Unlocking Efficiency and Innovation

Introducing Novus P-Mover™

Your Autonomous Intralogistics Solution

www.novushitech.com | email : marketing@hitechroboticsystemz.com

2023

1000+ Robotic Automation Solutions

2022

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

2021

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

2020

5 Million+ Km Mobile Robot Travel

2019

Cloud Based Analytics

2018

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

2016

Driverless Shuttle Auto Expo

Autonomous Bus

Autonomous Mobile Robot

2015

- *Autonomous Tank*
- *Autonomous Armoured Vehicle for Indian Defence*

2005

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

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.

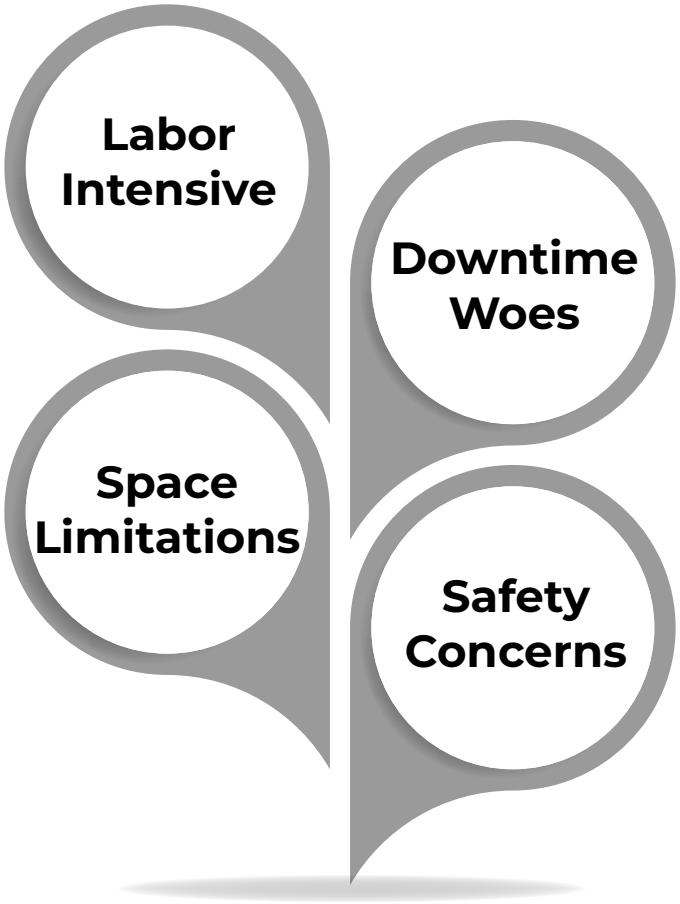
2. STACKER: Seamless Ground-to-Height Movement (1 meter)

