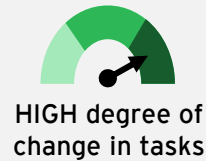


Material Handling Equipment (MHE) Operator/ Forklift Operator/ Warehouse Assistant/ Inventory Assistant

Technology solutions impacting this job...

- Smart Inventory Counting
- Intelligent Robotic Sorting
- Automated Storage and Retrieval Systems (AS/RS)
- Predictive & Prescriptive Maintenance

Impact assessment...



A significant proportion of the job tasks will be substituted by technology solutions, thus minimising or eliminating the need for human intervention

Within **3 to 5 years**, the role will potentially...

UNDERGO DISPLACEMENT

Today, this job role is responsible for manually sorting, routing, and loading and unloading cargo to and from various warehousing or storage locations, and identifying maintenance needs for the safe and efficient operation of material-handling equipment.

Job tasks today	Impact at task-level / Future view of job tasks
Perform loading, unloading, moving, arranging of warehouse cargo	<p>H</p> <ul style="list-style-type: none"> Tasks for stacking, moving and arranging of items on pallets will be automated through use of AGVs, AS/RS & robotic systems. Focus will shift to operating computerised systems, and picking and packing from automated systems. These tasks will further be augmented by use of AR-powered vision-picking or voice-picking solutions.
Perform container stuffing / unstuffing, cargo and material handling	<p>H</p> <ul style="list-style-type: none"> Intelligent robotic sorting solutions will automate the sorting, routing and first level quality checks of standard-sized goods. Cargo-related documents will be digitalised with the use of RPA and optimised documentation solutions. The job holder will be tasked with operating loading and unloading robotic systems, cleaning and maintaining automated systems, electronic labelling, and manually sorting odd-sized items.
Assist in quality improvement activities	<p>H</p> <ul style="list-style-type: none"> Use of automated processes and robotics will ensure adherence to pre-configured quality control parameters and minimise human errors. The focus will shift to intermittent check-ins and oversight to ensure quality and accuracy.
Highlight safety and health risks, report incidents	<p>M</p> <ul style="list-style-type: none"> IoT sensors will provide visibility on impending failures of material handling equipment, forklifts etc., thus eliminating the need for this job role to identify maintenance needs or report incidents. AR will allow annotation of non-compliances and defects at site to provide clarity for rectification works.
In the next 3 - 5 years...	As industry 4.0 technologies automate the manual, labour-intensive tasks, the focus will shift to monitoring operations of, troubleshooting and maintaining automated systems. This role will potentially evolve to roles such as I4.0 Maintenance Specialist/ASRS Operator/ Drone Operator/AGV Operator/Automation Technician or converge with the Coordinator role.

Emerging skills

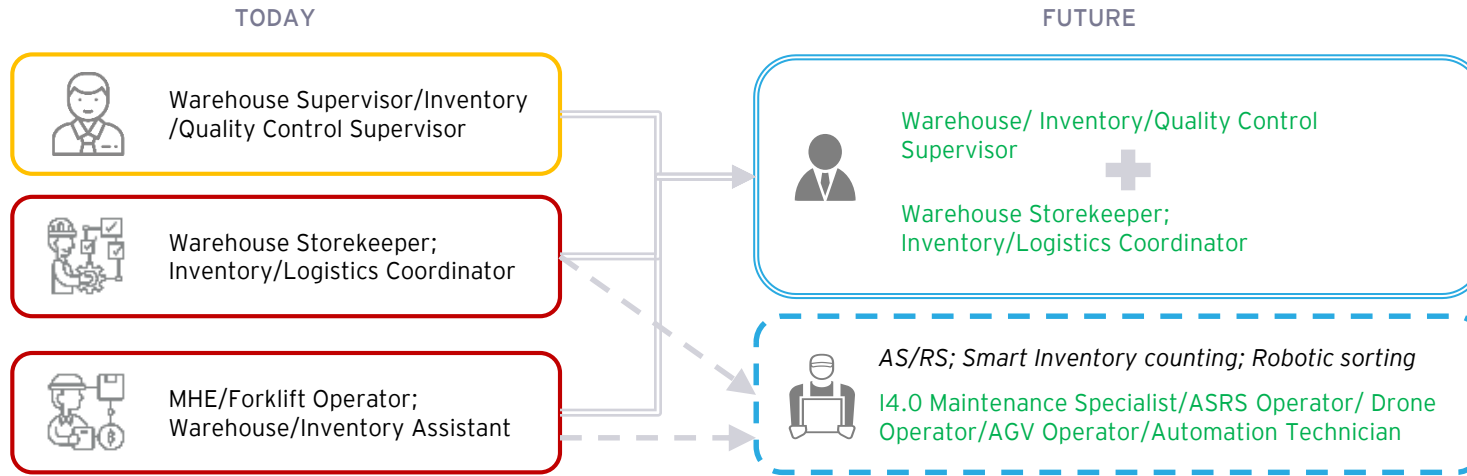
Going forward, these job holders will potentially take on new roles such as I4.0 Maintenance Specialist/ASRS Operator/ Drone Operator/AGV Operator/ Automation Technician. The following skills will be critical:

- Advanced Digital Acumen
- Data Interpretation and Analysis
- Robotic and Automation System Maintenance
- Technology Troubleshooting
- Complex Problem Solving
- Decision Making

Mobility options for displaced workers

- Project Supervisor
- Rigger / Signaller
- Lifting Supervisor
- Dispatch Operator / Transport Operator / Last Mile Delivery Driver / Container Driver
- Incoming Quality Coordinator

Safeguarding employment & employability of workers in roles that will undergo displacement or be redesigned



JOB REDESIGN and UPSKILLING/RESKILLING will prepare workers to take on the future job roles

Dashboards for future view of job roles:

- [MHE/Forklift Operator job role](#)
- [Warehouse Storekeeper](#)
- [Warehouse Supervisor](#)

Dashboard for new job role

- [I4.0 Maintenance Specialist job role](#)

Job roles that will undergo displacement	Redeployment opportunities within the logistics sector			Redeployment opportunities outside the logistics sector
	Mobility to newly created job role	Vertical mobility within the same function	Horizontal/diagonal mobility to different job function (top 3)	
MHE/Forklift Operator; Warehouse/Inventory Assistant	<ul style="list-style-type: none"> I4.0 Maintenance Specialist/ASRS Operator/ Drone Operator/AGV Operator/Automation Technician 	<ul style="list-style-type: none"> Warehouse Supervisor / Inventory Control Supervisor / Quality Control Supervisor 	<ul style="list-style-type: none"> Project Supervisor Rigger / Signaller / Lifting Supervisor Dispatch Operator / Transport Operator / Last Mile Delivery Driver / Container Driver 	<ul style="list-style-type: none"> Mobility to similar job functions or job roles requiring similar skills in other sectors
Warehouse Storekeeper; Inventory/ Logistics Coordinator	<ul style="list-style-type: none"> I4.0 Maintenance Specialist/ASRS Operator/ Drone Operator/AGV Operator/Automation Technician 	<ul style="list-style-type: none"> Warehouse Supervisor / Inventory Control Supervisor / Quality Control Supervisor 	<ul style="list-style-type: none"> Health, Safety and Environmental Coordinator Project Supervisor Lifting Supervisor 	