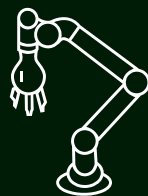


MovU

10 steps to easier automation



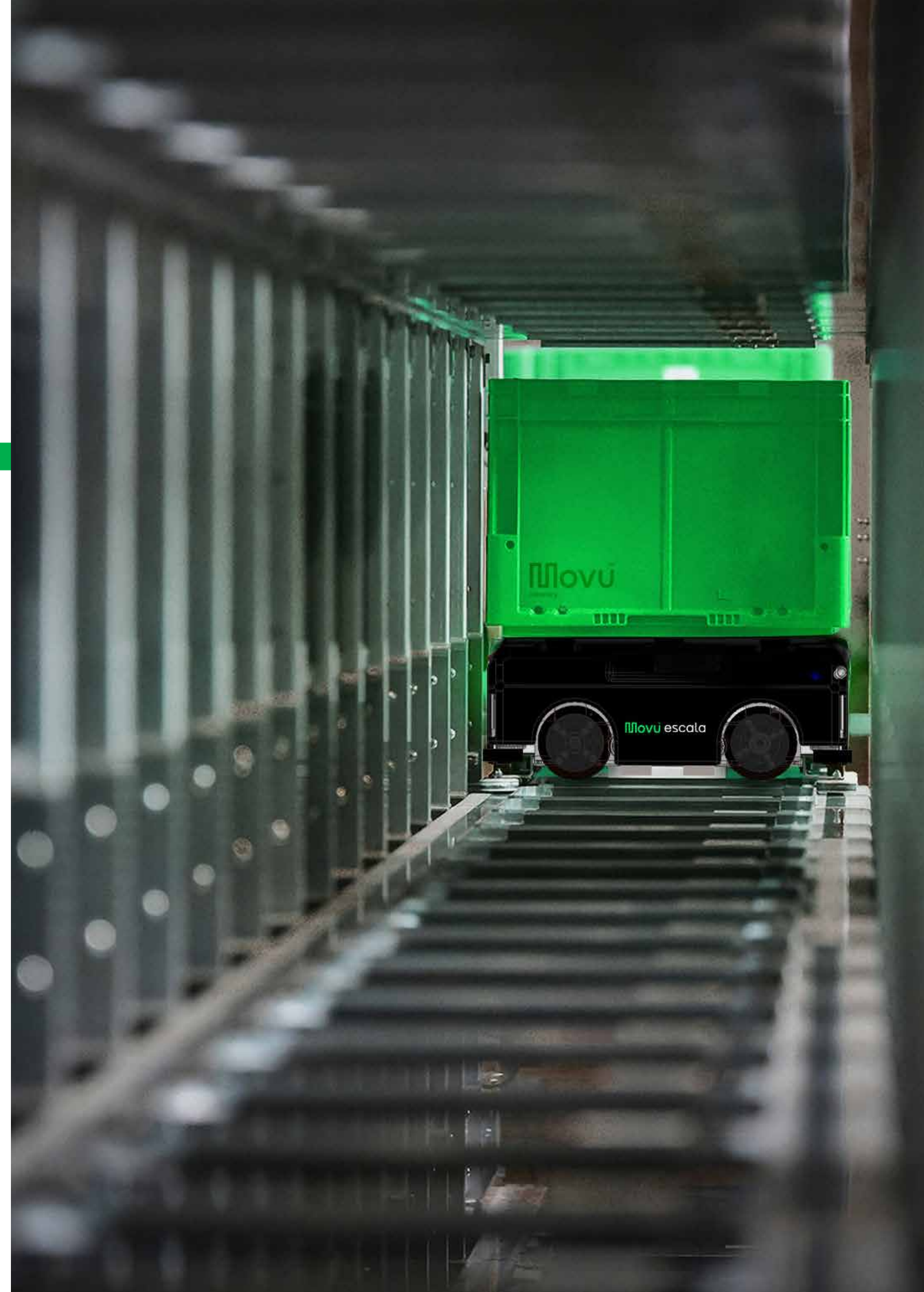
MovUTM
robotics

1 Where are you now?

Start by assessing your current situation to gain a clear understanding of where you are now. Whatever the type, size and layout – even for the most awkwardly shaped facility of your warehouse there is an automation solution. Don't feel that your facility is too small. SMEs with as few as 5000 pallet locations to automate seeking to address challenges such as labour shortages and cost efficiency are a huge growth area and there are automation solutions that will ensure no warehouse is left behind.