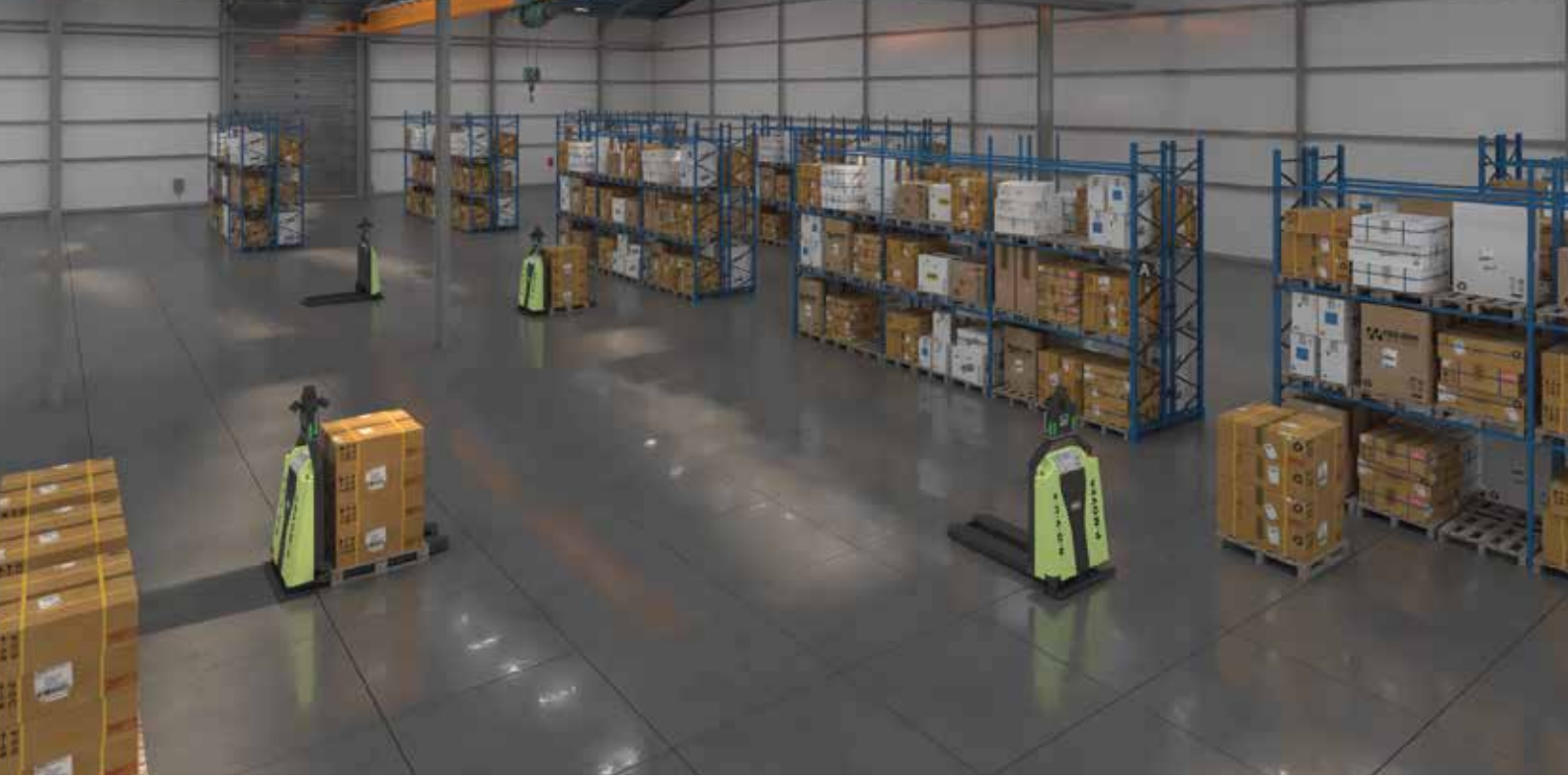
Elevate your possibilities with STACKER – the guardian of vertical space optimization. Witness the seamless lifting of pallet loads and bulk inventory to impressive 1 meter heights. No longer bound by floor limitations, STACKER introduces a new dimension to your intralogistics, maximizing storage and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

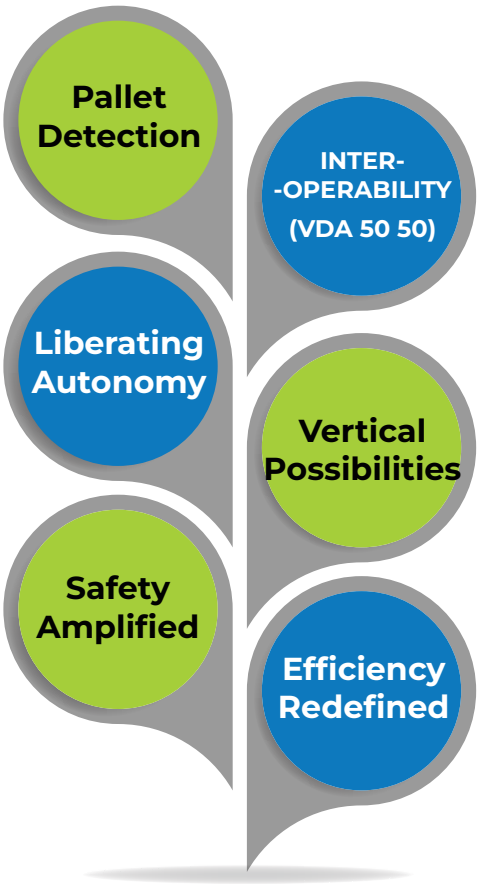




NOVUS P-MOVER™ :

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.

