



Unlocking Efficiency and Innovation
Introducing Novus P-Mover™
Your Autonomous Intralogistics Solution

2023



1000+ Robotic Automation Solutions



- Smart Warehousing with Major 3PL, E-Commerce
- Intralogistics Solutions for Solar, Cell & Battery

2022



- Autonomous Intralogistics for EV Maker
- AMR with 3D Navigation Technology

2021



5 Million+ Km Mobile Robot Travel

2020



Cloud Based Analytics

2019



- Autonomous forklift for Major FMCG Mobile Robot based
- Assembly lines for Major Automotive OEM
- Intralogistics Solution for Paint & Chemical Industry

2018



Driverless Shuttle Auto Expo

Autonomous Bus



2016



Autonomous Mobile Robot



- Autonomous Tank
- Autonomous Armoured Vehicle for Indian Defence

2015



- Computer Vision
- Autonomous Navigation research for DARPA & US DOD projects
- Carnegie Mellon University Research Team

2005



Carnegie Mellon University



NOVUS P-MOVER™ : Redefining Intralogistics

Elevate Your Operations, Elevate Efficiency

Introducing NOVUS P-MOVER – your ultimate solution for revolutionizing intralogistics. Say goodbye to the limitations of conventional methods. NOVUS P-MOVER empowers you with groundbreaking advancements, seamlessly transforming your pallet movement from point A to point B.

Welcome to the future of intralogistics with NOVUS P-MOVER – your gateway to revolution. Within this realm, you'll find not one, but two remarkable solutions:

1. ABOPT: Seamless Ground-to-Ground Movement

(Autonomous Battery Operated Pallet Truck)

Unlock the potential of ABOPT – the embodiment of precision and autonomy. Experience a new era of efficiency as ABOPT effortlessly orchestrates ground-to-ground movement of pallet loads and bulk inventory. Navigating across warehouse and manufacturing facilities, ABOPT eradicates inefficiencies, ushering in a future of streamlined operations.

2. STACKER: Seamless Ground-to-Height Movement (1 meter)

Elevate your possibilities with STACKER – the guardian of vertical space optimization. Witness the seamless lifting of pallet loads and bulk inventory to impressive 1 meter heights. No longer bound by floor limitations, STACKER introduces a new dimension to your intralogistics, maximizing storage and accessibility.



Unlocking Efficiency:

Why Your Intralogistics Demands NOVUS P-MOVER™

In the conventional world of intralogistics, the transfer of pallets between points A and B has long been a taxing endeavor. Manual handling, human intervention, and time-consuming processes have been the norm, limiting operational speed and efficiency. This conventional approach, while once the only option, comes with its set of challenges:

**Labor
Intensive**

**Downtime
Woes**

**Space
Limitations**

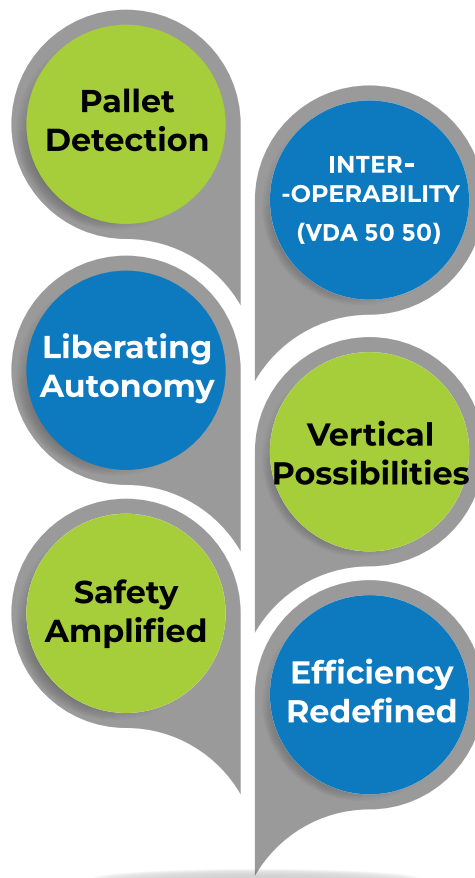
**Safety
Concerns**



NOVUS P-MOVER™ :

