

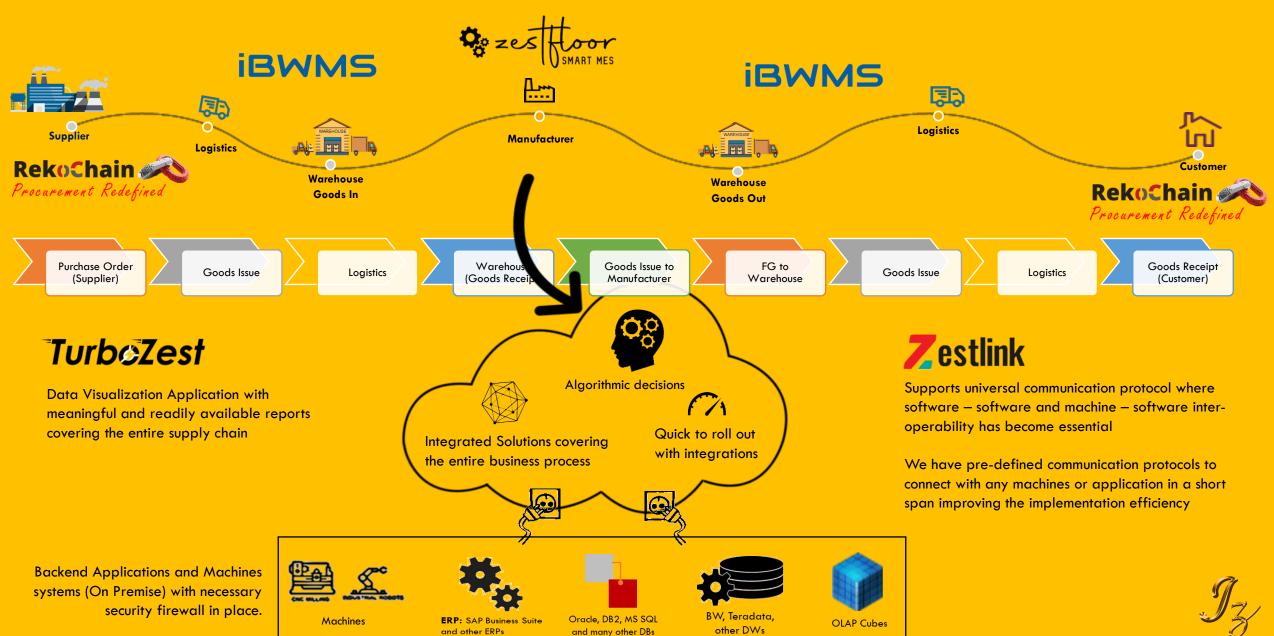
zestfoor SMART MES

# **DRIVING THE ENTIRE SUPPLY CHAIN**





## **IZ SUITE – PRODUCT PORTFOLIO**



# ZESTFLOOR

- Leading EMS companies use Zestfloor for their entire journey from Material inward to Dispatch
- Market Leader in Track, Trace & Control and Connectivity solutions for EMS Industries.
- Zestfloor is built on Industrial 5.0 framework with automation and interlocking enabled with the support of latest technologies.





# CHALLENGES

#### Coordination between multiple, dispersed and disconnected Machine Makers

With many Models and Machines in place both in SMT and Assembly. It is always challenging to connect and have a seamless data flow digitally recorded in the system.

#### Lack of Connectivity

Lack of Connectivity with Machines or Applications involved in the overall business processes which is from Inward to Dispatch.

#### Streamlined operations and Process automation

Predominant paper based records and manual processes are not streamlined and thereby, records pertaining to testing, tracing products, particularly during a recall and reconciling accounts and transactions end up being costly and time-consuming.

# Connect to ODM/ OEM Machines to ensure the data flow.

Testing or Pairing systems in particular where the IMEI or serial numbers are generated has to be integrated and connected in Realtime to support Traceability and data flow

#### Lack of Product Traceability

TRACEABILITY

A major challenge in traceability is ambiguous product information resulting from logging vague and uncertain product characteristics that are hard to trace.