- 2X Productivity
- Increased Safety to 100%
- Increased Efficiency
- Operational Cost Reduction up to 30%
- Picking Accuracy up to 99%
- Optimizes Logistics
- Real time material traceability
- ROI - 24-36 Months

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

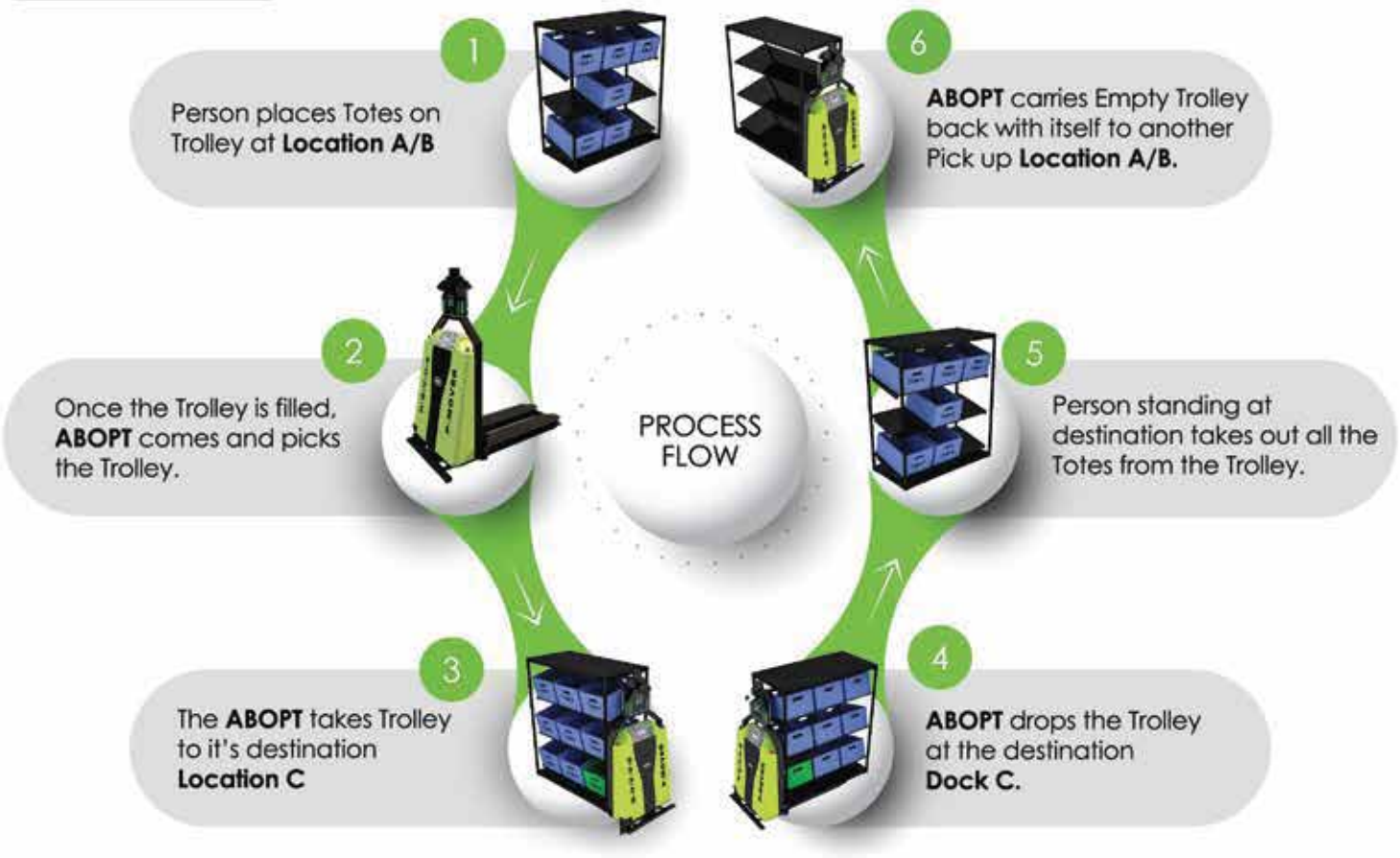