Check the following:

- What are your **current processes** and what are their **performances**?
- What are their **associated costs**?
- What **labour resource** do they require?
- Can some or all of the **processes** be **automated**?
- What is the **physical layout** of the warehouse?
- What are the **constraints** on the warehouse?
- What can be changed and does it have the **ability to expand**?
- Will a **solution** be required for the entire warehouse or a specific part?



2 Where are your pain points?

Going deeper, determine where your current bottlenecks and pain points are – and hence where technology would bring the greatest gains. The answers are not always obvious. Relieving pressure at one point may simply transfer problems elsewhere, so a holistic approach is needed, ideally backed-up by comprehensive data analysis.

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Knowing and understanding the direction your business is headed will provide essential strategic insights. Changing goals and new opportunities are likely to impact product profiles, volumes and formats, along with customer service offerings. Fast growth may require a short-term solution, with a bigger step change in the future.

Check the following:

- Does your business have a broader **strategy** in terms of future customers, service and product offerings that may **impact on the warehouse**?
- What **level of growth** is the business expecting year-on-year?
- Who will your likely customers be and how will your **product profile change**?
- Will your **inventory requirements** change?
- Will your **picking profiles** change?



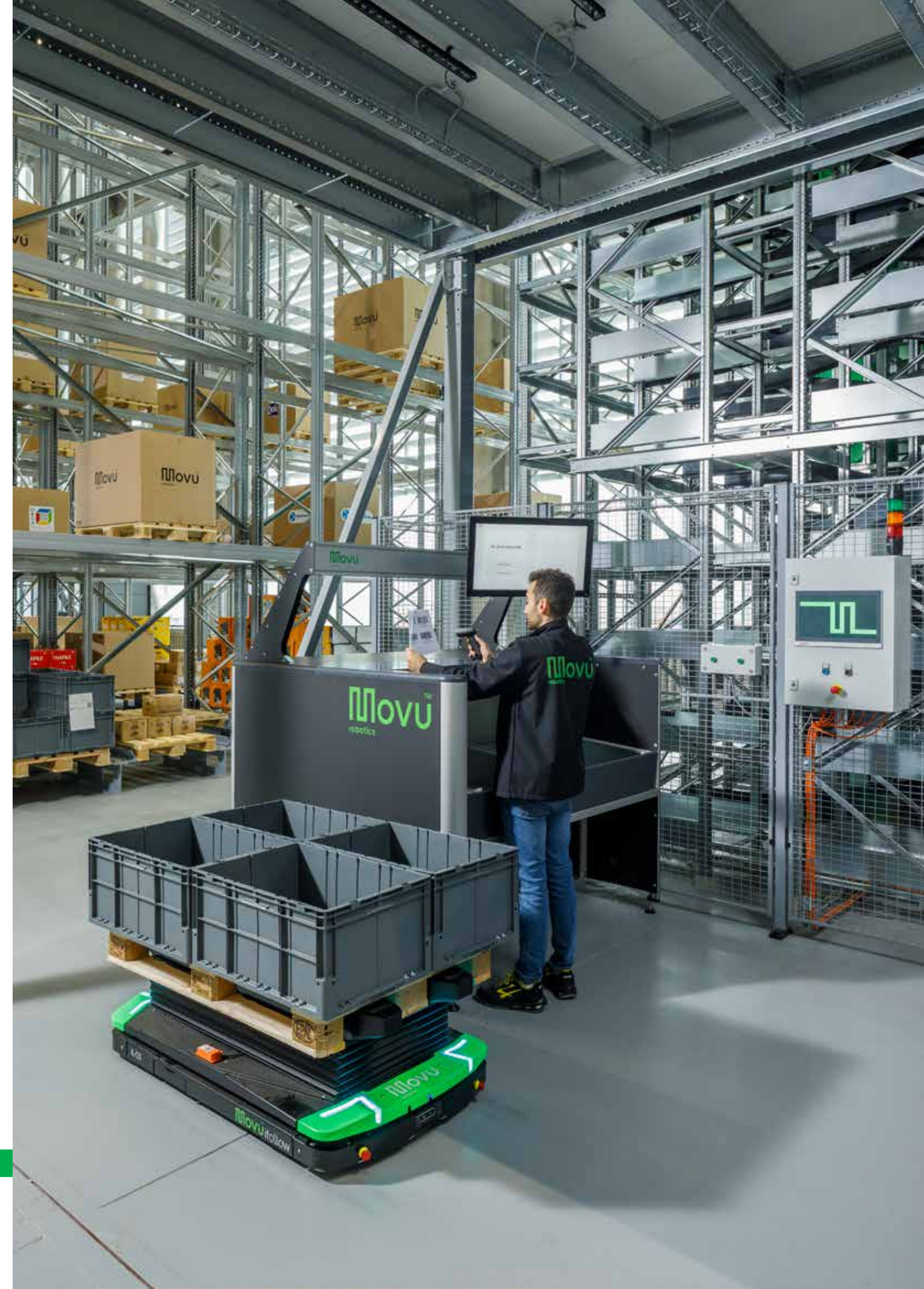
3 Where is your business going?

