JENDAMARK
TECH | PEOPLE

WE BUILD MACHINES

Helping You Produce the Goods

Smarter. Faster. Safer

Start Slides

JENDAMARK GROUP

GROUP STRUCTURE


JENDAMARK GROUP WORLDWIDE

Quinton Uren ● Siegfried Lokotsch ● Graeme van Zyl ● Yanesh Naidoo


SOUTH AFRICA (HQ)
Quinton Uren

Sales, design, manufacture, assembly, commissioning, & service

INDIA
Siegfried Lokotsch
Himanshu Jadhav

Sales, design, manufacture, assembly, commissioning & service

GERMANY
Siegfried Lokotsch
Rudi Weber

Sales, services, purchasing & project management

USA
Siegfried Lokotsch
Waldo Kleinhans

Sales, services & project management

Port Elizabeth, South Africa

Technology Center
Port Elizabeth, South Africa

Pune, India

About Jendamark

We have built 3000+ automotive assembly systems

Est. **1989** | **800** employees | **100+** Global Customers | Solutions delivered to **35+ Countries**

4 global offices: **South Africa (HQ) | India | Germany | USA** **2** Service & Support Partners: **China | Mexico**

3 Divisions: **Automation | Digital Manufacturing | Digital Education**

Turnkey Assembly lines

Design | Manufacture | Commission | Install

Powertrain, EV, Catalytic Converter, Auto Components

DIGITAL MANUFACTURING

ODIN MANUFACTURING

Digital solutions to enhance human efficiency and performance.

DIGITAL EDUCATION

ODIN EDUCATION

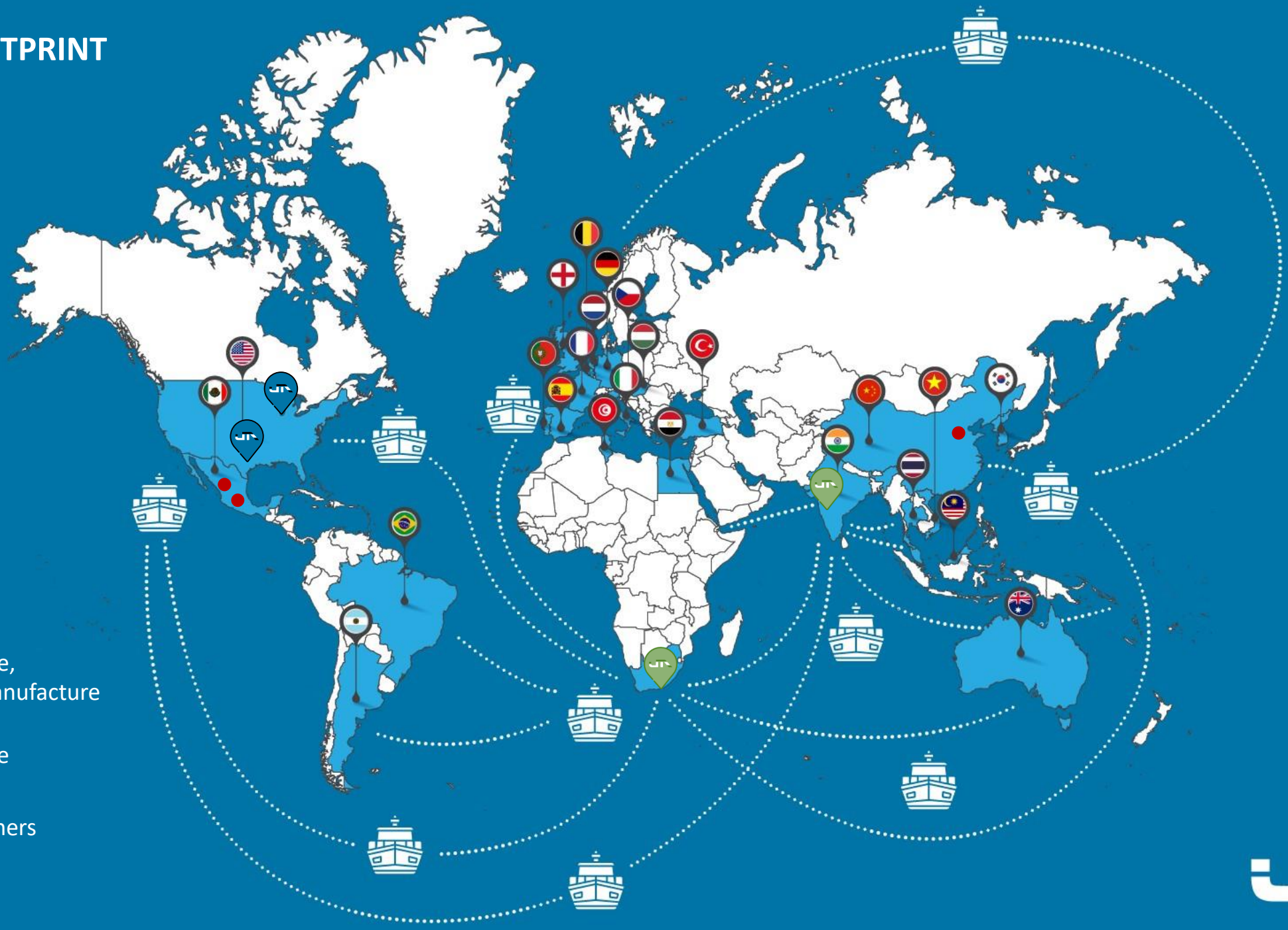
The digital education system for all schools, rich and poor.

Our Global Customers

Mercedes-Benz, BMW, Volkswagen, Audi, Ford, Mahindra, Škoda, Ashok Leyland, Boeing, Bentley, Tata, rexroth A Bosch Company, Hero, Electra EV

ZF, Tenneco, ThyssenKrupp, Dana, faurecia, Benteler makes it happen, Borbet, Cummins, Purem by Eberspächer, Sharda, Smiths Manufacturing (Pty) Ltd, dinex

GLOBAL FOOTPRINT



Sales, Service,
Design & Manufacture

Sales, Service

Service Partners

TURNKEY AUTOMOTIVE COMPONENT ASSEMBLY LINES

CUSTOMER JOURNEY

Jendamark Automation continues to drive forward-thinking assembly lines with a focus on cost-effectiveness, quality, sustainability and efficiency.

From first contact to after-sales support, our team ensures customers get the specialised machines and service they need.

EXPERT TECHNOLOGIES

- **Press in Force** (multi-stage press in processes)
- **Tightening** (Torque/Angle & Yield Point)
- **Gauging**
- Lasor **non-contact gauging**
- **Leak Testing** (flow/pressure decay)
- Dynamic **gear backlash gauging**
- Dynamic **bearing friction gauging**
- Total **torque to turn**
- **Robotic Sealant application** (RTV)
- **Automatic guided vehicles** (AGV)
- **Rail-guided vehicles** (RGV)
- **Conveyer** and/or Trolley transport systems
- **Process planning** and cycle time assessments
- **Traceability**, product tracking
- Automatic and Manual **part handing**

Our Story of becoming
The African Technology Company
of the year 2022

africa tech week WINNER 2022 — TECHNOLOGY COMPANY OF THE YEAR

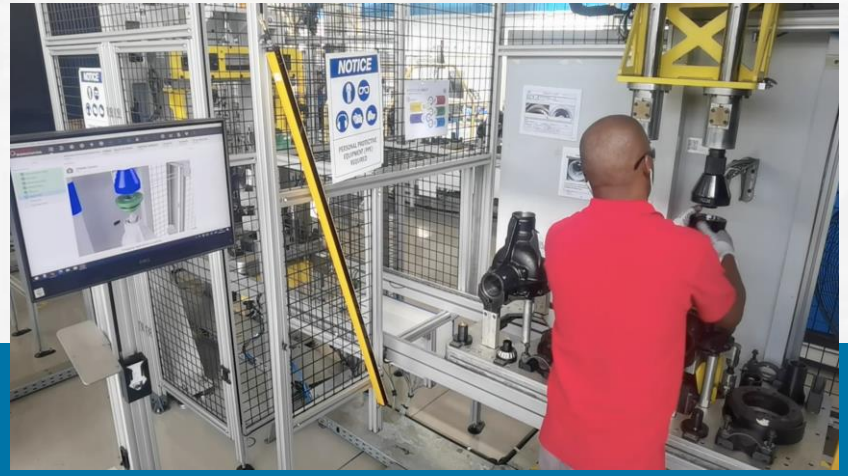
MANUAL TO FULL AUTOMATED

Jendamark strives to develop the right fit for your market, offering a range of manual, semi-automated and fully automated solutions to ensure unmatched precision and repeatability.

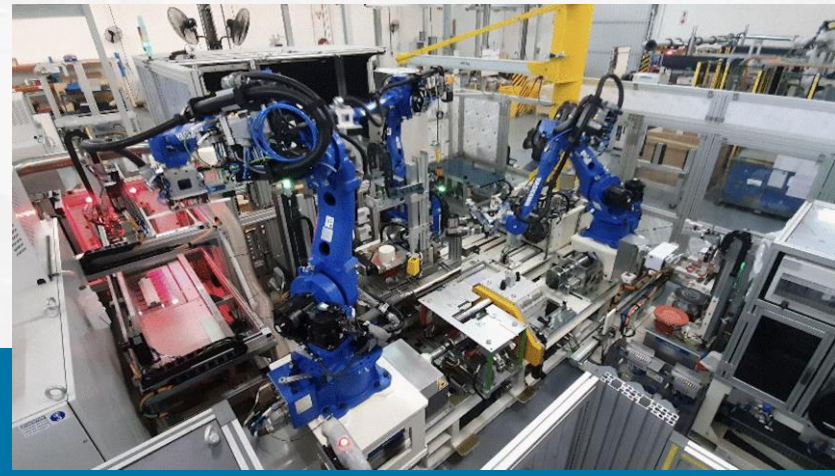
We have delivered on every level of complexity – from a fully manual engine assembly line in India to a lights-out catalytic converter assembly line in Germany.