The Game Changer in Pallet Transfer Paradigm

In this complex tapestry of challenges, emerges a true game changer – NOVUS P-MOVER. With an unwavering focus on redefining intralogistics, NOVUS P-MOVER steps onto the stage, casting aside the conventions of old. Seamlessly addressing the woes of the past, it ushers in a new era of efficiency, precision, and safety:





Impact Redefined: Embrace the NOVUS P-MOVER Revolution

NOVUS P-MOVER isn't just change; it's impact personified. As it seamlessly orchestrates pallet movement, it carries with it the weight of innovation, efficiency, and safety. Every lift, every shift, and every glide is a testament to the future of intralogistics. With NOVUS P-MOVER, your operations are not just transformed – they're elevated. Welcome to a realm where every movement resonates with the pulse of progress.





Revolutionize Your Operations with NOVUS P-MOVER™

Are you ready to take your intralogistics operations to the next level? Meet ABOPT/STACKER, the cutting-edge Autonomous Mobile Material Handling Equipment (MHE) that is set to transform the way you move, stack, and manage pallets within your workspace. ABOPT/STACKER is designed to drive operational efficiency, enhance safety, and pave the way for unmatched growth and performance.

Key Features



Benefits of NOVUS P-MOVER

- Enhanced Efficiency
- Space Optimization
- Operational Agility
- Scalable Growth
- Operational Safety



