

Your business case:

Investment & Performance Outlook



This report provides a high-level, directional overview of the potential business case for a ROCKET Shuttle System. The results are based on assumptions and are intended for initial evaluation only. All figures and conclusions are subject to validation and refinement in collaboration with a representative from the ROCKET Solution Team.

Business Case at a Glance

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Achieve ROI in **ROI in 1-3 Years**

Reduce your labor needs by **86.67 %**

Annual labour cost savings **\$ 1,696,000.00**

Reclaim **971 M2** of your floor space

Go live in **10 Months**

Total System Investment

\$ 4,785,000.00

Rocket System Scope Investment

\$ 3,943,000.00

Integrator Scope Investment - Estimated

\$ 842,000.00

Does req. System Design fit into existing space?	Yes
Required Storage Capacity	Yes
Required System Performance	Yes
Req. max. Tote Weight	Yes

In the remaining sections of the report, you will find a full analysis of your investment and return on investment (ROI) timeline, labor efficiency gains, system size, capacity, and estimated throughput.

Investment & ROI Timeline

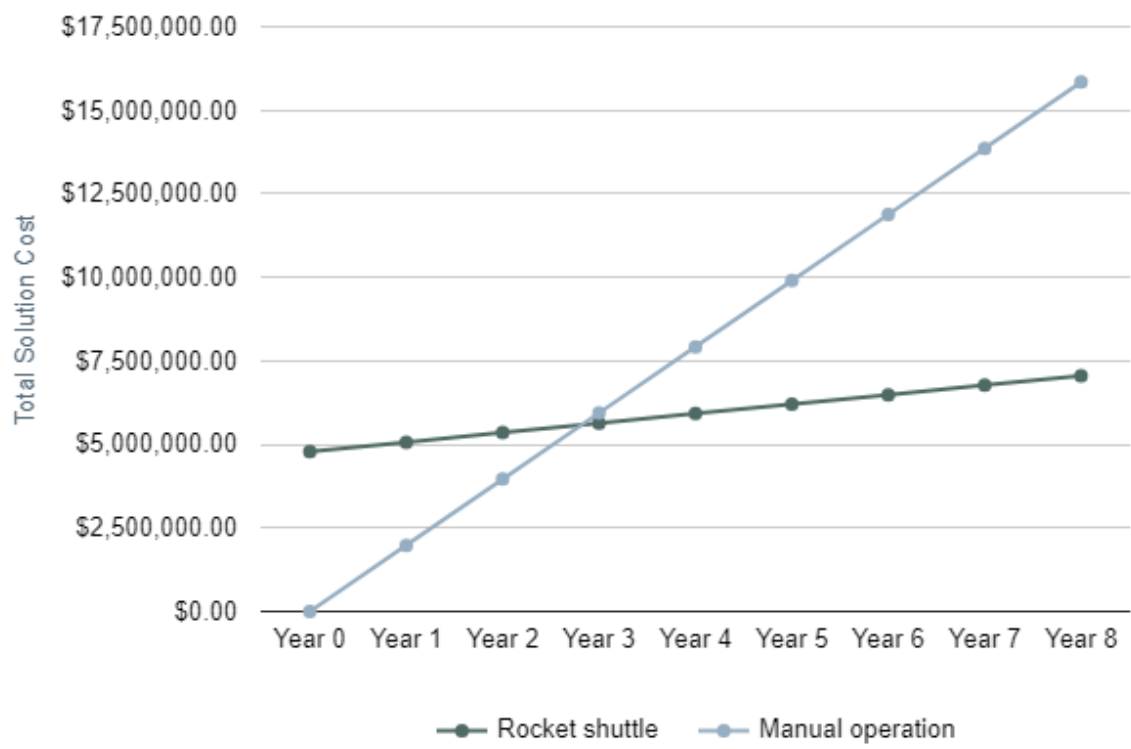
Total System Investment **\$ 4,785,000.00**

ROI Timeline **ROI in 1-3 Years**

The Total System Investment includes estimated material and installation costs for the Rocket Shuttle system, rack, robots, ports (workstations), and software. Our engineering team can often reduce costs further through improved inventory management and order batching. These directional estimates are based on your operational inputs and general market assumptions drawn from our decades of experience.