MANUAL

SEMI-AUTOMATED



FULL AUTOMATED

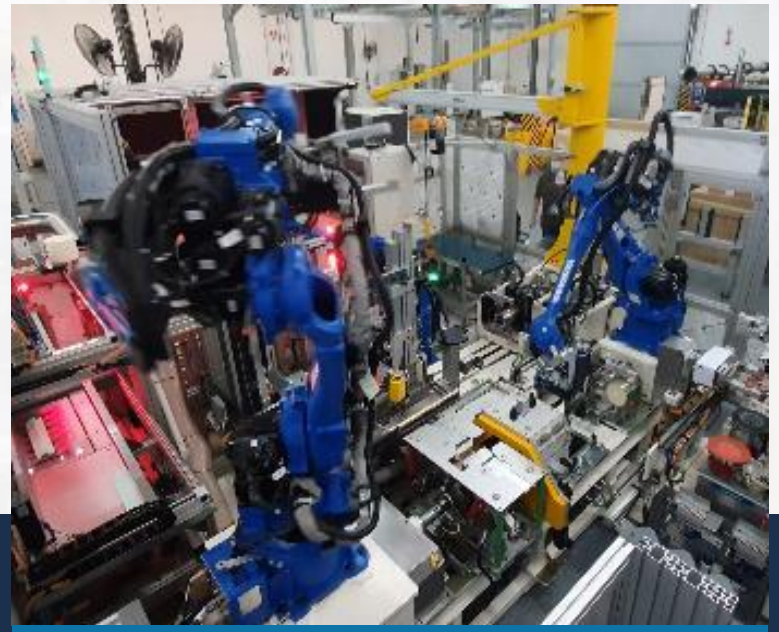


Your One-Stop Shop for Turnkey Assembly Solutions

TURNKEY ASSEMBLY LINES

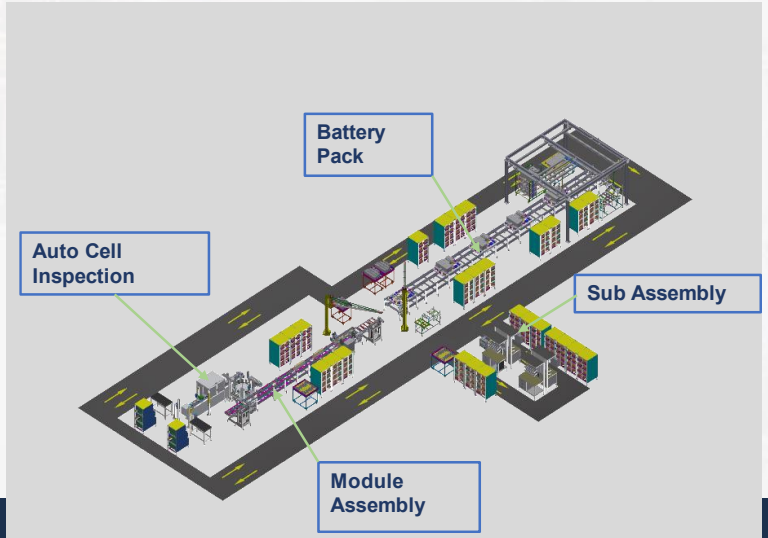
Jendamark Automation is advancing innovative assembly lines, emphasizing cost-effectiveness, quality, sustainability, and efficiency.

From the first contact to after-sales support, our team ensures that customers receive the specialized machines and services they need.



Catalytic Converter
Canning and Assembly Lines

Automotive Module Assembly
Engine, Axle, Differential, Seat, and Cockpit etc. Assembly Lines



Electric Vehicle
EV Module Assembly
Battery, Motor, Inverter, MCU, Hydrogen

Our Story of becoming **The African Technology Company** of the year 2022

TECHNOLOGY COMPANY OF THE YEAR

ICE VEHICLE COMPONENTS

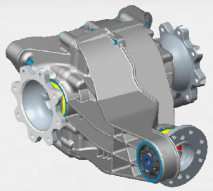
Jendamark specializes in vehicle component assembly lines. Each specialised machine and automotive component assembly system is designed and built to meet specific customer requirements, emphasizing cost-effectiveness, quality, efficiency, and sustainability.

Our Expertise ranges from: Powertrain, Catalytic Converter and General Assembly

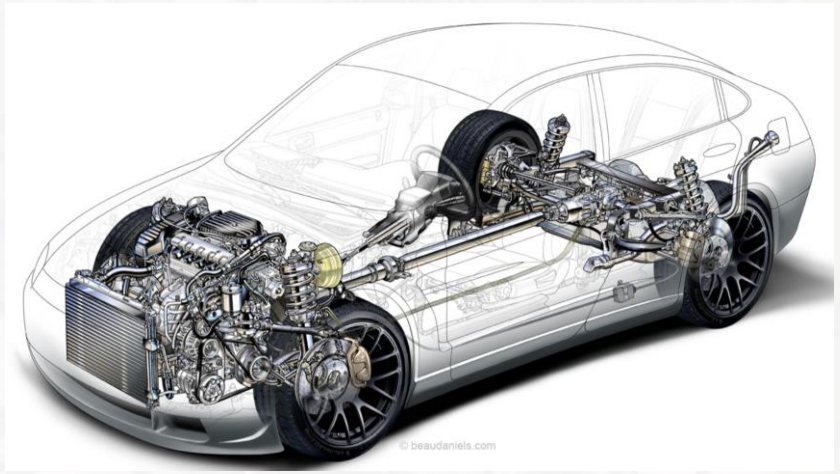
Powertrain

Engine

Front and Rear Axle



Differential

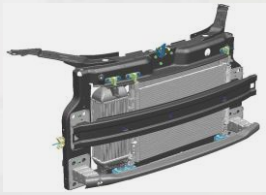


General Component Assembly

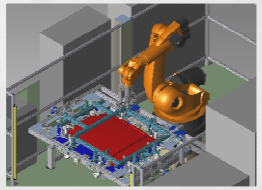
Cockpit

Seat

HVAC



Radiator & Front End



Glass and Component Gluing

Catalytic Converter

Catalytic converter (Canning)

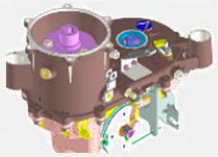
Catalytic converter Box (Assembly)

ELECTRIC VEHICLE COMPONENTS

Based on 30+ EV component assembly lines, Jendamark is developing a generic set of building blocks for all EV customers. These building blocks will ensure our customers remain flexible and agile in this changing EV market.

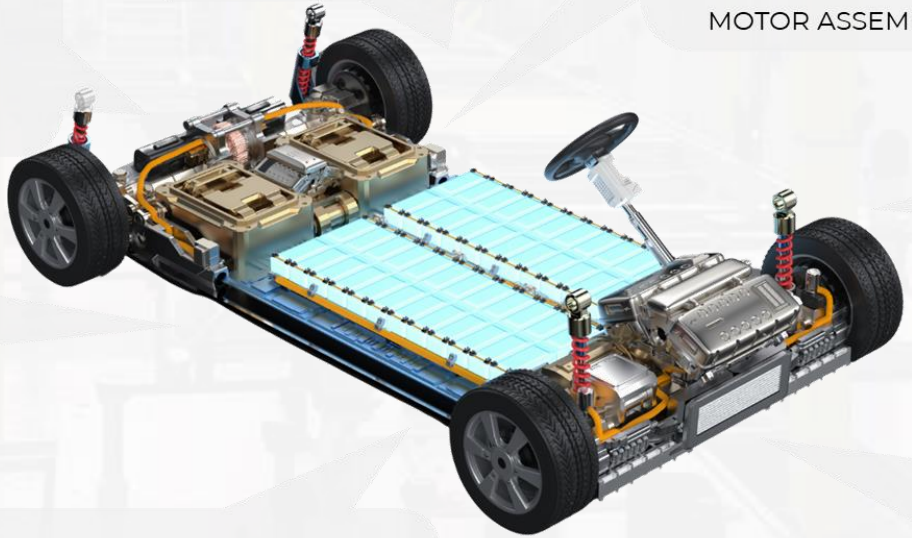
Our Expertise range from: Battery Packs & Modules, Gearboxes, Motor Rotors, Inverters, Electronic Control Units (ECUs),Microcontroller Units (MCUs) & E-Axle Assemblies

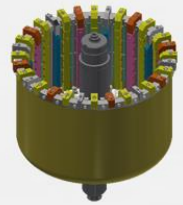
BATTERY PACK ASSEMBLY



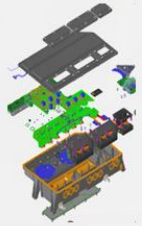
GEARBOX ASSEMBLY

MOTOR ASSEMBLY





ROTOR ASSEMBLY



INVERTER ASSEMBLY

MCU/VCU

AXLE ASSEMBLY

"LEGO BLOCKS"
FOR ASSEMBLY LINES

CUSTOMERS REQUIRE STANDARD BUT FLEXIBLE ASSEMBLY LINES

Let's make your customised "LEGO" blocks.

We recognize that selecting a supplier for an assembly line can be daunting. While many machine builders are capable of producing high-quality machines. However, a long-term view is not considered because projects are once-offs. Additionally, the knowledge and experience gained from previous projects are often overlooked in subsequent ones. To address this issue, we adopt our **building blocks methodology** that has helped our clients save resources, mitigate risks, and, most importantly, avoid the stress and anxiety that can arise during various project phases.

In these developments, we consider the customer's immediate and long-term goals with insight from their teams to build the most modular and flexible machines that can be configured and reconfigured to meet the different global production demands.




"The first project we develop the standard machines, thereafter we fix the base design and base pricing. We save significant time, effort and money"

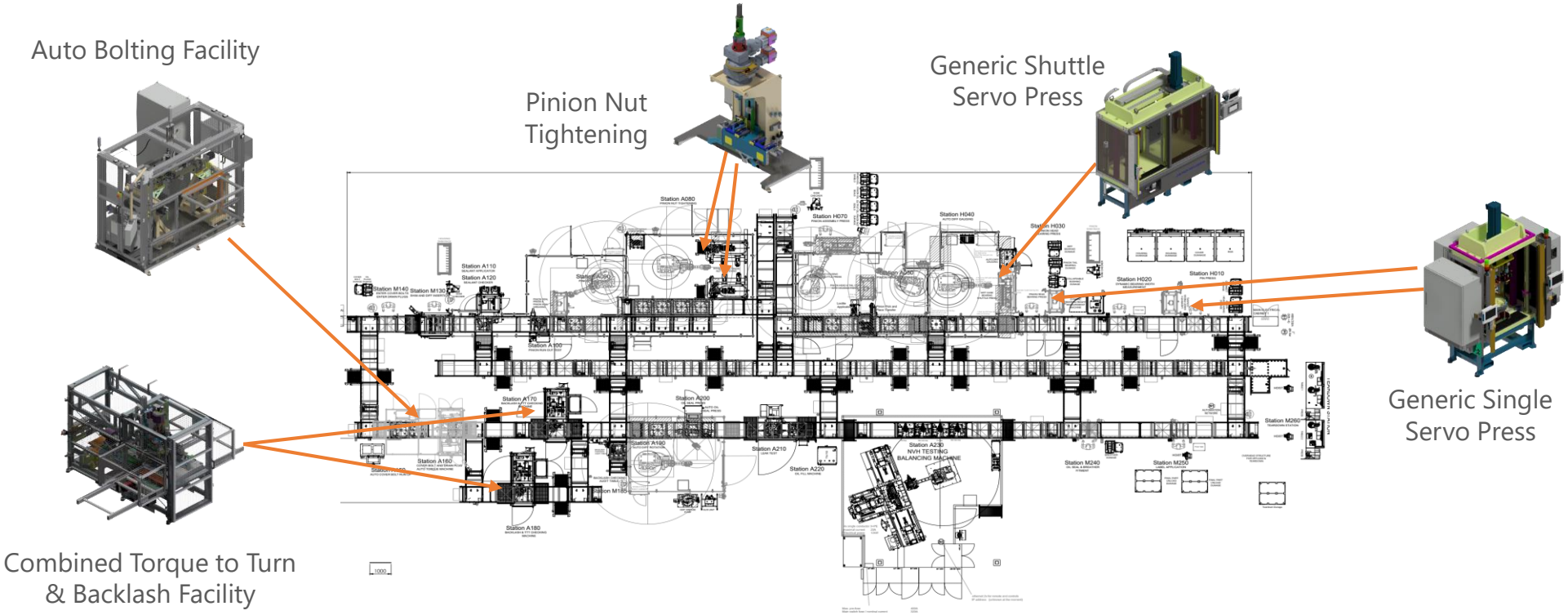
Global Tier 1 Global Planning Manager

ONCE WE HAVE BUILDING BLOCKS

Focus can now be on optimising essential line-specific requirements such as layout, cycle time, floorspace and headcount.