PALLET TRANSFER

GROUND-TO-GROUND

Call / dispatches can be automated by interfacing with **WMS / ERP**

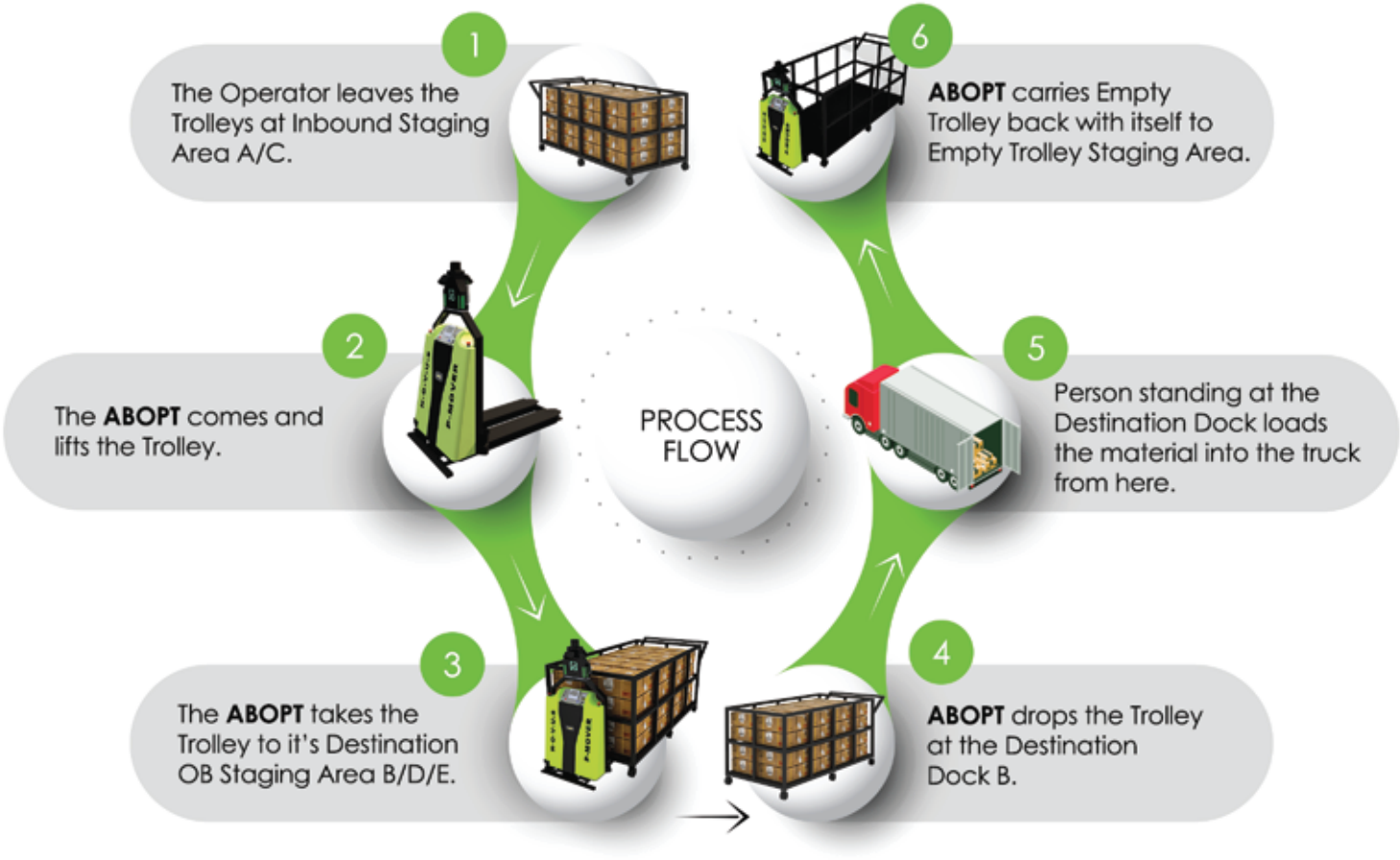
GROUND-TO-GROUND

TRANSFER OF TROLLEY WITH TOTES



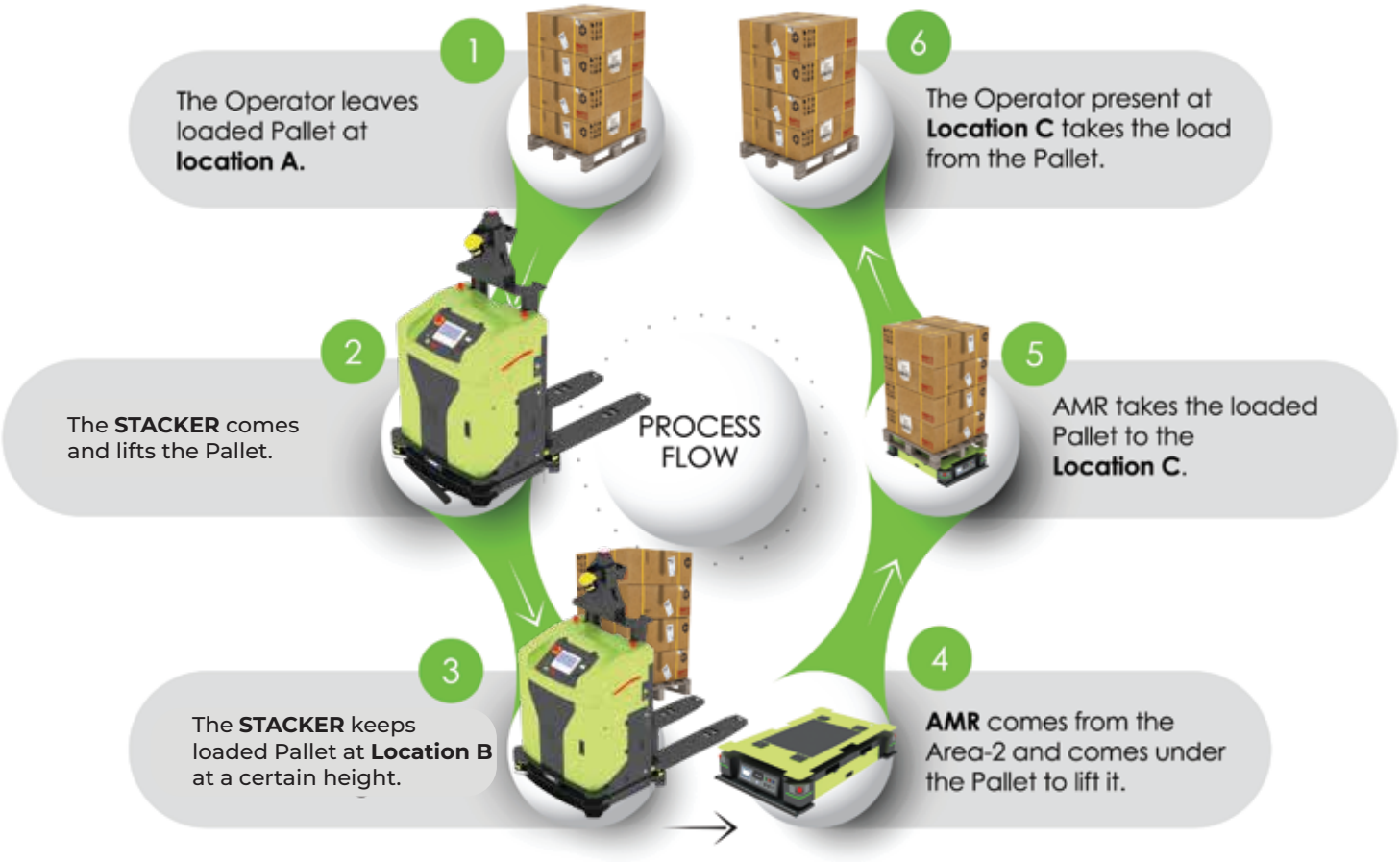
CROSS DOCKING

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