4 How well do you know your warehouse operations?

Good quality data on variables such as order profiles, order volumes, throughput rates and labour costs will help to substantiate decision-making and significantly contribute to the successful design of an automated solution. ABC and XYZ analyses will help estimate the demand on a company's intralogistics operations and allocate preferential locations within a storage system that minimises average travel distances and enables quick to access fast-moving items and products with a high turnover rate. A complete set of stock data and orders could reveal what products would make sense to group together in an automated system and what products may be too large, needing a different handling solution.

Check the following:

- What **sizes and weights** are your products?
- Is **small parts storage** an important part of the stock profile?
- Are goods stored **on pallets, in bins, using roll cages** or other types of load carriers?
- What **types of goods** are being stored?
- In what **condition** do they need to be kept?
- What is the **value of the goods** being stored?
- What is your stock **turnover**?
- What are your **fast movers**?



5 Be clear on your budget?

Any capital expenditure on automation will be justified by its return on investment over a given period – the faster the better. If capital is limited and throughput is marginal and unlikely to grow much, then rather than adopt a fully automated site, the answer may be to automate specific processes in the warehouse with individual sub-systems. Entering into automation does not always require a large investment – there are many low-cap-ex solutions to explore.

Check the following:

- What **financial resources** are available for any automation project?
- What **rate of growth** are you expecting?
- What period of **return on investment** is acceptable?
- Where would investment in automation **produce savings**?
- Can a longer term, **stepped approach** to investing in automation be adopted?

6 What is your requirement for flexibility and scalability?

Some automation requirements may only require repetitive, efficient functionality. But others may need a system that offers flexibility and scalability as well as increasing capacity to facilitate growth and/or handle change. Simple, standardised plug and play solutions that require less engineering will reduce costs in addition to making automation more accessible. Automated systems with modular design can act as a set of building blocks, making them highly scalable. This means installations can start small and then either expand or, if needed, they can downsize just as easily.

Check the following:

- Are your processes **repetitive or varied**?
- Do you need **flexibility** to meet changing requirements?
- Do you need a **scalable system** that will grow to support business growth?
- Will the automation need to operate in **different environments** – for example, a cold store?
- Will the system need to **handle peaks** in demand?
- Will you need the ability **modify the automated system** according to requirements?

7 Review appropriate technologies

Once it has been decided that some form of automation is needed, the next step is to review appropriate technology.

Automation has evolved to become more cost efficient and flexible. More recently, a plethora of new robotics companies brought automation to a broader market. Autonomous Mobile Robots (AMRs), for example, can transport pallets or other load carriers and are suitable for collaborative robot-human interaction, such as supporting order pickers. The ability to add or remove robots according to peak requirements means it is an enormously flexible automated intralogistics solution.

Other automated technologies that can potentially offer the right solution include automated storage and retrieval systems for pallets and for bins, which can be either stacker crane or robotic shuttle based, and picking arm robots that can automatically piece-pick from a SKU source bin into a multiple SKU order delivery container with accuracy and at a high pick rate.

With newer technologies especially, it is important to seek out practical, accessible systems that will work in the real world rather than futuristic concepts. Software is a crucial tool for optimising the management, co-ordination and monitoring of technologies to ensure a smooth flow of materials. It will need to integrate with your business systems.