Our Building Blocks Methodology involves creating customised "LEGO" blocks for our clients. We develop our first assembly lines to standardise critical machines and processes. This approach enables our clients' experts and Jendamark experts to work together toward a shared goal of achieving long-term standardisation. Avoiding “short-term” thinking prevents technical and commercial decisions that cost more in the long run. By focusing on the long term, we can establish a set of machines and processes that serve as the standard building blocks for all future assembly lines.
Once the building blocks have been established, they can be used to design the assembly line knowing that the critical machines and processes are fixed. The focus can now be optimising essential line-specific requirements such as cycle time, floorspace and headcount.

Differential Assembly line built with BUILDING BLOCK machines developed by Jendamark



BY STANDARDISING MACHINES, WE CAN ACHIEVE THE FOLLOWING:

Reduced design time – A standard machine will require minimum design resulting in a reduced cost and quicker release time. Machines can be configured into various levels of automation.

More time - Available to optimise layouts, ergonomics and logistics planning results in long-term savings that would otherwise go unidentified

Increased machine reliability – Machines will be tried and tested. Improvements can be made in a controlled manner where the risk of changes is understood and managed.

Reduced operator and technician learning curve – Customers, once familiar with the standard machine, will not have to relearn a new machine for each new project

Decreased installation & faster ramp-up time – Due to familiarity, machines will be installed and commissioned faster.

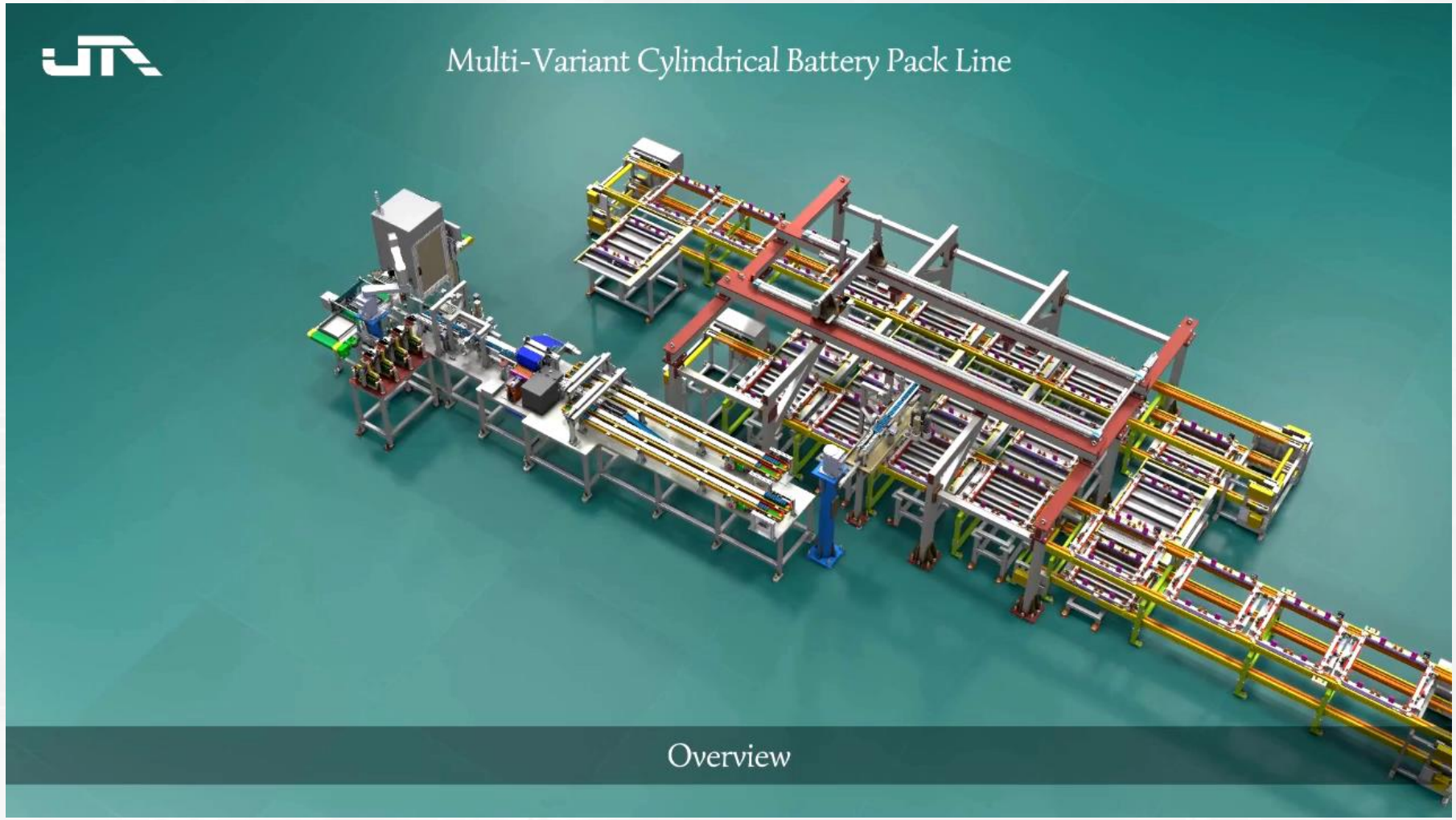
Built up a stock of machines – It will be possible to build up a store of standard machines to supply our customer with a machine within weeks of requesting it.

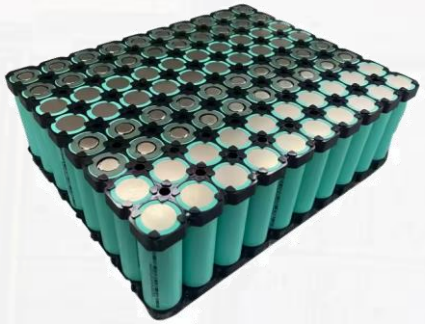
Process Standardisation – Process experts from HQ can manage, implement and deploy standardised assembly processes globally from a central planning team.

TURNKEY ASSEMBLY LINES

BATTERY CELL SORTING AND PACK ASSEMBLY

6000 cells per hour sorting and module assembly machine

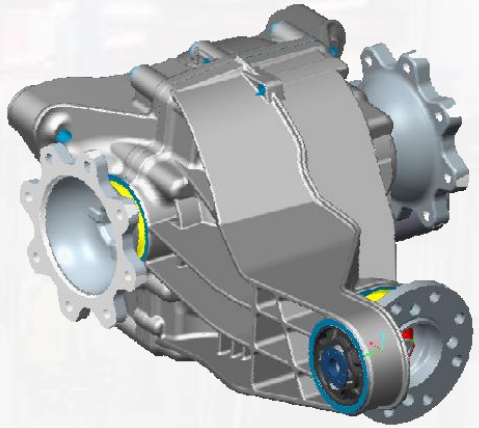




(video link)

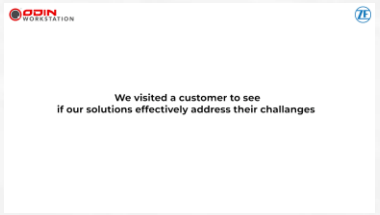
AUTOMATION SOLUTIONS

HIGH VOLUME DIFFERENTIAL ASSEMBLY LINE



Time-lapse over 8 months during line commissioning

(video link)



How ODIN Workstation helps improve training and 5s

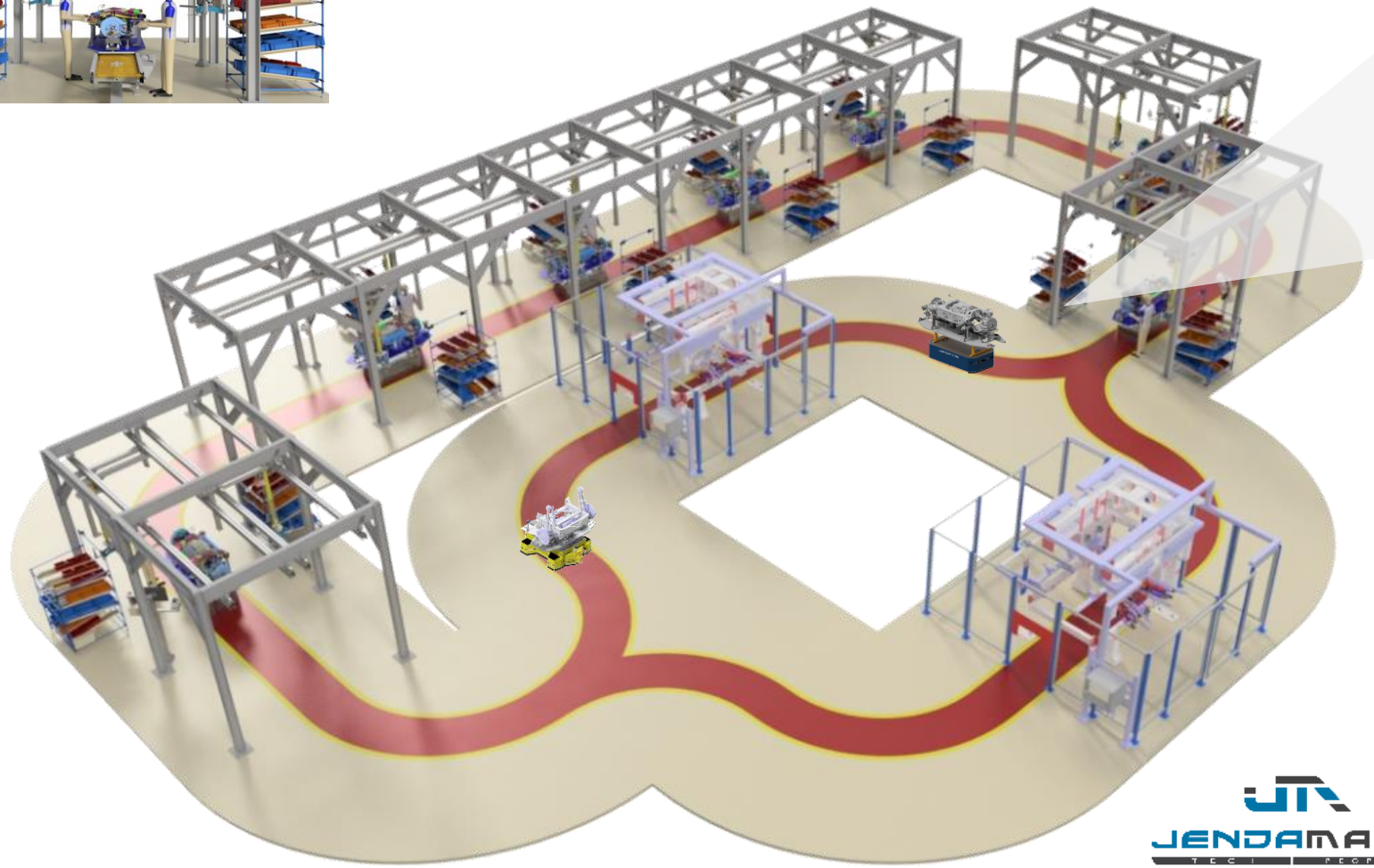
(video link)