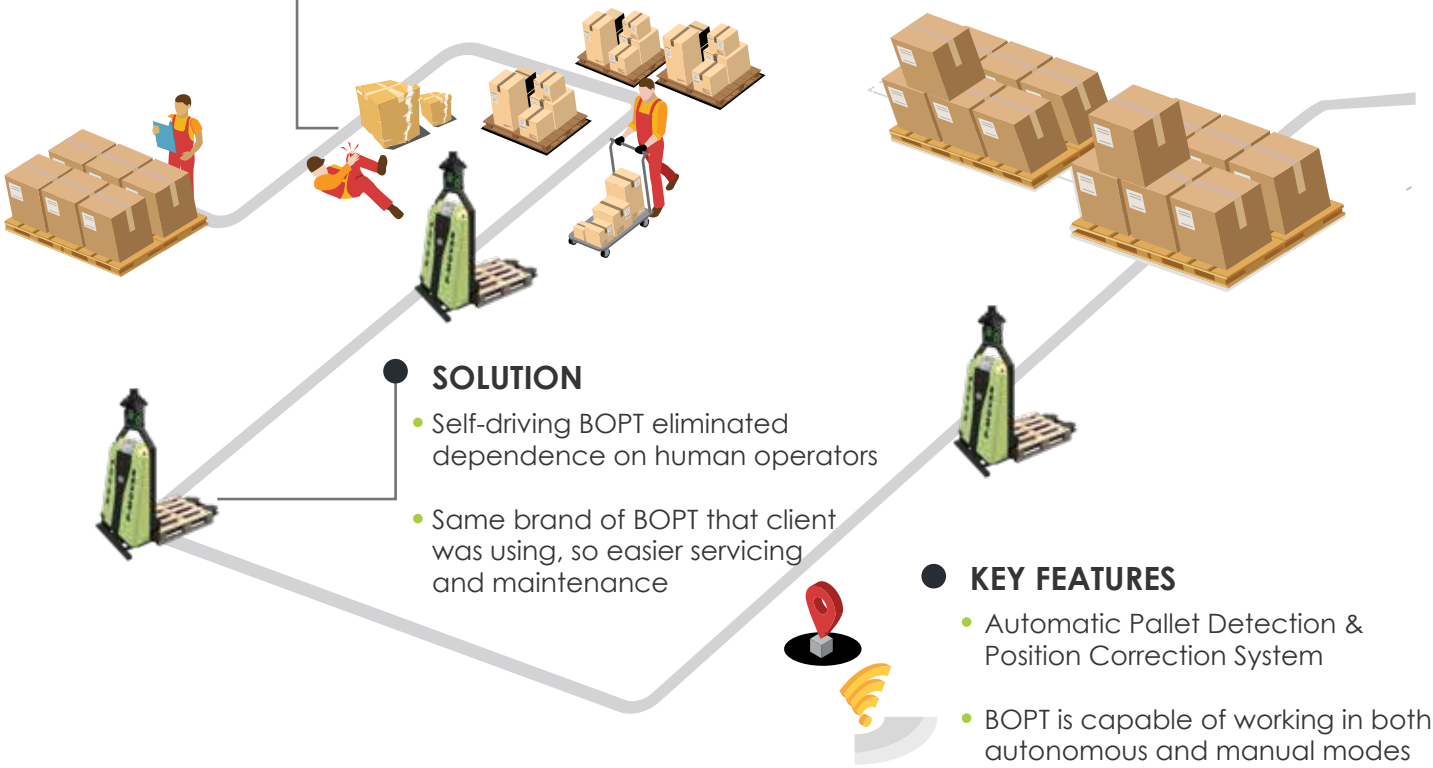
SELF DRIVING ABOPT

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

INDIA'S LARGEST FMCG COMPANY

CHALLENGES EXPERIENCED WITH DEPENDENCY ON HUMAN OPERATORS OF BOPT

- Unavailability of trained operators
- Higher incidents of accidents
- Damage to goods



SOLUTION

- Self-driving BOPT eliminated dependence on human operators
- Same brand of BOPT that client was using, so easier servicing and maintenance

KEY FEATURES

- Automatic Pallet Detection & Position Correction System
- BOPT is capable of working in both autonomous and manual modes

