

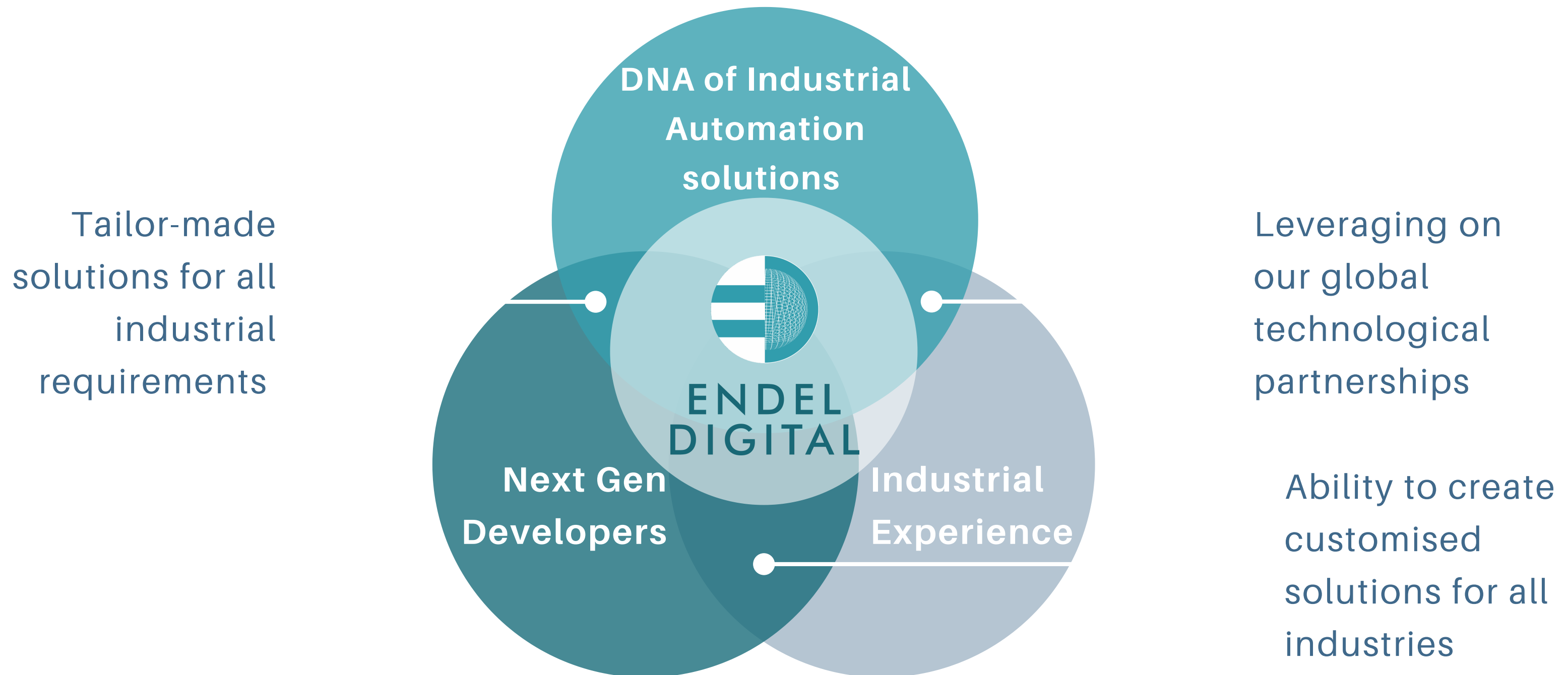
**ENDEL  
DIGITAL**

# **Batch process workflow digitisation**

By Endel Digital Solutions

# About Endel Digital

Endel Digital is an industrial software solutions provider, having presence in India, Middle East, and Africa with a strong industrial lineage. We offer an array of solutions catering to a wide range of industry requirements by leveraging on its domain competence and partnerships with reputed technology providers.



# What solutions can we provide for you?

Our experience with a variety of industries and alliances with renowned technological partners, has allowed us to create a variety of solutions that tackle the issues for a number of industrial verticals.

Our solutions can be completely customised to fit your organization's workflow and processes.



## **Complete weighbridge automation solutions**

Weighbridge integration with ANPR, ERP, Cloud, and more.



## **Laboratory Management Solutions**

Digitization of processes, preventive maintenance, project management, and more.



## **Batch process automation**

Digitizing checklists, worksheets, material issuance notes on a mobile based UI.



## **Industrial Inventory and Dispatch Management system**

Seamless tracking of RFID or NFC Tag based inventory and dispatch management system

# Why should you digitize your plant?

## ► 01.

Embracing  
smarter  
possibilities

## 02.

Enhancing the  
workflow of the  
manufacturing  
processes

## 03.

Efficiency of  
operations and  
quality  
assurance





# Solution approach for your plant

To start off the project, phase 1 focuses on digitizing the existing workflow



## Digitize data entry

- Convert all manual forms into digital forms.
- Mobile application-based interface with workflow automation
- Kanban representation for efficient functions



## Integrate machines using IIOT

- Integrate data with the help of sensors
- Integrate machine-to-machine communication with RS232 and RS485 interfaces



## Provide insight

- Map business KPIs with the application insight
- Implement Business Intelligence dashboards through multi-system integration

# Core features and functionalities

Custom Dashboards for easy access to critical information, unique KPIs for each user role.

**Business insights**

Custom filtered reports to get complete birds-eye view of all manufacturing operations, in a consolidated manner

**Enhanced Reporting**

Role-based access to ensure that the right persons get access to the relevant datasets

**Secure Access**

Real-time data visibility, with checks and balances to validate all entries.