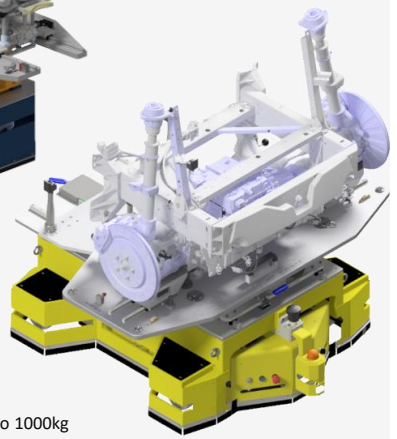
ODIN WORKSTATION

JENDAMARK TECH PEOPLE

Jendamark Transport systems

Axle assembly line example with AGV's





- **CARRYING/ TOWING CAPACITY**
  - Overhead Carry up to 1000kg
  - Towing capacity up to 1200kg (trolley)
- **NAVIGATION METHOD**
  - Optical Line Following Navigation
- **SPEED**
  - Variable Speed with a maximum of 1.3m/s
- **POWER PACK OPTIONS-**
  - Ultra Capacitor/Battery Hybrid
  - Battery only
- **COMMUNICATION**
  - Industrial Wi-Fi communication to the fleet manager
- **SWING ARM SUSPENSION**
  - This allows the drive wheel to always be in contact with the ground.

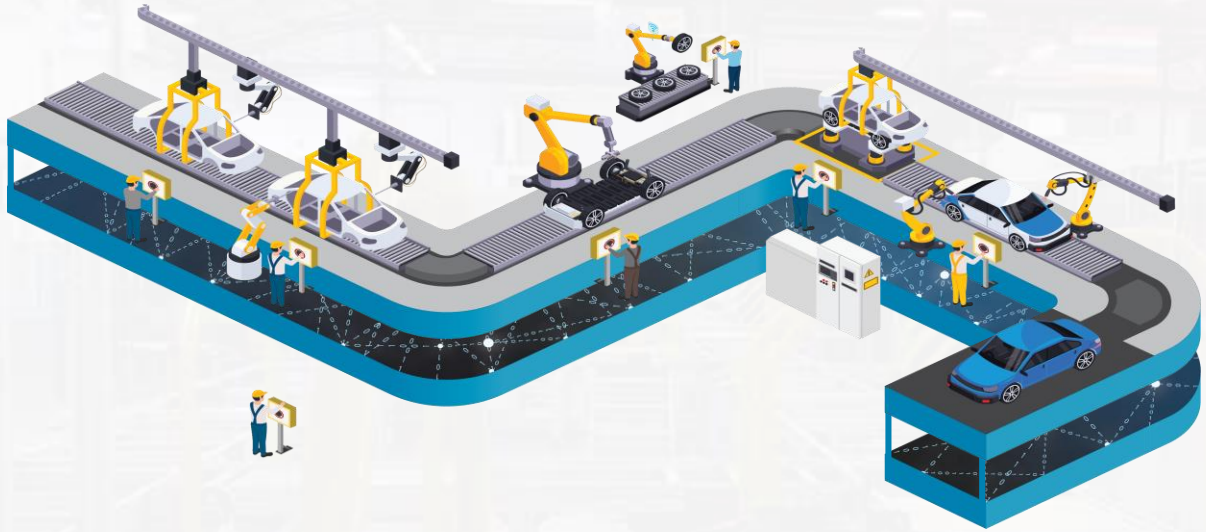
JENDAMARK

DIGITAL TECHNOLOGY THAT IMPROVES HUMAN PERFORMANCE

ODIN MANUFACTURING
A JENDAMARK ECOSYSTEM

AFTER BUILDING OVER 3000+
ASSEMBLY SYSTEMS

JENDAMARK
TECH | PEOPLE



WE RECOGNISED THE NEED FOR A COST-EFFECTIVE,
EFFICIENT SOLUTIONS TO DIGITISE YOUR
SHOP FLOOR

ODIN
MANUFACTURING
A JENDAMARK ECOSYSTEM

The African Technology Innovation of the year 2023

africa tech week AWARDS 2023
WINNER 2023
TECHNOLOGY INNOVATION OF THE YEAR

THREE PRODUCT FAMILIES

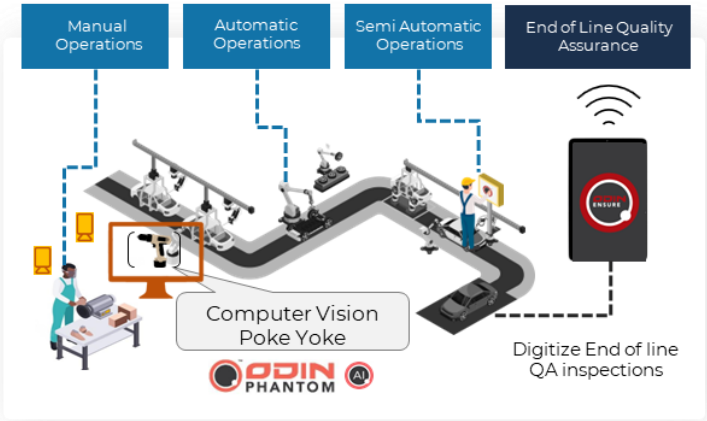
click

ODIN MANUFACTURING
A JENDAMARK ECOSYSTEM

ODIN WORKSTATION

A digital backbone on which you can build your discrete manufacturing assembly line.

AI-Enabled Worker Guidance and Data-driven MES



click

On Premise

Add on products:

ODIN INSIGHTS — *Analytics that matter*

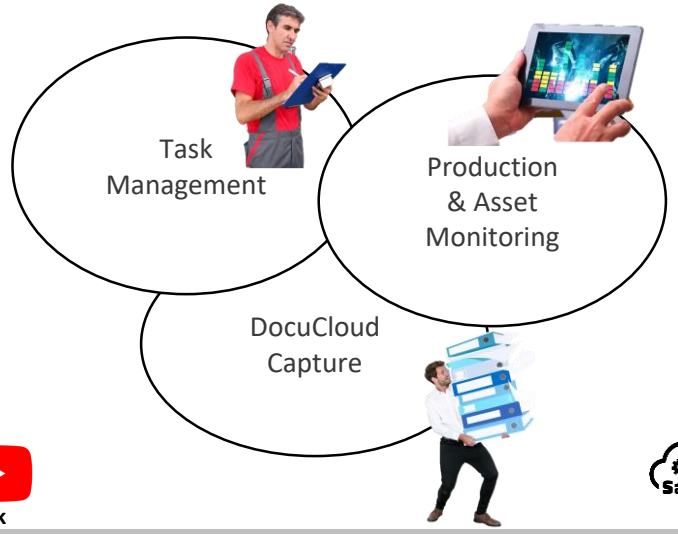
ODIN PHANTOM — *Digital Poke Yoke using computer vision (CV)*

ODIN ENSURE — *Digital End of Line Quality Assurance*

ODIN CHECKPOINT

Live Task and Production Management to better connect your shop floor to top floor.

Making your operations, smarter.



click

SaaS

Add on products:

ODIN RAVEN

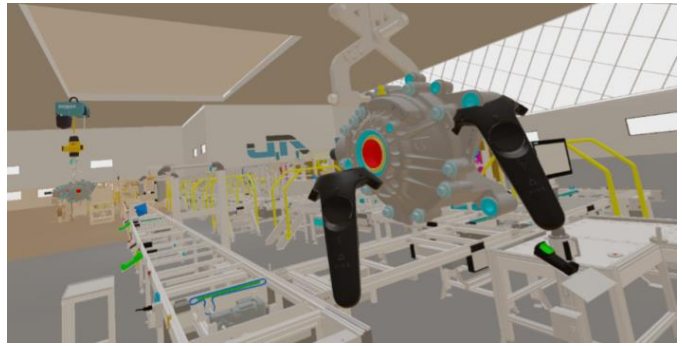
IIOT vibration sensor that monitors your machine health and performance

click

ODIN VR

An immersive experience to identify and avoid ergonomic, safety and sizing problems on your production line before it comes to life on your assembly floor.