# Onerous and Costly 'data reconciliation processes'

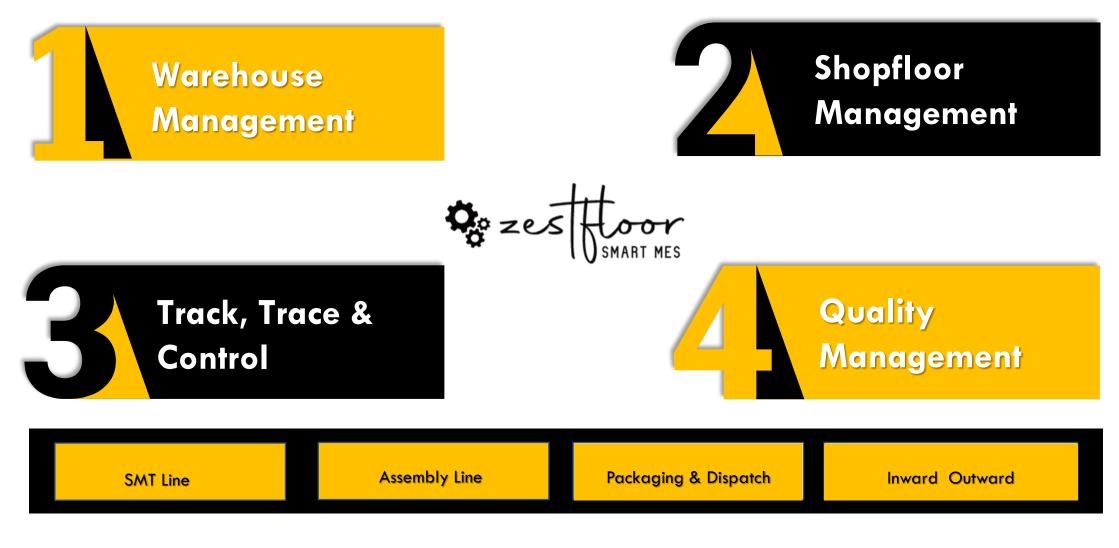
Supply Chain in general result in a large amount of duplicative data and involve huge efforts in the tracking and reconciliation from start to finish.

#### **Bringing in Transparency in Business**

Transparency is a key factor which propels the businesses on a steady state model. Bringing in consensus among all stakeholders in a network is important.

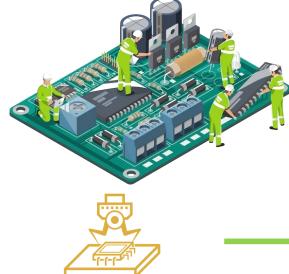


# ZESTFLOOR





### FEATURES



SMT Line

- Inventory tracking of Components at each stage of Issue
- Kitting Control (follows the FIFO/ FEFO strategy)
- Setup Verification and Process control, FAI to all quality parameters taken into consideration.
- Solder Paste Management, Stencil and other tool management
- MSD Control
- Route Control with every stage tracked
- Rework and Repair management
- Integration Protocols with all Machine Makes including ICT, RF, Routers and other Machines.

#### Material identification and Tracking starts from Inward,

Warehouse Layout (Virtual Plotting) Storage Sections Storage positioning Storage Type Dock Management



#### **Assembly Line**

- **WIP Inventory** tracking at each stage giving real time inventory.
- Integrated with **MI**/ **AI** line to support the process through **PTH** and **WSM** machines for tracking including Jig verification and Strokes.

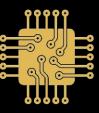
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- Integration with ODM/ OEM machines/ systems to get the throughput for seamless interlock at every process
- Ability to extract data from Bluetooth testing machines against MAC ID and IMEI and relate it to the serial number.
  - Supports Auto as well as Consumer Electronic industry end to end.