Check the following:

- What are the **key tasks** in your warehouse that could benefit most from automation – for example, order picking, storage and retrieval, internal transport?
- Is **reliability or innovation** more important?
- What are your **software requirements**?
- How will **staff interact** with automation?
- How will automation work **in your warehouse** and with your logistics operations?



8 Select the right partner



When seeking a supplier to design and implement an automated solution there are different categories: integrators are suitable for large-scale integrated projects with long lead times and high cap-ex. There are smaller suppliers that offer a single product as a solution to a specific problem. Between these two ends of the spectrum, occupying the middle ground, is where to find suppliers that provide a portfolio of sub-systems that can also be integrated to automate more areas of the warehouse and will give more options for arriving at a solution that delivers the required performance.

Plug and play, modular solutions will make installation easier and be adaptable to new business needs through simple integration of new applications. Experience and expertise will avoid the danger of creating unnecessary complexity. Automation technology will also often need to work seamlessly with racking, and it helps in such cases if customers have a single contact representing both racking and automation.

Check the following:

- What level of **support** do you require for an automated warehouse solution?
- Does the **supplier offer more** than a single technology product?
- Can the supplier offer a portfolio of **cutting-edge sub-systems**?
- Can sub-systems be seamlessly **integrated** into complete systems?
- Can the supplier offer the **appropriate software**?
- Are sub-systems designed to be **plug and play** and modular?
- What level of **experience** and expertise does the supplier have?
- Does the automation supplier also provide **racking**?
- Will the supplier provide good **project management**, reliable lead times and efficient project commissioning?
- Can a supplier **handle your project** or will you require a systems integrator to design a complete project?
- If using a systems integrator, will they be able to integrate a preferred **fully functional storage** sub-system if appropriate?

9 Are you ready to work closely with your supplier?

It is critical to go into the detail with your supplier and make sure they understand your requirements precisely. Both parties need to be clear on the results the solution is expected to achieve. A supplier working closely with the customer will ensure the installation is carried out with minimum disruption. Once the warehouse automation is operational, suppliers with a network of offices in main territories will be able to provide more localised support.

Check the following:

- How will the **solution be integrated** into my overall business?
- How **does it fit** into the warehouse and other operations?
- Have you gathered all the **relevant data**?
- Will the solution deliver its **promised performance**?
- How much **time** can be **allocated** for planning the implementation, integration, testing and commissioning?
- What **arrangements for continuity** of services will be needed?
- What **support and service arrangements** will be required for the operational system?
- Have you plotted all the **important deadlines and milestones** your require ready for the project?



10 Try before you buy

Being able to visit an experience centre will offer a real advantage, particularly if it showcases technology in action, ideally in a realistic warehouse setting, with software screens demonstrating the controlling software and giving visibility of what is going on. Experience centres will allow customers to see solutions work and enable them to test ideas with their own goods or load carrying units, as well as seeing how their own personnel interact with solutions – investigating ergonomic considerations, for example. This will help with the design of a solution and allow modifications to be made, giving confidence that the solution will work as intended once installed. Simulation software can bring a concept to life, highlighting where in the system there is too much capacity and where there isn't enough, and hence, where expansion is required. Simulation will also allow planning for 'what if' scenarios.

Check the following:

- Does the supplier have an **experience centre**?
- Can you **try your products** and bring your staff?
- Do you have access to **simulation software**?
- Can the simulation model **'what if' scenarios**?
- Do you have space in your facility to create a **test installation**?

Easier warehouse automation

Movu Robotics is a great place to start on the path to easier warehouse automation. Visit the Movu Robotics website www.movu-robotics.com, where in addition to comprehensive information on robotics and automation solutions for warehouses, there is an opportunity to gain free tickets to LogiMat 2024 in Germany, IntraLogisteX 2024 in the UK, and SITL 2024 in France and Modex 2024 in US. The shows offer a great chance to meet our experts, who can help you on the path to easy warehouse automation.

Movu solutions make warehouse automation and robotics more accessible and scalable. The company creates solutions from robotics and automation technology that is smart enough to make any operation feel simple. They will help take a load off your mind as well as your shelves. Movu's philosophy is that any warehouse large or small, regular or awkwardly shaped can be upgraded and become more productive, more efficient and more successful and not be left behind in the race to warehouse automation.

>> Contact our experts



No warehouse
left behind.

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