STACKER

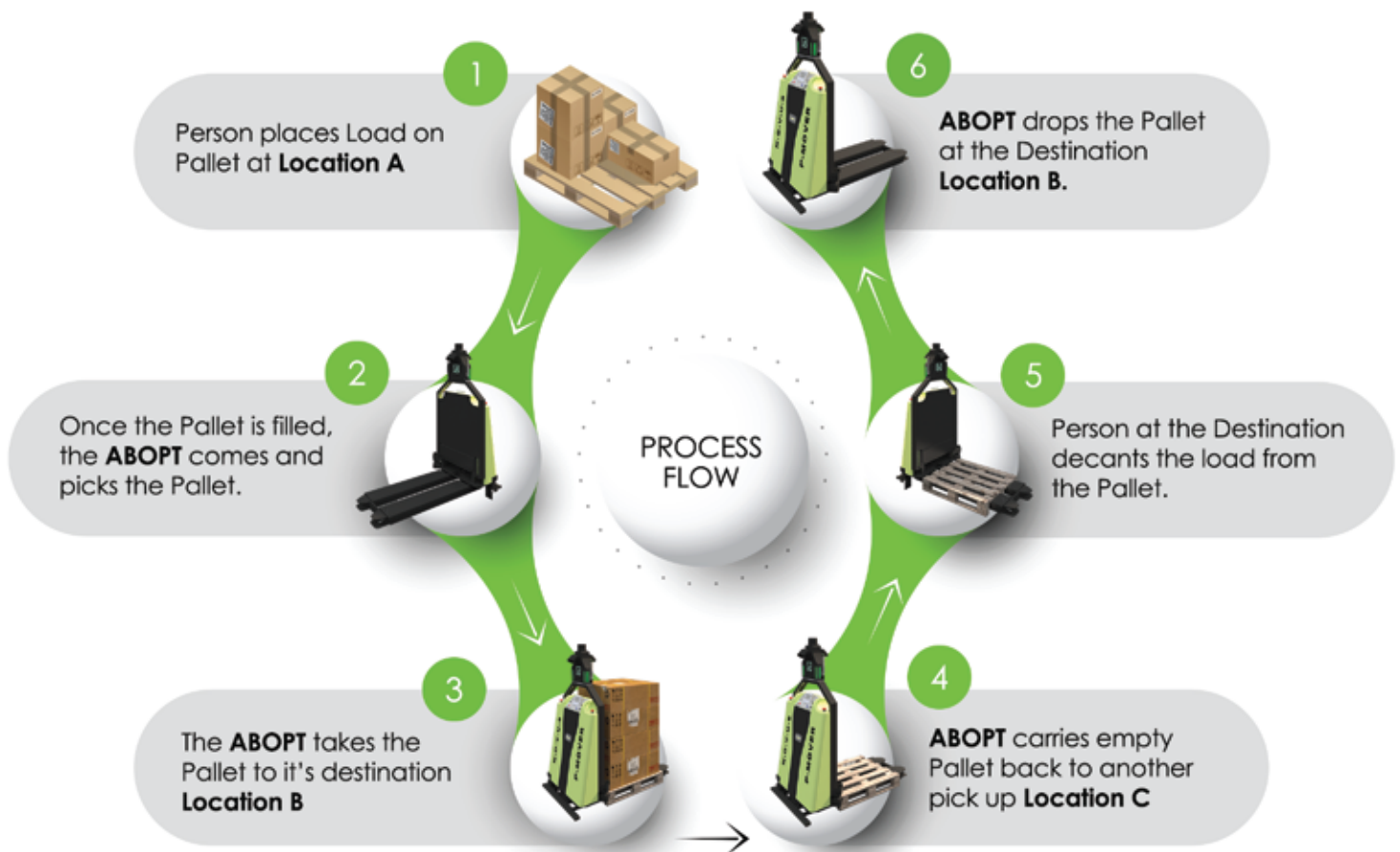


ABOPT



PALLET TRANSFER

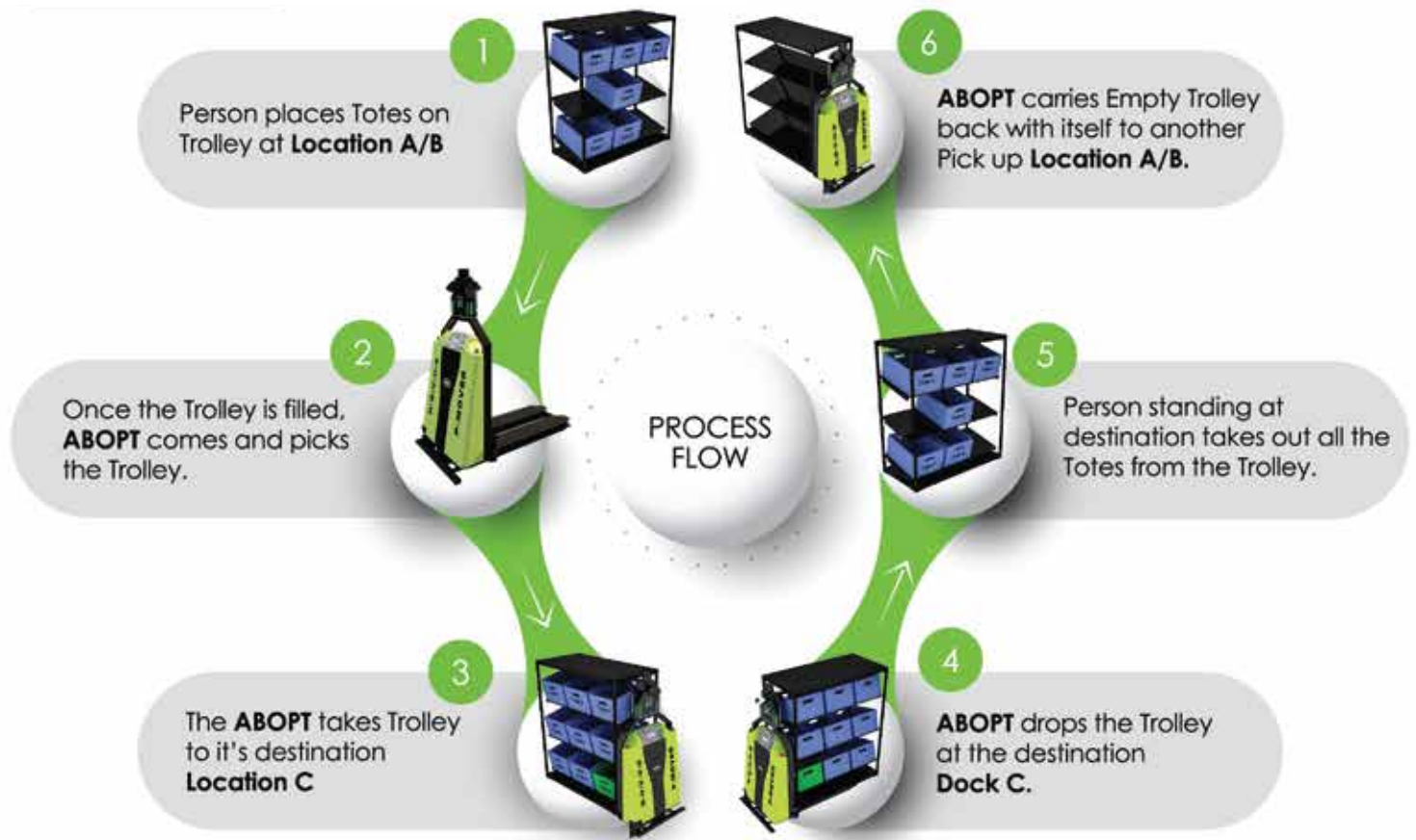
GROUND-TO-GROUND





GROUND-TO-GROUND

TRANSFER OF TROLLEY WITH TOTES