#### Packaging Line

- Pairing to Mono box/GB carton for complete traceability till the very last component.
- Generate labels of all sizes and requirements for Packaging.
- Integrate with Label printers and scanners.
- Detailed Quality module to capture the testing (100% sampling or Random sampling with respect to time or quantity) is supported.
- Generation of labels against GB/ Carton/ Pallets and movement to Warehouse (Dispatch) against Delivery.



### **MES ON INDUSTRIAL 5.0**

#### Human Centric Approach - Our

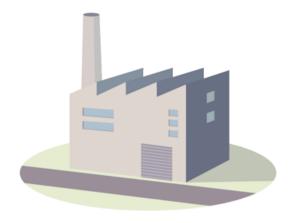
Products has always evolved with the intention of keeping human resources. We have consciously developed solution to support the automation process where needed thereby the gaps can be addressed without any impact to the human resource or blending the technology to the needs of the business processes.

#### Sustainable or Sustainability is also an

important factor where companies want to focus and invest on applications which can help automate and take care of removing manual and paper driven processes. In addition, our applications has the Machine learning algorithms which supports in optimizing resource efficiency and minimizing waste.

**Resilience** – Refers to the need of the hour applications which can support strategic value chains, adaptable production volume/ capacity and flexible business processes. Sharing Technology for a better future with automation where required, banking on the strength of Human resources making the Human to Machine collaboration a circular economy and a shared vision of leveraging technology for a better future.

Zestfloor works on the model of converging the OT and IT systems and Digital twins with the highest security compliance ensuring the safety and integrity of critical infrastructure and business operations.



### **COMPLETE AUTOMATION**





# **0CR**

OCR

OCR enablement supports and makes life easier where the majority of companies have challenges since none of ERPs or any application captures critical data like MPN, Mfg. date and LOT number. It also saves \$\$ by avoid buying Machines. Interlock

Interlocking at every possible stage right from SMT to Assembly eliminating the possibility of defect boards to move down the line. Use of PLC automation to STOP the conveyor in case of anomaly either in materials, machines or processes.





Traceab ility Complete automation of traceability end to end including WIP tracking and Handling nit where the SMT or boards that are completed with processes are stocked.

Process and Part traceability Automation.



Ability to integrate all Model and Make of Machines in SMT, Assembly and Testing Lines. We also provide the option of having all done in our application saving you the cost of licenses but still provide all the features expected.



### INFLUENCING THE API(LED) CONNECTIVITY





### **ANALYTICAL INSIGHTS**

#### Part Traceability

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#### Process Traceability

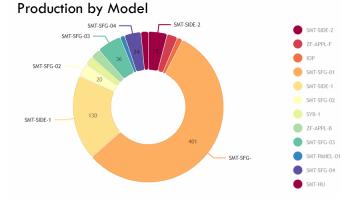
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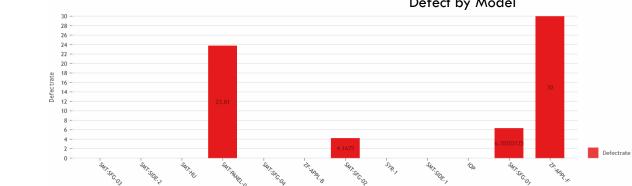
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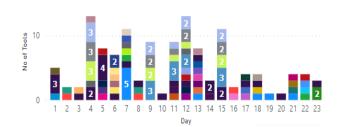


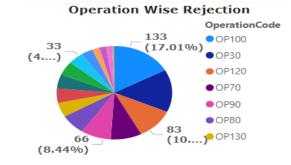




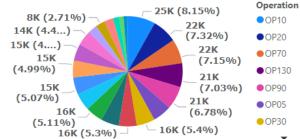
#### Tools Change By Day Wise







#### **Production By Machine**



Defect by Model

### **KEY CUSTOMER ENGAGEMENTS – 2022-2023**





















**AX15**<sup>®</sup> global automation

















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