1During detail design phase, the following will be further evaluated: Transportation cost, site survey, floor slab requirements, seismic considerations, server architecture, power, permits, and fire suppression.

Investment & ROI Timeline, continued



This chart illustrates the cumulative total solution cost over an eight-year period for manual operations versus the ROCKET Shuttle System. It highlight the long-term financial implications of each approach.

Manual operation costs rise sharply due to increasing labor demands, training, turnover, inefficiencies, and the potential need for additional warehouse space. As volume grows, so do headcount and associated expenses, resulting in a steep cost curve.

In contrast, the ROCKET Shuttle System requires a higher upfront investment in equipment, installation, and integration. However, ongoing costs remain low, driven by reduced labor needs, minimal energy use, and efficient space utilization. Because the system scales without proportional increases in workforce or footprint, its cost curve remains relatively flat.

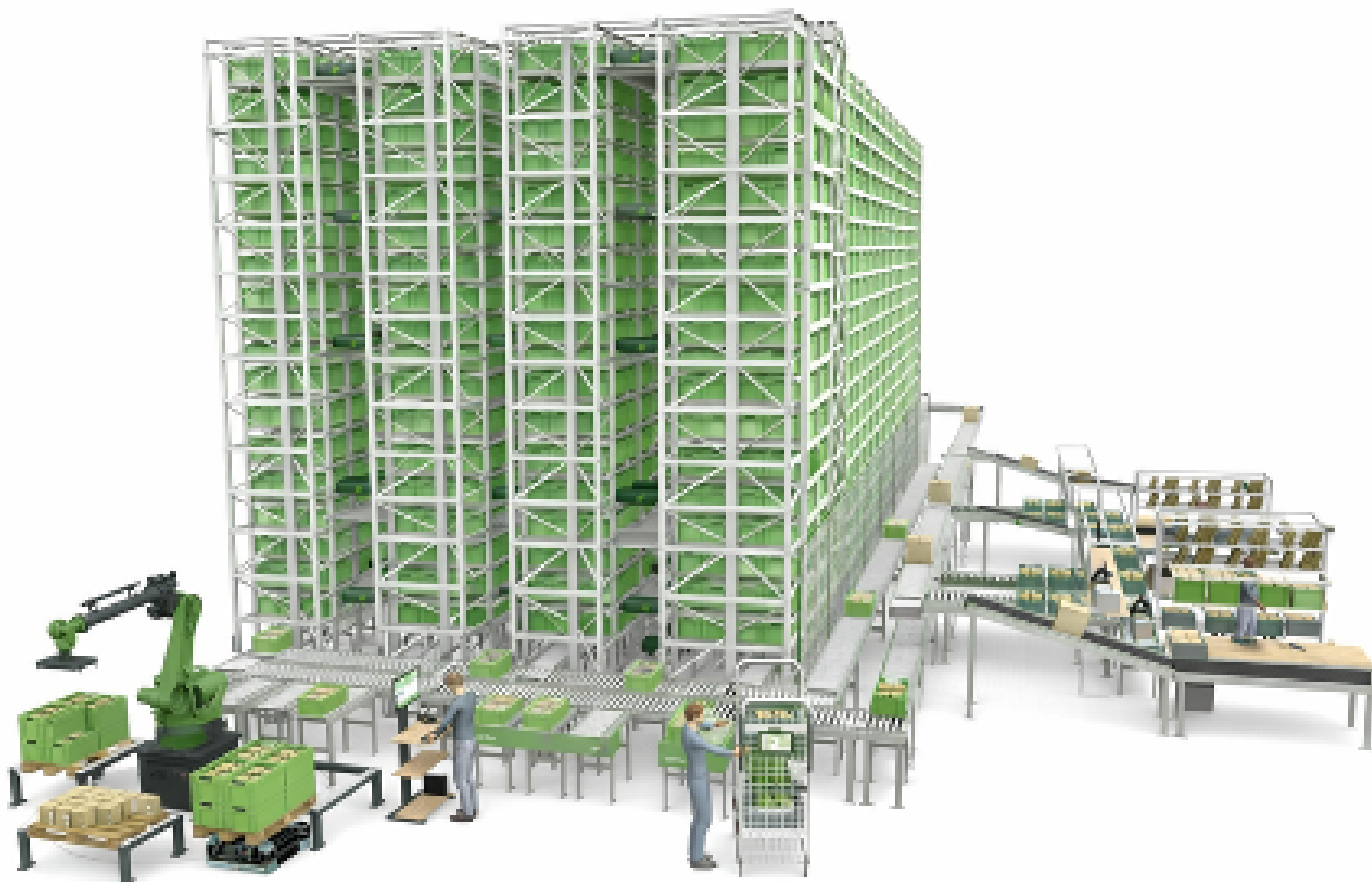
This comparison helps quantify long-term value of automation and supports investment decisions by illustrating how the ROCKET Shuttle System can deliver more predictable and scalable operating costs over time.