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

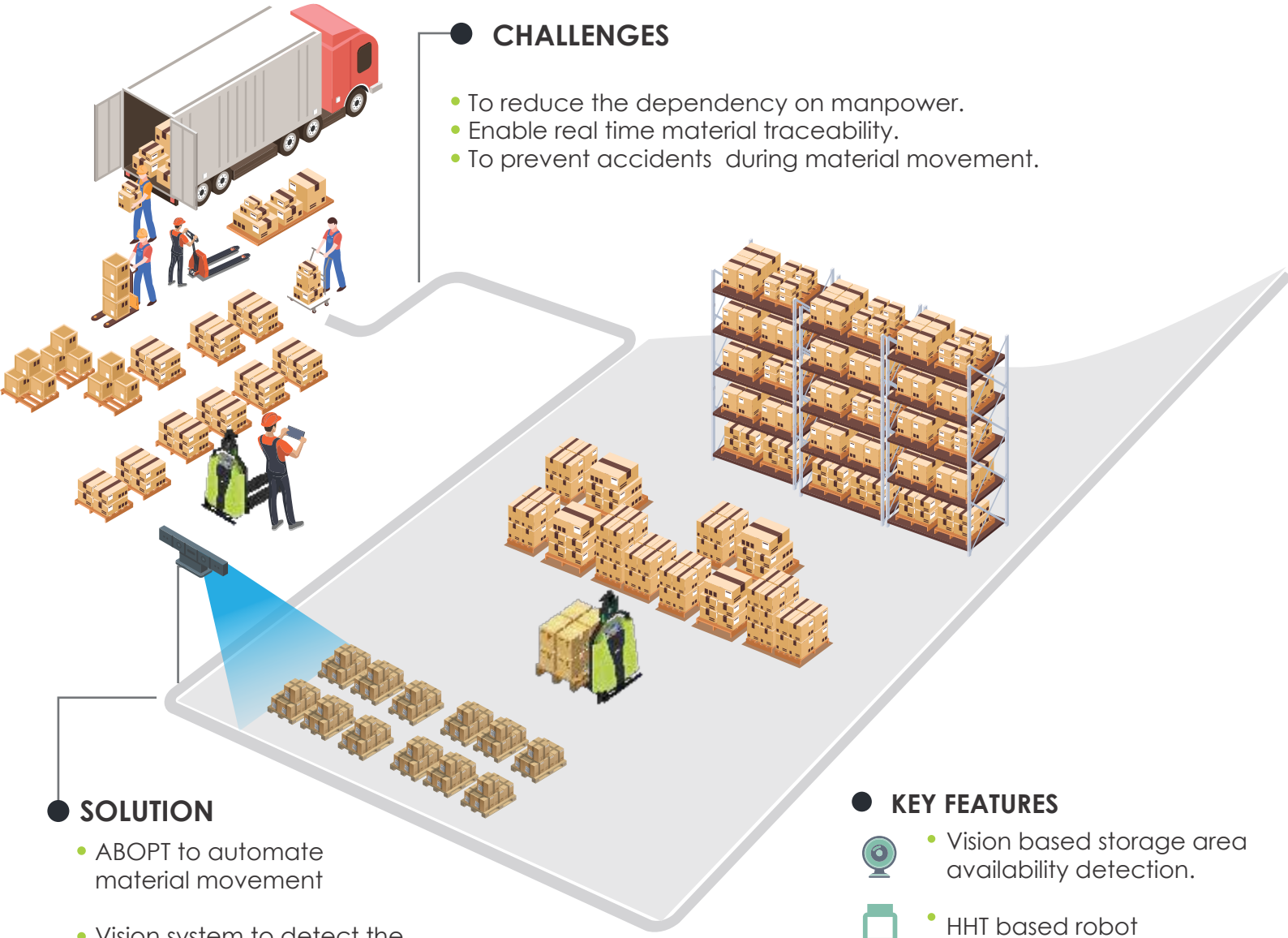
Smoothened operations with no dependency on operators

CASE STUDY

INDIA'S LEADING 3PL COMPANY

SELF DRIVING ABOPT

ABOPT enables material movement from Inbound Staging Area to Storage Area



CHALLENGES

- To reduce the dependency on manpower.
- Enable real time material traceability.
- To prevent accidents during material movement.

SOLUTION

- ABOPT to automate material movement
- Vision system to detect the filled/empty ABOPT drop locations in storage area.

KEY FEATURES

- Vision based storage area availability detection.
- HHT based robot calling/dispatch system.

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
- Better life of pallets in comparesion to Manual handling
- 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

NOVUS HI-TECH

Corporate Office -
Novus Hi-Tech Robotic Systemz Pvt Ltd
A-18 Infocity-1, Sector-34, Gurgaon 122001
Haryana, India
Tel: +91(124)4715300, Fax: +91(124)4715398