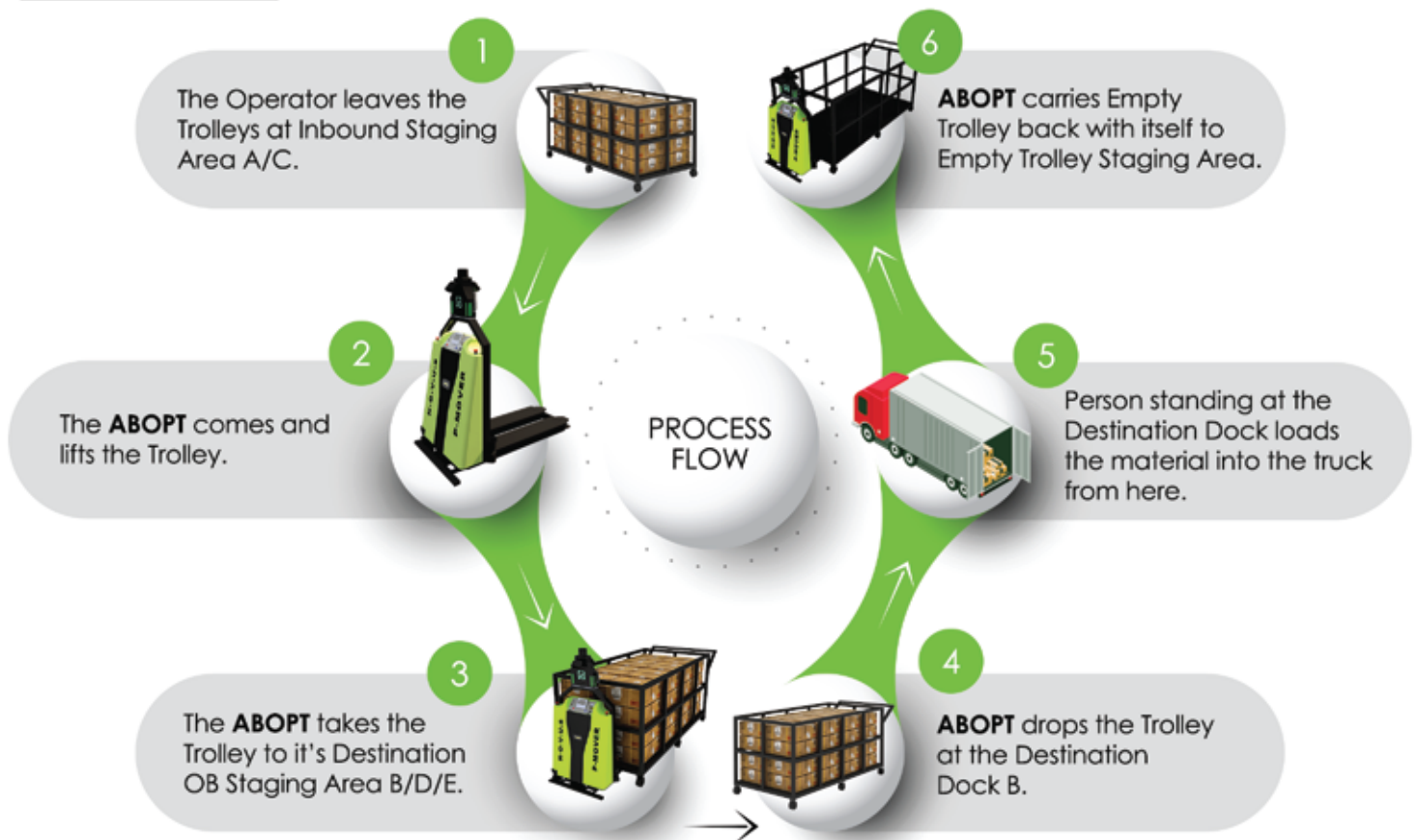


CROSS DOCKING

STAGING OF INVENTORY - INBOUND/OUTBOUND-INBOUND TO OUTBOUND

CROSS DOCKING

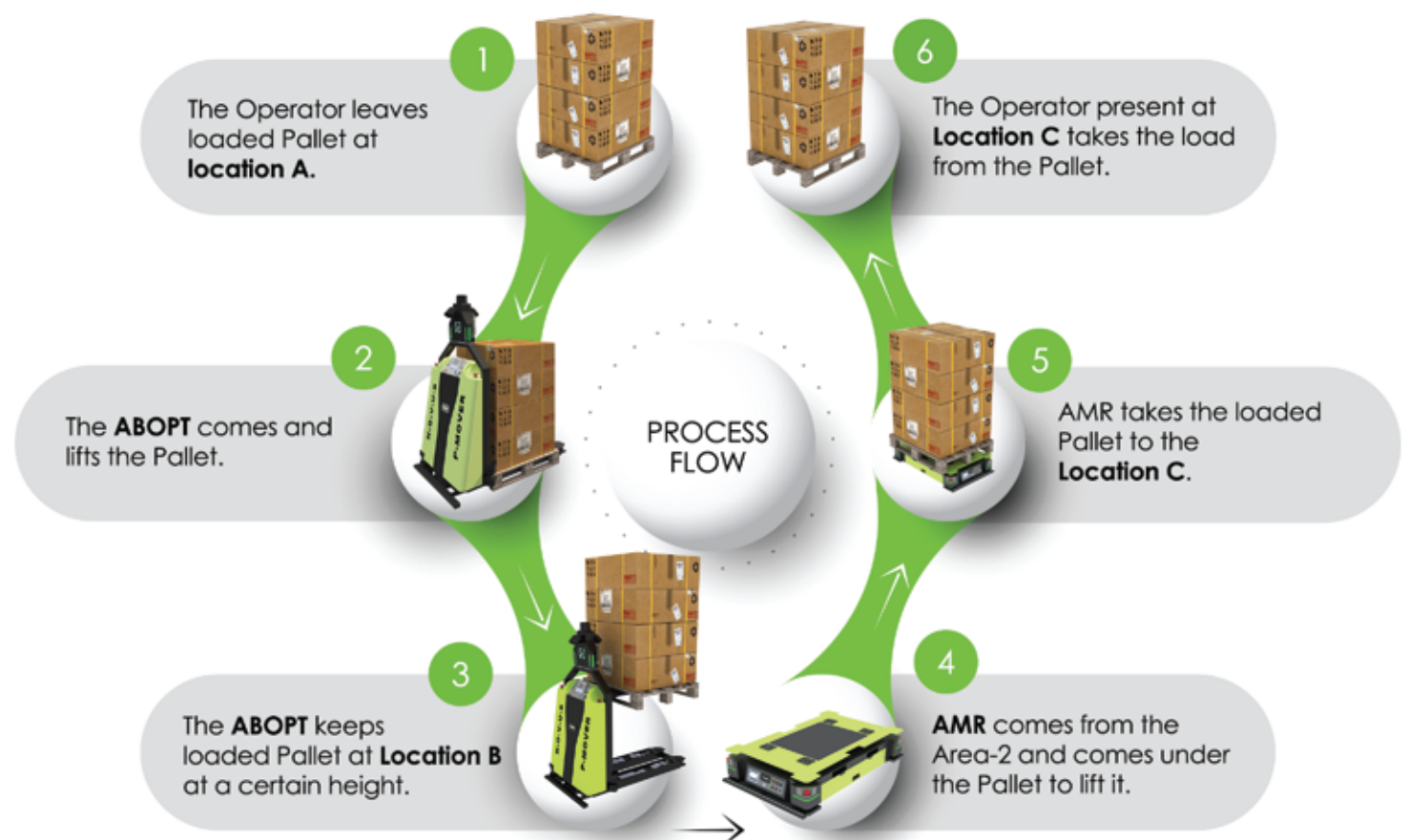
STAGING OF INVENTORY - INBOUND/OUTBOUND - INBOUND TO OUTBOUND





TRANSFER OF PALLETS GROUND-TO-HEIGHT

GROUND TO HEIGHT (<1M) AND FROM HEIGHT (<1M) TO GROUND)

