company is keen to ensure scalability and to integrate the new solution into the existing environment – which has a low ceiling and needs to interface with the Savoye conveyor.

Depending on the type of product (high- and medium-turnover product), the parcels move along various mechanised lines and finish their journey alongside low-turnover products.

At the end of the chain, operatives add these products to finalise order preparation before dispatching them.

**Scallog's technology based proposal** combines robots, mobile shelf units, ergonomically designed workstations and software. What's more, it is all French made.



**What quickly set the solution apart from others was its agile nature, its scalability and its compatibility** with MDS's other workflow automation systems (WMS, WCS).

Once it had been officially selected in September 2018, the project involved four key stages:

- First of all, process definition and picking and resupply in connection with the workflow automation system,
- Secondly, creation of the software interfaces using Scallog's expertise in this area,
- Then installation of stations, of the robot pathways and the mobile shelf units.
- Finally, creation of the surface area, installation of equipment, interfacing of the solutions and implementation of the processes. The whole

Goods to Man project was implemented in just a few weeks in March 2019.

**MDS's Head of Operations** added:

*“ We decided to split this project into several phases so we could focus on it outside of the September to December period, which is when we are at our busiest. That way, we eliminated any impact on our business continuity.”*

Mr **DELRUE** said:

*“ Based on our experience in automation, we know that the success of this type of project is contingent on: earmarking appropriate means & resources, choosing the right moment, scaling the project appropriately and getting the support of a responsive team, such as Scallog's ”*

**The Scallog solution has now been in operation since May 2019** and comprises **55 robots, 555 mobile shelf units and eight stations** – six for order preparation and two for resupply.

**The Head of Operations** said to us:

*“ In the sector in which we operate, items can be heavy and most importantly... fragile. Picking speeds need to be adapted accordingly. Furthermore, to ensure optimum working conditions, we pay particular attention to striking a balance between productivity... and the mental stresses to which our operatives are exposed ”*





## Initial gains – from increased operational performance to fewer arduous tasks.

In concrete terms, order parcels move along a conveyor through different zones. They then arrive on the Scallog mezzanine floor for low-turnover products which is where preparation is finalised before dispatch.



In the secure storage area, high-performance, autonomous **BOBY robots** move shelf units around via a floor guidance system. These shelf units are modular and can be reconfigured depending on product type.

They carry books, maps and comics over to **workstations or special preparation areas**.

These ergonomically designed and efficient workstations all feature equipment designed to maximise performance, as well as reduce the arduous nature of the tasks carried out at them.

Connected to the workflow automation system, the Scallog system's control touchscreen displays the quantities to pick.

A light pointer on the mobile shelf unit indicates which product is to be selected.

**20**  **commands simultaneously**

Using a set of retractable steps and an anti-fatigue mat, the operative simply picks the required products off the mobile shelf unit and places them in the buffer rack. They can prepare up to 45 orders at the same time.

The parcels are filled with low-turnover products smoothly and efficiently – without the operative having to undertake a plethora of journeys or manual operations. When it comes to resupply, operatives are not guided by the



light pointer system – they put products in the free spaces or in ones that already contain the same product

**10000**  **references**

**Storage space saved** – Across the whole mechanised Scallog area, more than **10,000 products are now stored over a small area**. The result is that MDS has been able to pack its stock more densely and so make better use of the space available.

**Operational performance gains** – now, instead of 70/90 manually, more than **200 low-turnover order preparation lines are handled per hour and per station**.



Furthermore, **resupply operations via the Scallog stations have been optimised, and have exceeded targets.** Indeed, pallets are broken down on a per-packet basis.

*multiplied  
productivity **x2,5***

Operatives perform the resupply operation on the mobile shelf unit quickly and straightforwardly. And as an added bonus, MDS now has a **real-time inventory** of the zone.

**Improved working conditions** – Operatives no longer need to work their way through the aisles and undertake numerous arduous manual tasks, which required a great deal of effort, as well as providing opportunities for mistakes.

What they do now is less arduous, and the robotic solutions involved make less noise.

In addition to improved performance and better security, Scallog's robotics solutions provide MDS with **greater flexibility and agility. They can be completely adapted to increases in low-turnover product flows.**

Mr **DELRUE** concluded by saying:



“ With this robotics project, we are seeing the first time and space savings, meaning increases in productivity. We are keen to maximise our performance, with the support of Scallog, which, throughout our collaboration has been responsive, available, close to hand and most importantly agile, helping us grow.”







**THINK BIG, START SMALL,  
SCALE FAST!**



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