System Size & Space Savings, continued

We've prepared a custom interactive 3D rendering of your project, showing the estimated number of Aisles, Shuttles and maintenance Levels outlined in this report. Click the link below to explore your rendering—view the system from any angle and see an accurate representation of its length, width, and height.

[View your customized 3D rendering¹](#)



Sample 3D Rendering
(Use the link above to view your customized rendering)



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System Capacity & Throughput

ROCKET Shuttle Capacity

Number of Shuttles	48
Number of Shuttle Aisles	3
ROCKET Shuttle Aisle Type	4-Deep
Storage (Shuttle) Levels per Aisle	16
Number of Lifts per Aisle	2
Number of Picking Workstations	3
Number of Goods-In Stations	1
Bin Storage Capacity	25344

Each storage bin stored can be configured with up to 8 internal storage locations, allowing you to store multiple SKUs or product types within a single bin.

Throughput

System bin presentations per Hour or Lines/h	1620
Units picked per Hour	1782
Orders fulfilled per Hour	162
System bin presentations per Day or Lines/day	12960
Maximum bin presentations or Lines per Day*	38880
Units picked per Day	14256
Orders fulfilled per Day	1296

*Maximum Bins per Day represents the system's maximum throughput capacity if operated continuously across all 24 hours.



Investment & ROI Timeline, continued

The Breakdown: Annual Cost Comparison

	Manual Operation	ROCKET SHUTTLE	Annual Cost Savings
Year 1	\$ 1,980,000.00	\$ 5,068,692.09	\$ -3,088,692.09
Year 2	\$ 3,960,000.00	\$ 5,352,384.18	\$ -1,392,384.18
Year 3	\$ 5,940,000.00	\$ 5,636,076.27	\$ 303,923.73
Year 4	\$ 7,920,000.00	\$ 5,919,768.36	\$ 2,000,231.64
Year 5	\$ 9,900,000.00	\$ 6,203,460.45	\$ 3,696,539.55
Year 6	\$ 11,880,000.00	\$ 6,487,152.54	\$ 5,392,847.46
Year 7	\$ 13,860,000.00	\$ 6,770,844.63	\$ 7,089,155.37
Year 8	\$ 15,840,000.00	\$ 7,054,536.72	\$ 8,785,463.28

This chart presents a year-by-year breakdown of operating costs for manual fulfillment versus the ROCKET Shuttle System, along the resulting annual cost savings. While both methods incur expenses each year, the key difference lies in how those costs behave over time.

The Shuttle's operating costs remain relatively flat due to its automation-driven efficiency and minimal reliance on labor as volumes grow. In contrast, manual operation costs increase significantly each year, driven by rising labor demands, staffing challenges, and space constraints.

The business case above focuses on managing and optimizing operational costs, but the ROCKET Shuttle System delivers far more. Imagine growing inventory capacity by 70% or more without adding facilities, or fulfilling any order within 30 minutes. These capabilities unlock new revenue streams, faster service, and differentiated customer experiences. That's why the ROCKET Shuttle System is considered a strategic enabler – not just a cost optimization tool.