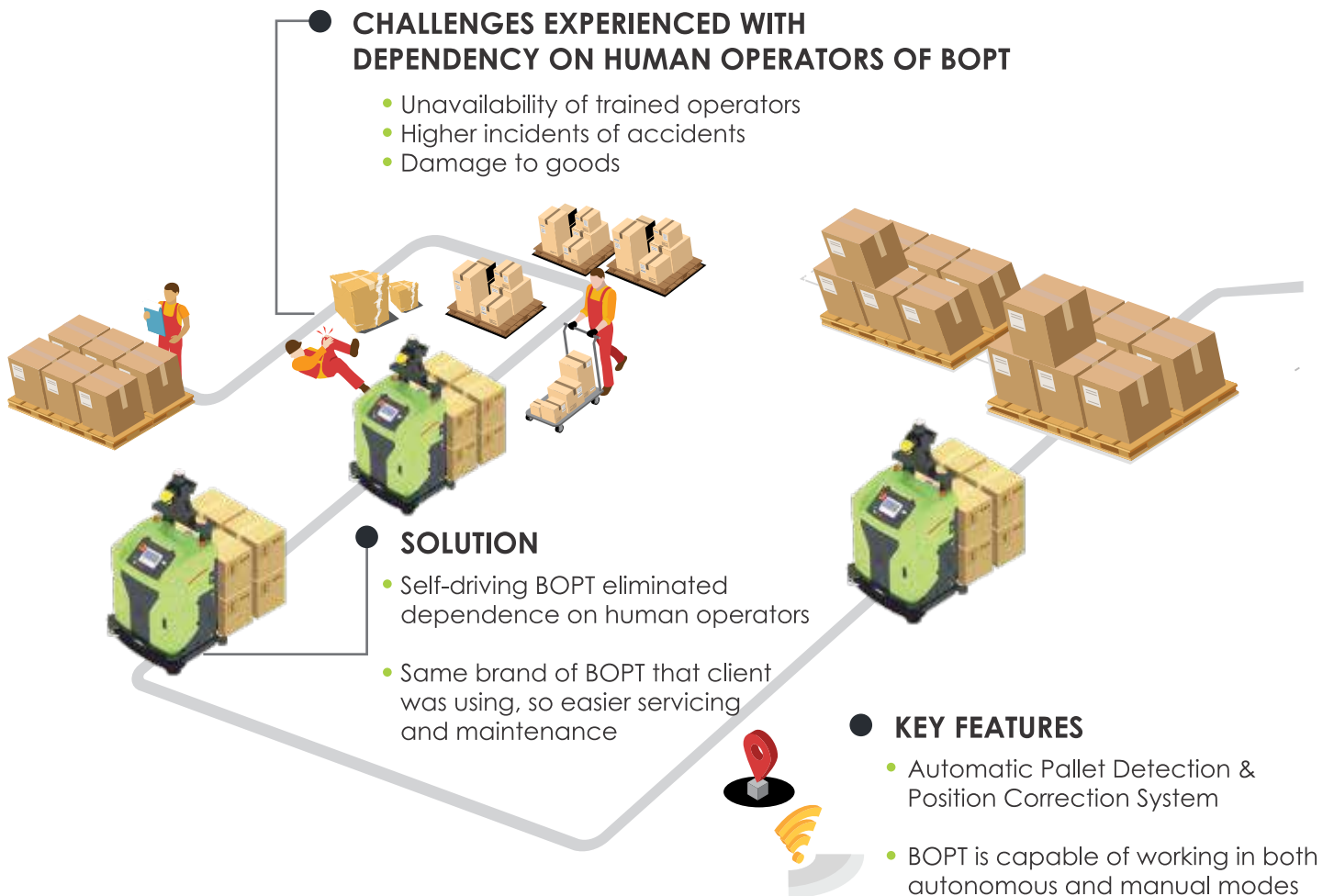


CASE STUDY

SELF DRIVING ABOPT

Helps increase productivity while ensuring higher operational safety and reducing damage to goods