A Virtual Reality Environment to Optimise Your Training



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SaaS

Features:

- Virtual Reality Equipment Training
- 3D Machine Design
- Customised Content Development
- Local Line Planning
- Voice Guided Training
- Learning Management System

THREE PRODUCT FAMILIES

ODIN MANUFACTURING
A JENDAMARK ECOSYSTEM


ERROR-PROOF
YOUR ASSEMBLY LINE
ODIN
WORKSTATION
Assembly Line OPERATION SYSTEM

ODIN WORKSTATION

Reference Sites

70+ Production lines

17 Global customers

PRODUCT
Data from over 5 million automotive products manufactured

PEOPLE
Data from 750 operators and 45 process engineers using ODIN Workstation

MACHINE
Managed and collected data collected from over 10 000 devices (7 000 sensors, 350 electronic bolting tools, 100 electronic presses)

Customers using ODIN Manufacturing apps

ODIN WORKSTATION | ODIN PHANTOM | ODIN ENSURE | ODIN INSIGHTS

GLOBAL OEMS

Audi
Mahindra
ERKUNT
FORCE MOTORS
Mercedes-Benz
ŠKODA
TATA AUTOCOMP SYSTEMS
Enabling Mobility Solutions
ASHOK LEYLAND

ELECTRIC VEHICLES

Mahindra electric
DANA
TM4
TRONTEK
ELECTRA EV
Hero
PHYNTELLIGENCE
TORK MOTORS
HANON SYSTEMS

GLOBAL TIER 1 & 2'S

DANA
AUTOCAST FERROUS
ZF
PUREM by Eberspächer
TENNECO
ATLANTIS (Pty) Ltd FOUNDRIES
dinex

GENERAL MFG & EDUCATION

BHARAT FORGE
KALYANI
MIT-WPU
Dr. Vishwanath Karad MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS
TWIMS
TOYOTA WESSELS INSTITUTE FOR MANUFACTURING STUDIES
CSIR
our future through science
C4i4 LAB
CENTRE FOR INDUSTRY 4.0

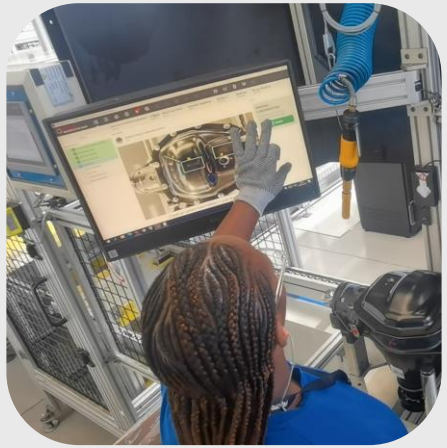
The Assembly Line Realities – Key Challenges

- **High Training Costs & Operator Errors**
  - Constant retraining required due to high operator turnover.
  - Errors in manual processes leading to rework and waste.
- **Inflexible Assembly Lines**
  - Difficulty adapting to product variations and customizations.
  - Inefficiencies in multi-variant and Just-In-Sequence production.
- **Poor Process Visibility & Lack of Traceability**
  - Limited real-time insights into assembly line performance.
  - Challenges in meeting compliance and audit requirements.
- **Quality Control & Defects**
  - Inconsistent quality due to human error and lack of standardization.
  - The increased cost of poor quality and recall risks.
  - Poor management of the process failures and deviation
- **Disconnected Systems & Data Silos**
  - Lack of integration between machines, ERP systems, and human operators.
  - Inability to leverage real-time data for continuous improvement.
- **Inefficient Operator Engagement & Productivity**
  - Difficulty in tracking and optimizing operator performance.
  - Low engagement due to lack of intuitive digital tools.
- **Production management is reactive and not proactive**
  - The general mindset is to spend time and effort on understanding what has happened in the past rather than preventing issues in the future
  - Limited data and algorithms that help production management make better decisions to prevent problems

Animated

WORK

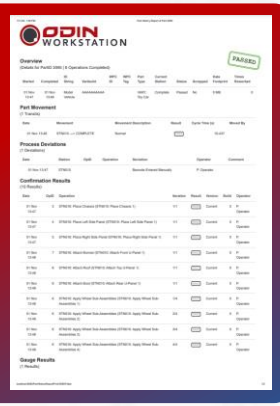
Instructions



Product & Process

GENEALOGY

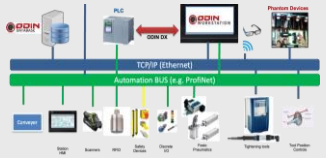
Reporting

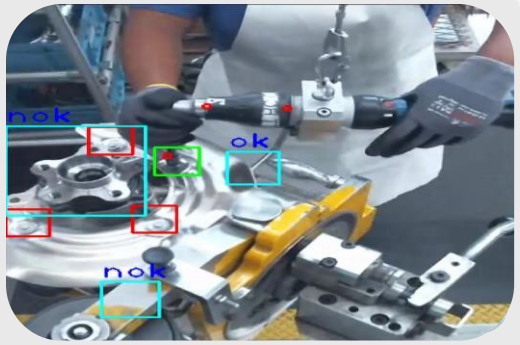


Deep

HARDWARE

Integration

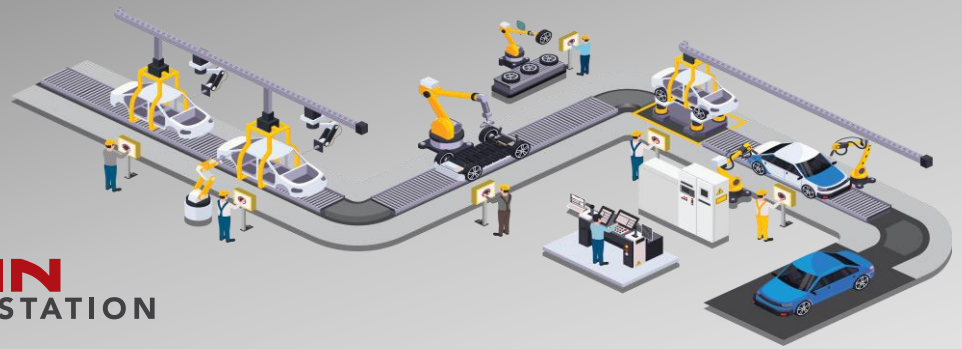




AI VIRTUAL

Devices

Assembly line **OPERATING SYSTEM**



ODIN WORKSTATION

No Code

PROCESS

Setup

JIT/JIS

MULTI-PRODUCT

Assembly

Out of Process

SCHEDULED

Tasks

End of Line

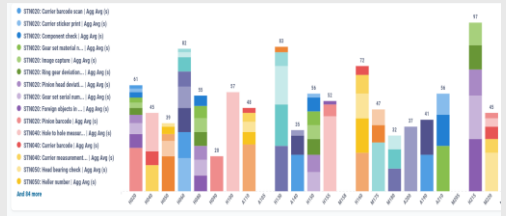
INSPECTION

App

Smart Analytics for

DATA-DRIVEN

decisions



Integrated

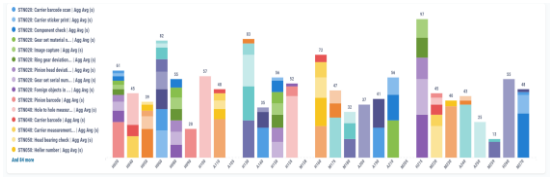
REWORK

& Teardown

System Overview

ODIN WORKSTATION

ODIN INSIGHTS



ODIN AI Service

Anomaly detection

Prescriptive manufacturing

Agentic AI

Conversational AI

Generative AI

APP STORE for FACTORIES

AI Model | Cycle time | Fore-casting

Unified Name Space (UNS)

ODIN WORKSTATION

"google maps for operators"

LINE PLANNING

- Product Data (BOM)
- Process Data (BOP)
- Multi-variant
- Product Routing
- No-Code setup

SMART WORKER GUIDANCE

- Animated instructions
- Steps linked to hardware input to ensure process compliance
- Self-setup of WI

QUALITY ASSURANCE

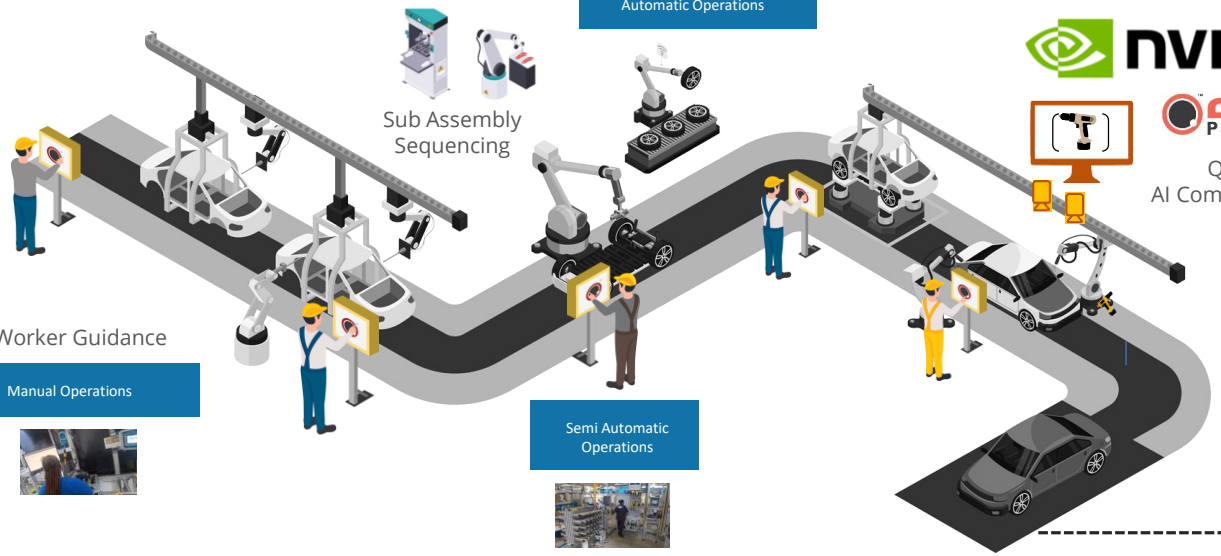
- Process steps and results recording traceability and reporting
- Recording of process deviations
- Component and batch scanning
- Rework Management

HARDWARE INTERGRATION

- PLCs (Siemens, AB)
- Bolting tools (Bosch, Atlas Copco)
- Barcode scanner/printer
- RFID
- Pick2Light