System Design Capacity vs User Target Requirements

	Actual	Target
System Storage Capacity	25344	25000
System Performance (Lines per Day)	12960	10000

Theoretical max. System Capacity in available Footprint - Max. Brownfield Scenario

Number of Shuttle Aisles 4-Deep System	11 Aisles
Total Storage Capacity 4-Deep System	128128 Storage Locations
Number of Shuttle Aisles 6-Deep System	8 Aisles
Total Storage Capacity 6-Deep System	139776 Storage Locations
Total hourly 4-Deep System Performance	7040 Bin presentations / h
Total hourly 6-Deep System Performance	3840 Bin presentations / h

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Labor Efficiency Gains

Manual Operation	30	Estimated full-time staff needed for current demand
ROCKET	4	Full-time equivalents needed to run the Rocket Shuttle System
Labor Reduction	26	Use your avg. annual cost per FTE to calculate
Labor Cost Savings	[26] x (Your local annual cost per FTE)	Reduction in full-time staff required

The ROCKET Shuttle System delivers massive savings in wages, benefits, and overhead while maintaining throughput, and it scales without reliance on seasonal or hard-to-hire roles. These savings extend beyond payroll. For example, in a manual operation with 100 FTEs, 20% turnover means replacing about 20 employees each year. Because the ROCKET Shuttle System operates with a fraction of that workforce, the burden of recruiting and training drops sharply. During peak season, throughput increases come from adding technology, not headcount.

¹ Full-Time Equivalent (FTE) represents one full-time employee working a standard number of hours per week (typically 40 hours). It's a standardized way to measure labor, whether fulfilled by full-time staff or a combination of part-time roles. For example, two part-time employees working 20 hours each would equal 1 FTE.

System Size & Space Savings

System Length	48 m	Reclaim 971 M2 Of Floor Space
System Width	14 m	
System Height	9.7 m	
Total Footprint	647 m2	

Estimated space savings are based on comparing ROCKET Shuttle System to traditional shelving and picking, factoring in aisle widths, rack spacing, and pick paths. Actual results will depend on your layout and processes. The reclaimed floor space represents space you no longer need to lease, heat, cool, insure, or maintain – avoided facility costs that add up year after year. To estimate potential savings, multiply your local cost per sqft or sqm by the reclaimed area.

For systems with multiple bin heights, we assume dimensions of 170 mm, 220 mm, and 320 mm. For systems with a uniform bin height, we assume a bin height of 320 mm.



System capacity & Throughput, continued

Order line per Day per FTE			
	Lines per Day	FTEs	Lines per FTE per Day
Manual Operation	12960	30	432
ROCKET Shuttle	12960	4	3240

Your ROCKET Shuttle is designed to handle today's order and line volumes with far fewer resources than a manual operation.

Need to grow by 10,000 lines per day? ROCKET Shuttle can scale by simply adding additional aisles - not headcount. You gain flexibility to meet peak demand and long-term growth with linear increases in labor or space.

*FTE - Full Time Equivalent

Workstation Options		
	Lines per Hour	Description
Workstation 1	500	2:4 Goods-to-Person
Workstation 2	350	1:4 Goods-to-Person
Workstation 3	250	1:1 Goods-to-Person

Each operation has a unique order fulfillment workflow, product types, and throughput requirements. That's why we conduct a deeper analysis during the design phase to recommend the optimal port type (or combination) for your operation.

For this report WS 1 was considered.



Your Inputs

How many customer orders do you ship per day?	1000
How many order lines do you ship per day?	10000
How many units are there per order line?	1.1
How many hours are spent on picking orders?	8
How do you measure your storage?	Bins
Required [Bin/SKU] Capacity?	25000
Do you need different bin heights?	No
What is the interior ceiling height?	10
What is the available Footprint Length and Width?	65 50
What is your required max. tote weight?	Up to 35 Kg
In which country is your facility located?	United Kingdom
In which city or region will your system be installed?	London
What Vertical Market is your business?	Health & Beauty



Maximize Your Investment

Let's explore together how to get the most out of your ROCKET Shuttle System.

We can help you::

- Accelerate ROI beyond the results shown in this report.
- Compare your KPIs with alternative technologies you may be considering.
- Identify hidden efficiency gains based on your unique workflows.
- Evaluate smart configurations to improve space utilization, speed, and throughput.

Let's take your system to the next level.

To get started, simply reply to the Rocket Solution expert who provided this report or email, or contact us at Michael.Rieser@rocketsolution.de



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