INDIA'S LARGEST FMCG COMPANY



RESULTS



Saved costs of up to 480 man hours for a two-shift operation, and costs of up to 720 man hours over three-



Reduced material damage cost



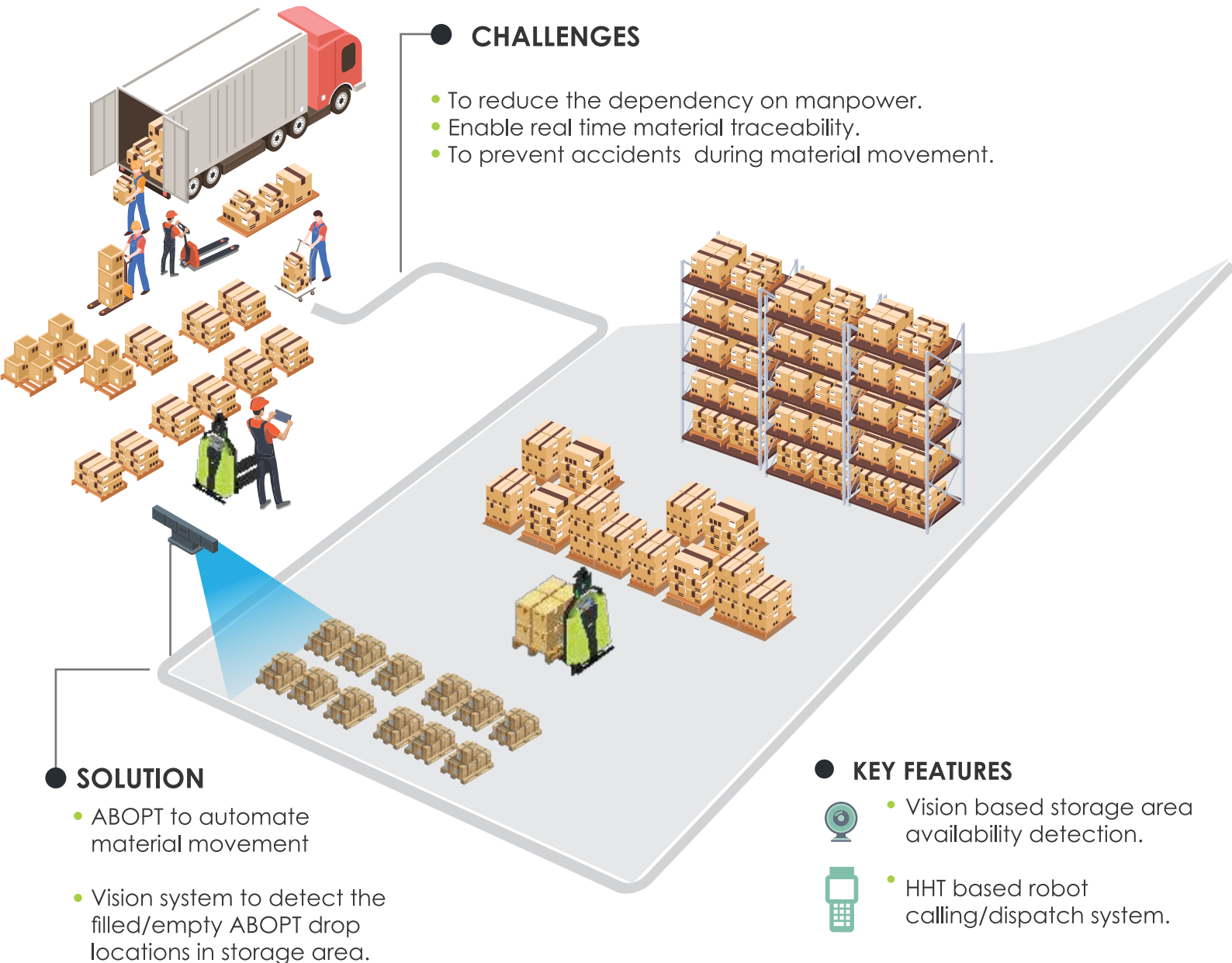
Smoothened operations with no dependency on operators