ODIN INSIGHTS

Production Insights - ANDON



NVIDIA

ODIN PHANTOM

QA with AI Computer Vision

Digital Pick2Light & Buttons

Bolting tool position control

ODIN ENSURE

End of Line Quality Assurance

Digitize End of line QA inspections

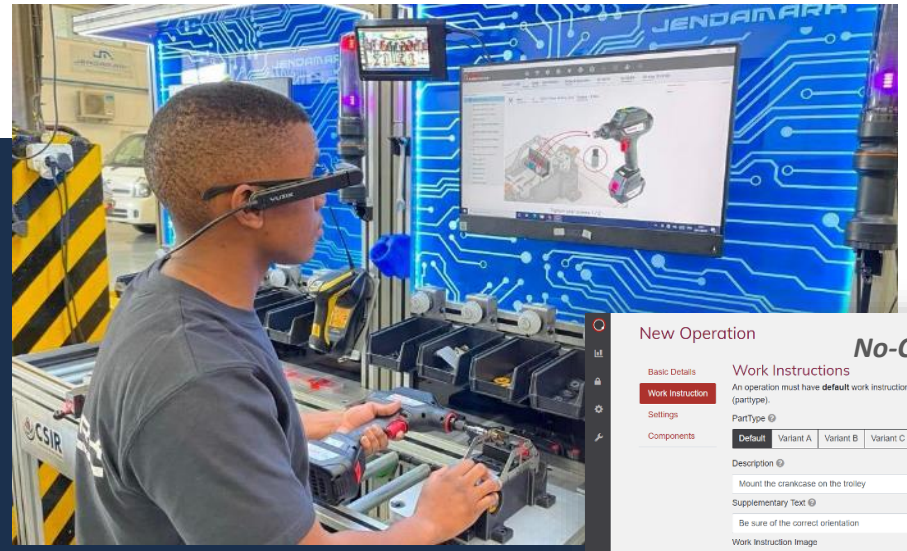
ODIN WORKSTATION

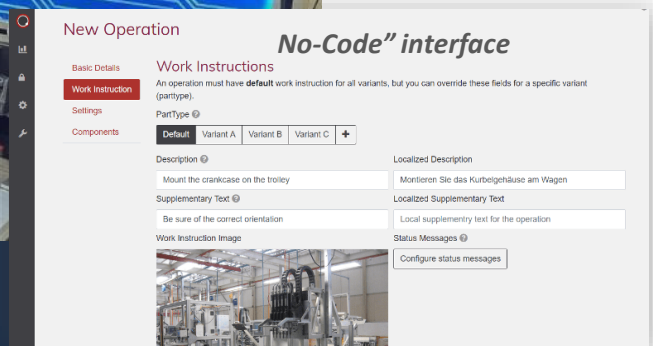
A digital backbone on which you can build your discrete manufacturing assembly line

ODIN Workstation is a digital infrastructure solution that increases efficiencies on your production line. Its core features are enhanced operator guidance, quality assurance, direct device integration and production planning.

Manage your assembly process and improve efficiency by empowering your operators, process engineers and line managers.

Designed specifically for SMMEs, enabling customers to start with a single station and to scale to enterprise size.





Summary Of Key Benefits & Features

AI Enabled Smart Worker Guidance

click

Increased quality, production output and flexibility Reduced training time & cost, ramp up time and cost of scrap

Direct Hardware Integration – "Bring your machine."

click

Combine the best-in-class machines from multiple vendors to build your ideal assembly line. This enables flexible assembly lines to build multiple products on the same assembly line. Improves competitiveness by increasing flexibility in Additional revenue streams. Batch size 1

Built-in Quality Assurance & Traceability

click

Increased quality and first-time-through (FTT). Reduced cost of rework & scrap. Including route planning and exception management.

No-code Line Planning And Configuration

click

Increased assembly line flexibility Simplified setup and hardware configuration. Reduces time & cost. Centralized data management of BOM and Bill of process

Individualised performance reporting

click

Individualised performance reporting to operators, technicians, engineers and Plant managers

AI Ready & Analytics Platform

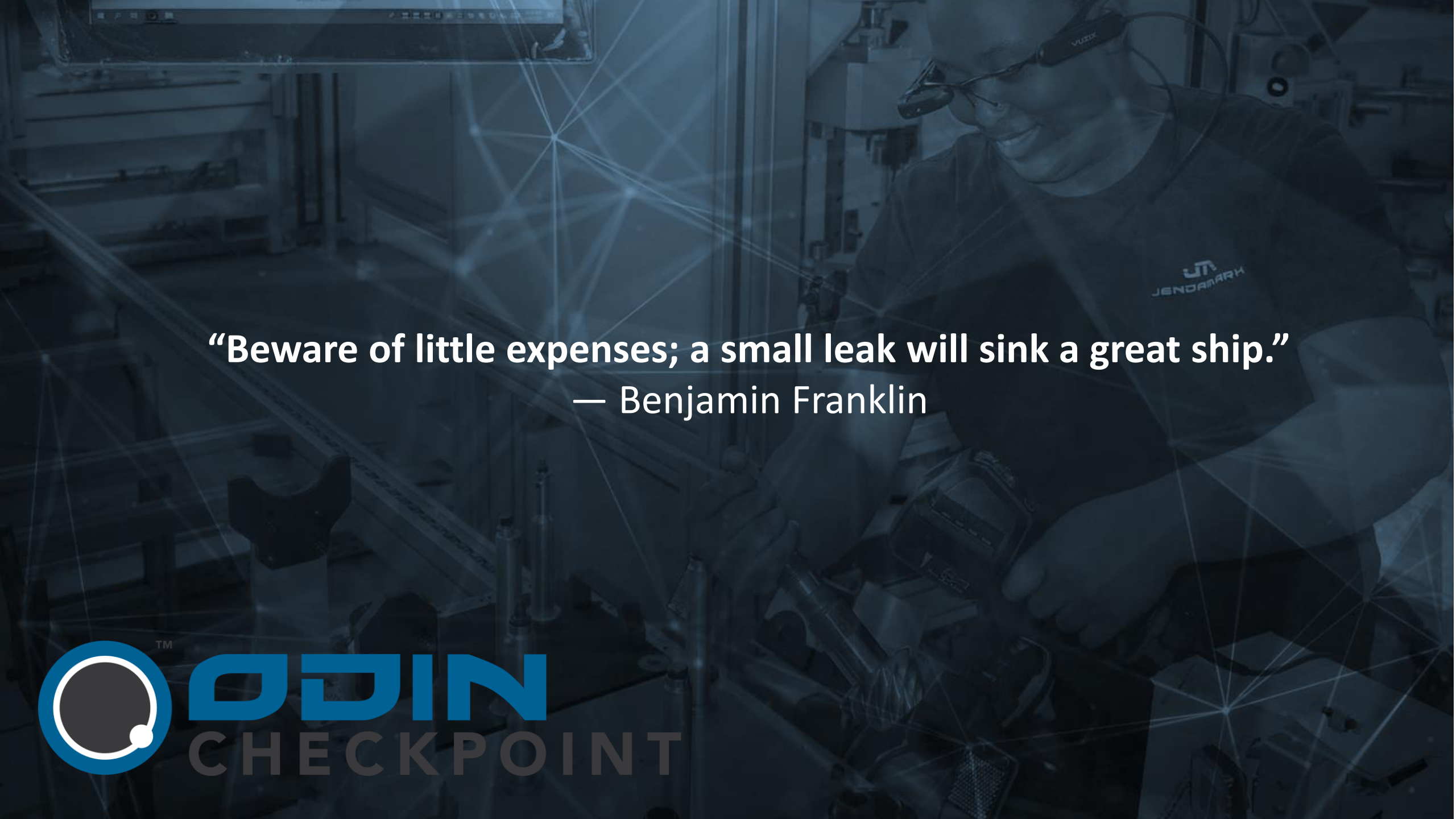
click

Reduced time to access production data ensuring. Designed with a data pipeline that enables AI/ML to improve production efficiencies

SUMMARY

ODIN WORKSTATION

PRODUCTS		CAPABILITIES & FEATURES	CUSTOMER BENEFITS	KPIs
Stand-alone	Workstation	· Animated operator guidance	· Enable unskilled operator and shorten training period · Reduced defects (through pre-defined sequences)	**TIME** · Cycle time · Down-time · Training time · Utilisation · Commissioning duration · Product lifecycle span **QUALITY** · First-pass yield · Scrap ratio · Operator mistakes · Number of recalls **COST** · Cost of training · Capex · Cost of poor quality
		· Multi-variant and -product production (e.g., different products in different shifts)	· Improved overall flexibility to changing environments · Extended product life cycle and increased utilisation	
		· No-code line configurations (line planning) · Access control (e.g. individual features for different roles)	· Improved ease of use and simplified set-up of machine	
		· Integration capabilities: ERP (e.g., via data connectors) and machine (e.g., production equipment via PLCs)	· Enhanced control of process · Scalable solution (e.g., integration of new hardware)	
		· Quality control (e.g., validation of components: BOM) · Product traceability (e.g., barcode/batch scanning)	· Increased quality standards (e.g., customer requirements) · Improved audit process (e.g., traceability report)	
		· Availability of process engineer support	· Accelerated commissioning and set-up of workstation	
Add-on	Phantom	· AI Vision system for process tracking · Visualisation of digital buttons	· Reduced cost (e.g., fewer physical buttons) and training cost · Minimised risk of defects (e.g., wrong orientation of part)	
	Ensure	· Traceability and security for QA process · Detailed quality and compliance reports	· Improved audit and compliance process · Increased quality and reduced risk of recalls	
	Insights	· Comprehensive production reporting (multiple sources)	· Accelerated root cause analysis and minimised down-time · Enhanced transparency (for all levels)	


“Beware of little expenses; a small leak will sink a great ship.”
— Benjamin Franklin
ODIN
CHECKPOINT

“Beware of little expenses; a small leak will sink a great ship.”

— Benjamin Franklin

ODIN CHECKPOINT

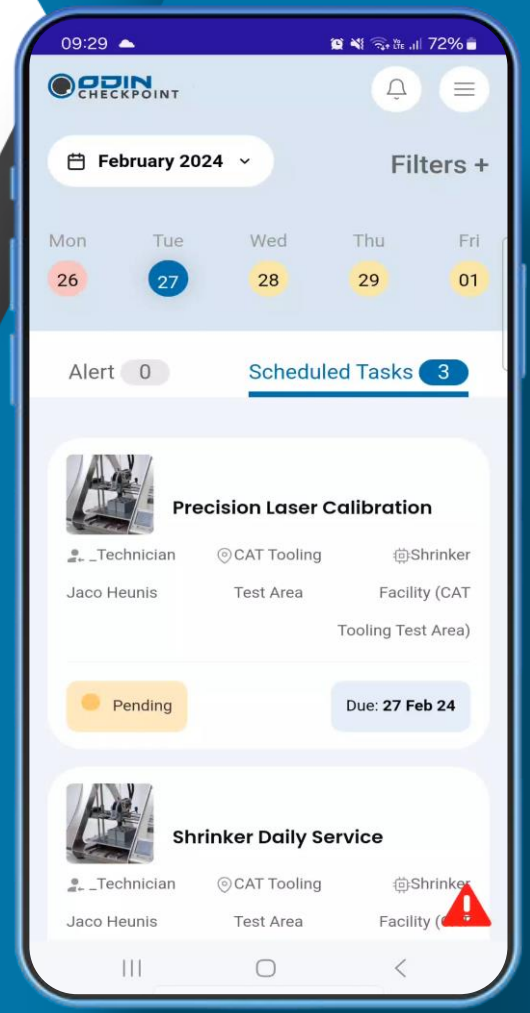
ODIN CHECKPOINT™

SMALL TASKS, BIG IMPACT — MANAGED DIGITALLY.