CASE STUDY

INDIA'S LEADING 3PL COMPANY

SELF DRIVING ABOPT

ABOPT enables material movement from Inbound Staging Area to Storage Area



RESULTS



12 manpower saving per day



ROI period of 38 Months



Elimination of accidents arising from



Real time tracking of material movement

Why Choose NOVUS P-MOVER™

Elevate Your Intralogistics to New Heights

Seamless
Traceability for
Enhanced Control

Unlocking
Autonomous
Material
Handling
Excellence

Prioritizing
Safety

Operational
Efficiency
Redefined

Customized to
Fit Your Workflow

ROI Assurance

Maximizing
Productivity with
Time Savings

Embracing
Sustainability

Description	Stacker	ABOPT (P-mover)
Payload capacity	1500 Kg Max	1000 Kg Max
Navigation Technology	Natural Navigation	Natural Navigation
Localization Technology	Li Dar Based	Li Dar Based
No load maximum speed	60 m/min	90 m/min
Motor Type	BLDC	BLDC
Stacker Movement	Bi-directional	Bi-directional
Pallet Safety	Fork tip non contact bumper	Fork tip non contact bumper
Obstacle detecting	Safety Class area scanner	Safety Class area scanner
Stopping Accuracy	+/-50 mm	+/-50 mm
Power Source	24 V DC Lithium-ion	48 V DC Lithium-ion
Battery Charging System	Offline (Battery Swapping)	Opportunity Charging
Battery on Single charge	8 hours (Single Charge)	8 hours (Single Charge)
Battery type	Optional Lithium Ion /Customisable	Lithium Ion/ Customisable
Drive Configuration	Single wheel Steering Drive	Differential Drive
Communication	Wifi 6 , 5G	Wifi 6 , 5G
Front Castor Wheels	Swivel Castor (PU)	Swivel Castor (PU)
Lifting Type	Hydraulic (Single Acting)	Electric Lifting
Lifting Height	Ground to 1000 mm	Ground to 80 mm
Floor Gradient	1.5 Degree with derated load	0.5 Degree with derated load
Dimension	1750 (L) X 1000 (W) X 2100 (H)	1650 (L) X 950 (W) X 1850 (H)
Stacker Weight (Kg)	850 Kg	350 Kg

*all specifications can be customized as per use case

About the HiTech Group

\$250 Million Group | **26+ Years Of Operation**

As part of the HiTech Group, Novus Hitech benefits from the strength of one of the leading automation and technology firms in the industry. With a global presence and deep expertise in robotics, automation, and AI, the HiTech Group is committed to driving innovation in the **solar PV and energy storage sectors.**"



2600+ Employees

Across multiple divisions, including robotics, AI, and automation



Global Presence

Operations in 10+ countries with 5 state-of-the-art manufacturing plants



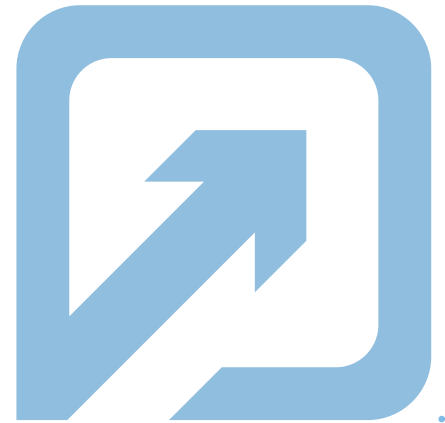
Manufacturing Capacity

Over 1 Lac square feet of production space dedicated to high-tech manufacturing



Innovation & R&D

100+ Patents Filed, with research centers, HiTech Group continuously invests in R&D, driving innovation in smart automation systems



Our Achievements

						
Generative AI Excellence Award 2023	Entrepreneur of the Year Award 2023	NASSCOM Award for Most Promising Emerging Companies 2016	Daimler Excellence in Innovation Award-2018	APAC Insider-Indian Business Excellence Best Self Driving Technology 2017	Frost & Sullivan Award for Most Innovative Product	First Prize National Award for Innovation by Ministry of MSME, Government of India

100+ Customers





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