Many operations **struggle to plan and execute** critical tasks, such as:

Preventative maintenance,
Safety audits,
Quality inspections and
Unplanned events, e.g. Breakdowns and Safety incidents

ODIN Checkpoint ensures teams plan, communicate, and execute these and other critical tasks efficiently, keeping operations safe, timely, and profitable



africa tech week AWARDS 2023 WINNER 2023 TECHNOLOGY INNOVATION OF THE YEAR

7 COMMON CHALLENGES IN MAINTENANCE, QUALITY AND SAFETY MANAGEMENT

- Inconsistent execution of tasks
- Lack of accountability
- Difficulty in tracking and verifying the status of critical tasks.
- Overreliance on manual paper-based processes
- Ineffective management of unplanned incidents – breakdowns, quality or safety
- Lack of skills and/or documentation to adequately perform tasks
- No visibility across the organisation on the live status task compliance

ARE THESE CHALLENGES AFFECTING YOUR OPERATIONS?

YOUR ALL-IN-ONE GET IT DONE PLATFORM

Task Management App

Documentation

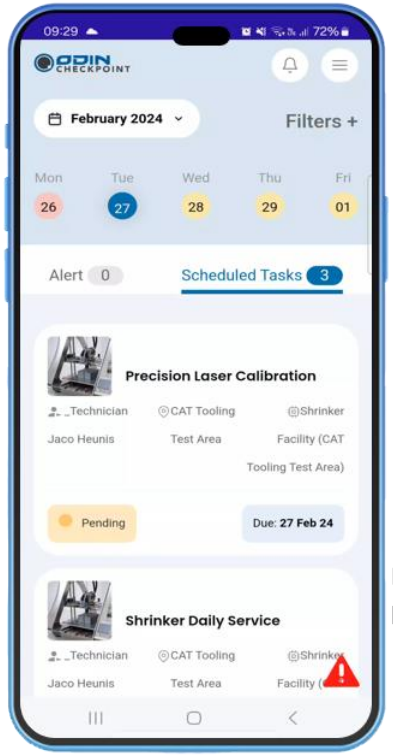
Faster Access to critical documentation via QR code scan

Dashboards and Notifications

Effective dashboarding, reporting, notifications and WhatsApp integration

Rapid records

Faster recording of ad hoc production measurements for more effective root cause analysis



Scheduled Tasks

Paperless task management, including video SOPs for on-the-job training

Schedule tasks based on asset run time

Unplanned Tasks

Efficient execution and communication and of unplanned tasks e.g breakdowns, safety, quality

Automatically Alert based on Anomalies and asset health

Production Tracking

Digitise manual recording of production output

Machine Cycle counts.

Vibration Condition Monitoring

ODIN CHECKPOINT™

ODIN RAVEN

MODERN & SCALABLE ARCHITECTURE

Start with a **single asset** and scale as you need

START SMALL → **ADOPTION** → **PROVE VALUE** → **SCALE**

Task App

ODIN CHECKPOINT Cloud

Planning and Reporting Web App

ODIN RAVEN

Vibration Condition Monitoring

ODIN Checkpoint provides a simple, cost-effective way to start your **DIGITAL** & **PEOPLE** transformation journey

KNOW THE HEALTH AND PERFORMANCE OF YOUR ASSETS

ODIN RAVEN

Smart vibration sensor with ML

- *Live utilisation of equipment and cycle count.*
- *Anomaly detection through vibration monitoring.*
- *Non-Invasive data capturing.*
- *Quick and easy set up*

NON-INVASIVE MACHINE CYCLE COUNTING FROM VIBRATION DATA

Digitising a 45-year-old stamping press

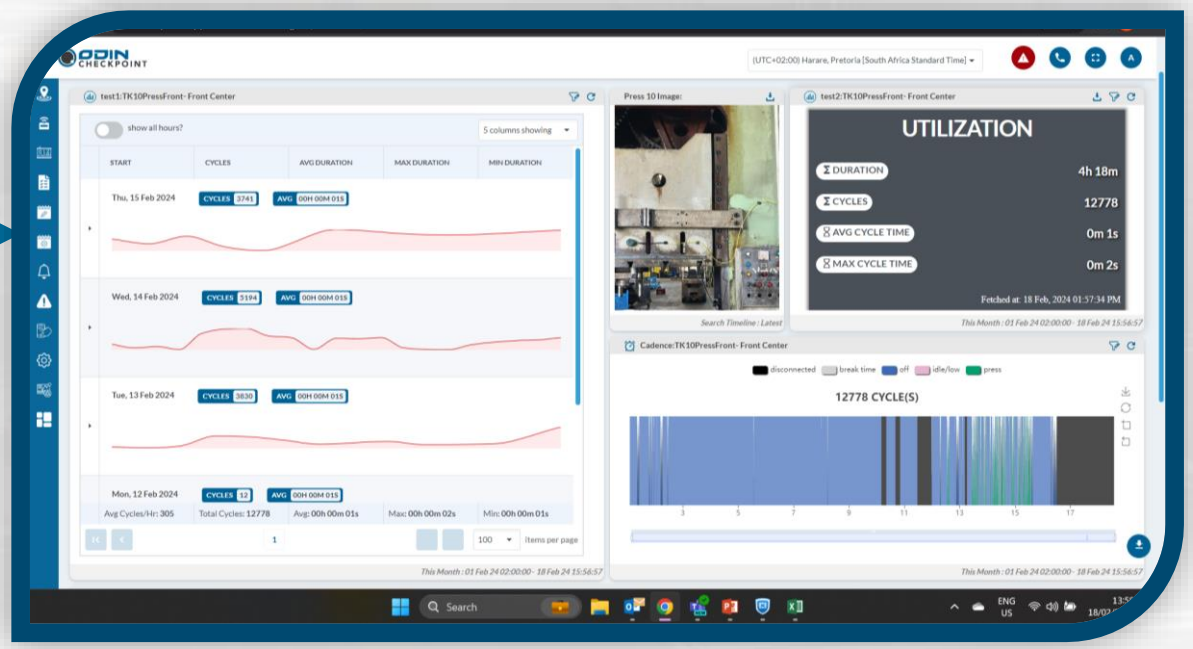
Before

Traditional method of recoding hourly production output

After

Vibration Sensor autonomously counts the number of cycles

ODIN RAVEN

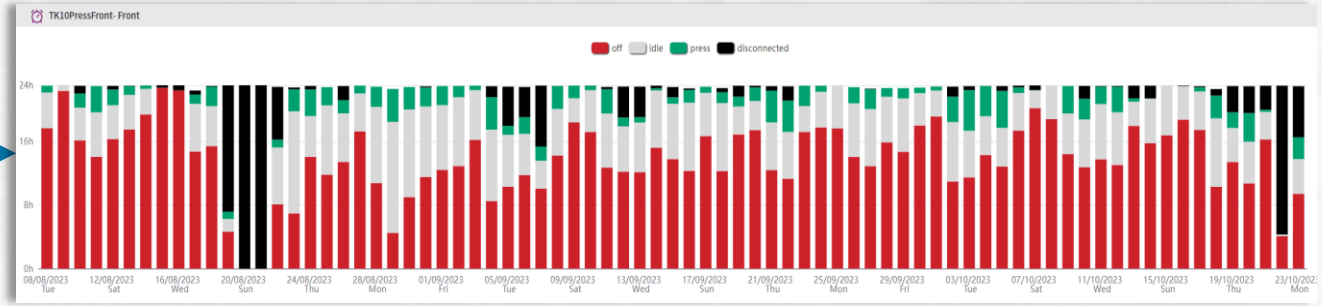


ODIN RAVEN

ASSET HEALTH AND UTILIZATION FROM VIBRATION DATA

Digitising a 45-year-old stamping press

Asset Utilization



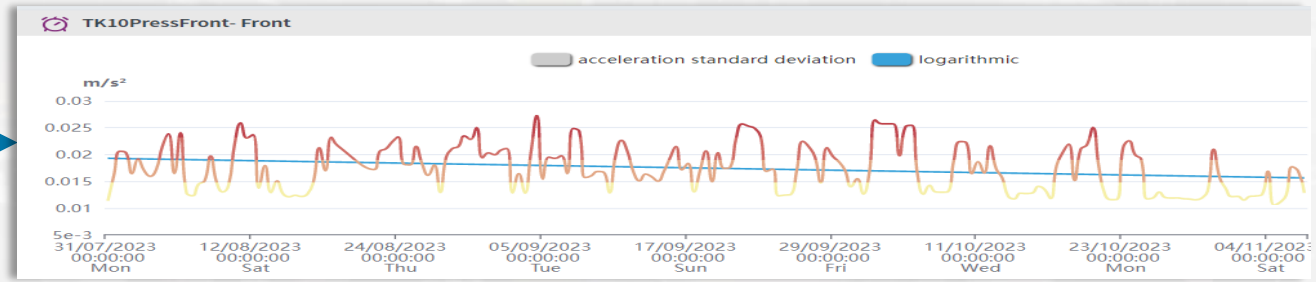
Who is this for

Production Management, Finance, forecasting and planning

What's the value?

Monitoring asset utilisation provides better insight into whether additional equipment is required. Shows the opportunities to improve asset utilisation

Asset Health



Who is this for?

Maintenance Teams

What's the value

Monitoring of machine health allows the maintenance to take a proactive approach to machine maintenance.

ODIN RAVEN

Customers

ODIN CHECKPOINT ODIN RAVEN

copalcor

Continental COMPOUNDERS

Continental ENGINEERING COMPOUNDS
Advanced Material Technology

SCHAUENBURG Systems
Innovation that Saves

NORTHFIELD ENGINEERING ESTABLISHED 1949
INDUSTRY SUPPORT

BIOVAC
science of protecting life

DynaFoam Converters

GRW

SJM

Mertech Marine

GeT Metal GROUP

Walker Drive SHOPPING CENTRE
All the RIGHT Choices

Premier
Growing Together

Make Quality Everything Apex

WAIKATO South Africa Milking Systems
WAIKATOSA

SMITHS
MANUFACTURING (PTY) LTD

WSU
Walter Sisulu University

ECM


A SMARTER WAY
TO LEARN
ODIN
VR

ODIN VR is your company metaverse that hosts all your VR, AR and 360 video content. Individual training schedules and results are logged and presented to participants and training departments. Global organisations can centralise their VR training management, while plants can view training registers and compliance results.

Test drive your assembly line virtually before building to optimise the design!

Key Benefits & Features

Train anywhere worldwide
Global training can be facilitated from a central company metaverse.

Gamification
Create a fun and engaging training experience. Users receive training scores and can adjust the level of difficulty, use scenarios and set different goals to achieve.

Risk-free training
By training in a 3D virtual space while activating muscle memory, training becomes more effective. It is also the safest choice, eliminating real-world risks to the operator, facility, and product.

Simplify complex training
Any sequence can be replicated in the virtual space. Even the most complex assembly sequence can be broken down and learnt far more effectively, in a risk-free setting.

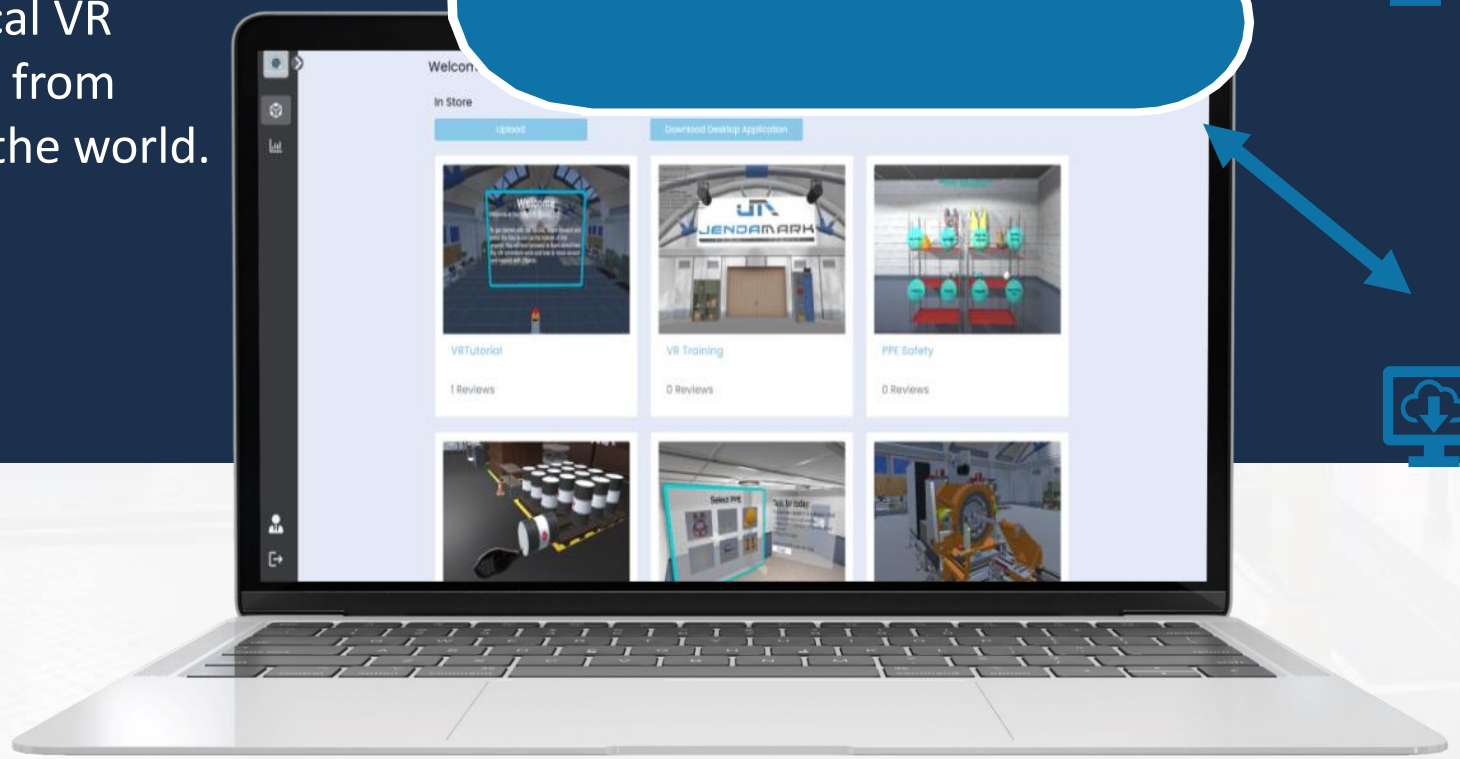
Content unique to you
VR, AR and 360 video content can be created to suit your individual needs.

Click here to see more

ODIN VR

ODIN VR allows you to have one central **cloud based** platform (LMS) where you can access your VR training content, at your physical VR station setup, from **anywhere** in the world.

Learning Management System (LMS)




A SMARTER WAY
TO EDUCATE
ODIN
EDUCATION
A JENDAMARK ECOSYSTEM

ODIN EDUCATION
A JENDAMARK ECOSYSTEM

connecting every child to a
BRIGHTER FUTURE

The challenge is to have an effective EDTECH system; many products at multiple layers need to be integrated into ONE system – THIS IS HARD

Teacher Training & Support

- Digital Pedagogy
- Platform Awareness
- Tech Adoption
- Content Sourcing
- Tech Support

24/7 Learner Support

- Remote Tech Support
- Profile Management
- Hardware Support
- Content Sourcing
- Emotional Support

Data & Server Maintenance

- Maintenance
- Scaling – Size Config
- Security & Protection
- Digital Rights Management
- Analytics + Visualizations

System/User Configuration

Base Platform (LMS)

talentlms, canvas, Blackboard, efront, ispring, ProProfs Training Maker, KNOWMAX, brightspace, Joomla, Litmos, moodle, docebo, absorb, schoology, THINKIFIC, RIPPLING, Adobe, LMS

Child Safety, Security & Control (MDM)

Scalefusion, Addigy, MaaS360, ManageEngine, hexnode, airwatch by vmware, SAMSUNG Knox Manage, APPTEC360, SOTI, jamf, baramundi, CITRIX XenMobile, Microsoft Intune, SM, KACE

Internet Connectivity

Cell C, IS, afrihost, axxess, comtel communications, WirULink, EvoNet, mitsol, Telkom, SEACOM, cool ideas, rain, RSAWEB, MWEB, GIGAGO, FIBRE, WiFIBRE, VOX, supersonic, kibo, ISPAfrika, VANILLA, CYBERSMART, BitCo, HOME CONNECT, goturbo

Hardware + Operating System

SAMSUNG Galaxy A8, Microsoft Surface Go, Lenovo, chromebook, LeapFrog, kindle fire, iPad Air

ODIN EDUCATION
A JENDAMARK ECOSYSTEM

One solution across all layers

Teacher Training & Support	Odin Site Based Service - Tsogang
24/7 Learner Support	Odin Ticketed Response Centre - Polelo
Data & Server Maintenance	Odin Cloud Platform Through AWS Server Infrastructure
System/User Configuration	Odin Service Through our Cloud Platform
Base Platform (LMS)	Proprietary Omang Application
Child Safety, Security & Control (MDM)	Proprietary Omang Application
Internet Connectivity	Managed Centralised Data Service Through Vodacom
Hardware + Operating System	Customised Firmware Using Lenovo Device + Android OS

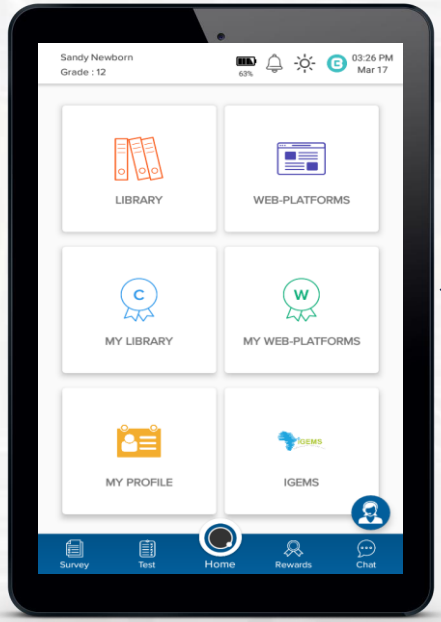
ONE OMANG

ODIN EDUCATION
A JENDAMARK ECOSYSTEM

LEARNER

POLELO UNLIMITED

24/7 Learner Support



TEACHER

TSOGANG
Together we rise.

Teacher Training & Support

Monthly Asset Utilization	Daily Engagement Rates	Avg Daily Learning Time
>95%	>65%	90 min

FEATURES OF THE

OMANG DEVICE

Dedicated educational device

No social media or other distractions

Pre-connected with Data

WiFi-enabled plus 2GB preloaded monthly data

Switch on and play

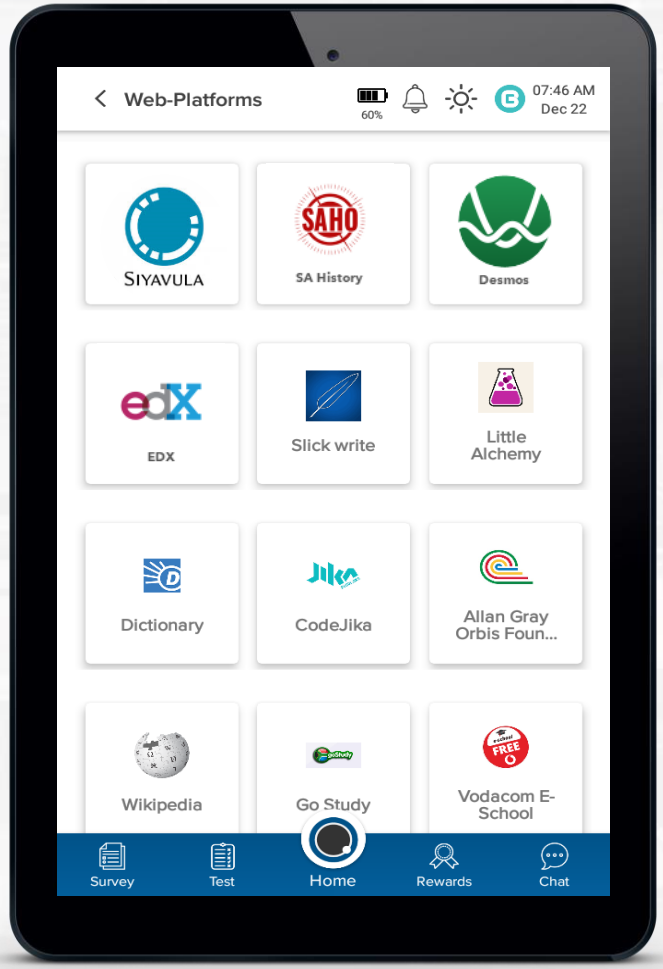
No setup required. Fully pre-configured per learner

Personalised content

Preconfigured and preloaded according to registered subjects

Live classroom streaming

In-built remote classroom streaming facility. All lessons recorded and available post lesson.



Limitless online resources

Access to the world's best educational websites, e-learning apps etc.

Data-driven personalisation

System learns user interests to personalise more content

Fun features

Surveys, quizzes and rewards feature to incentivise learning

Communication

Teacher-led chat forums, user pop-up notifications and full screen Positive Social Messaging feature.

Remote support

'Private Banker' level support for every learner. Fully configurable remotely.

THINK

ECOSYSTEM

We continuously integrate learners, teachers, mentors, companies and the latest online education platforms.

JENDAMARK

TECH | PEOPLE

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