**Real-time and accurate**

Digitizing your processes and workflows

# What does our process flow management solution look like?

Ease of use and agile design is at the heart of all our solutions. Our UI is designed in a manner that provides the highest satisfaction to the end-user, whilst the framework can be easily maintained and upgraded as required.

The screenshot displays a web application interface for a Supervisor. At the top, a purple header bar contains the title 'Supervisor' and navigation icons. Below this, a purple dashboard bar shows two main metrics: 'Active 5' with a clock icon and 'Assign 6' with a clipboard icon. The main content area is divided into sections for different reactors: NR5, NR6, and NR7. The NR5 section is expanded, showing a table of batch details for 'Batch no:1012' (Product: SYNALD 1070WS-NR5). Below the table is an 'Assign Operator' form with two rows for 'Operator Name' (both set to 'Samson Ogot') and 'Day Shift' (both set to 'Day Shift'). A purple 'Assign Batch' button is positioned below the form. The NR6 section shows two batches (1010 and 1004) for product SYNALD 1063WS-NR6. The NR7 section shows one batch (1011) for product SYNALD 5960X. At the bottom, a navigation bar includes icons and labels for 'Active', 'Checklist', 'Plant Status', 'Kanban', and 'Report'.

Batch no:1012		SYNALD 1070WS-NR5
Product	SYNALD 1070WS-NR5	
Approve Time	2022-11-25 09:43:57	
Assign Time	2022-11-26 13:47:00	
Quantity	10145	
Assigned Reactor	NR5	
Approved By	owen	
Created For	Replenishment	
Customer Name	Pending	
MaterialLStatus	Pending	

Assign Operator	
Operator Name	Samson Ogot
Day Shift	Day Shift
Operator Name 2	Samson Ogot
Day Shift	Day Shift

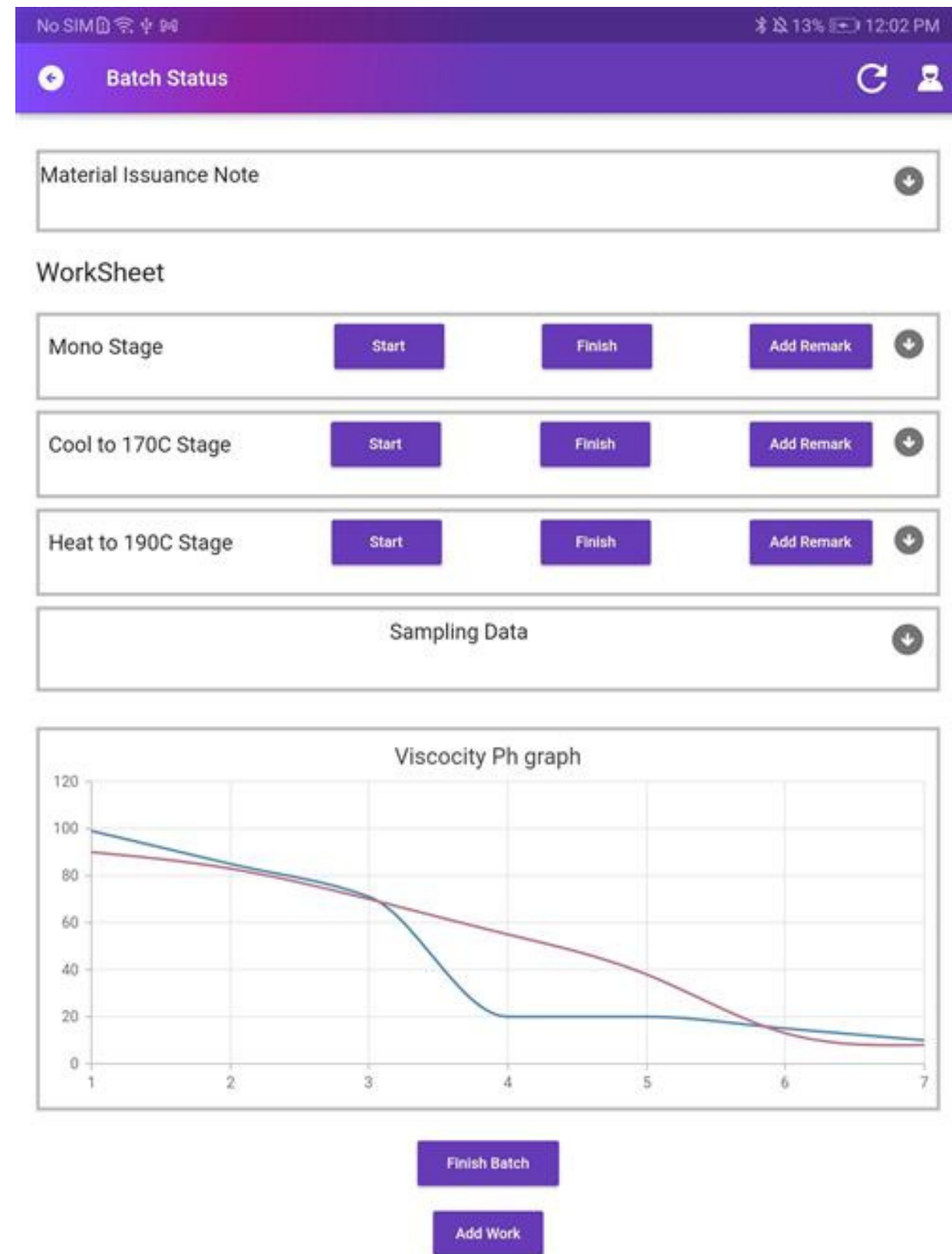
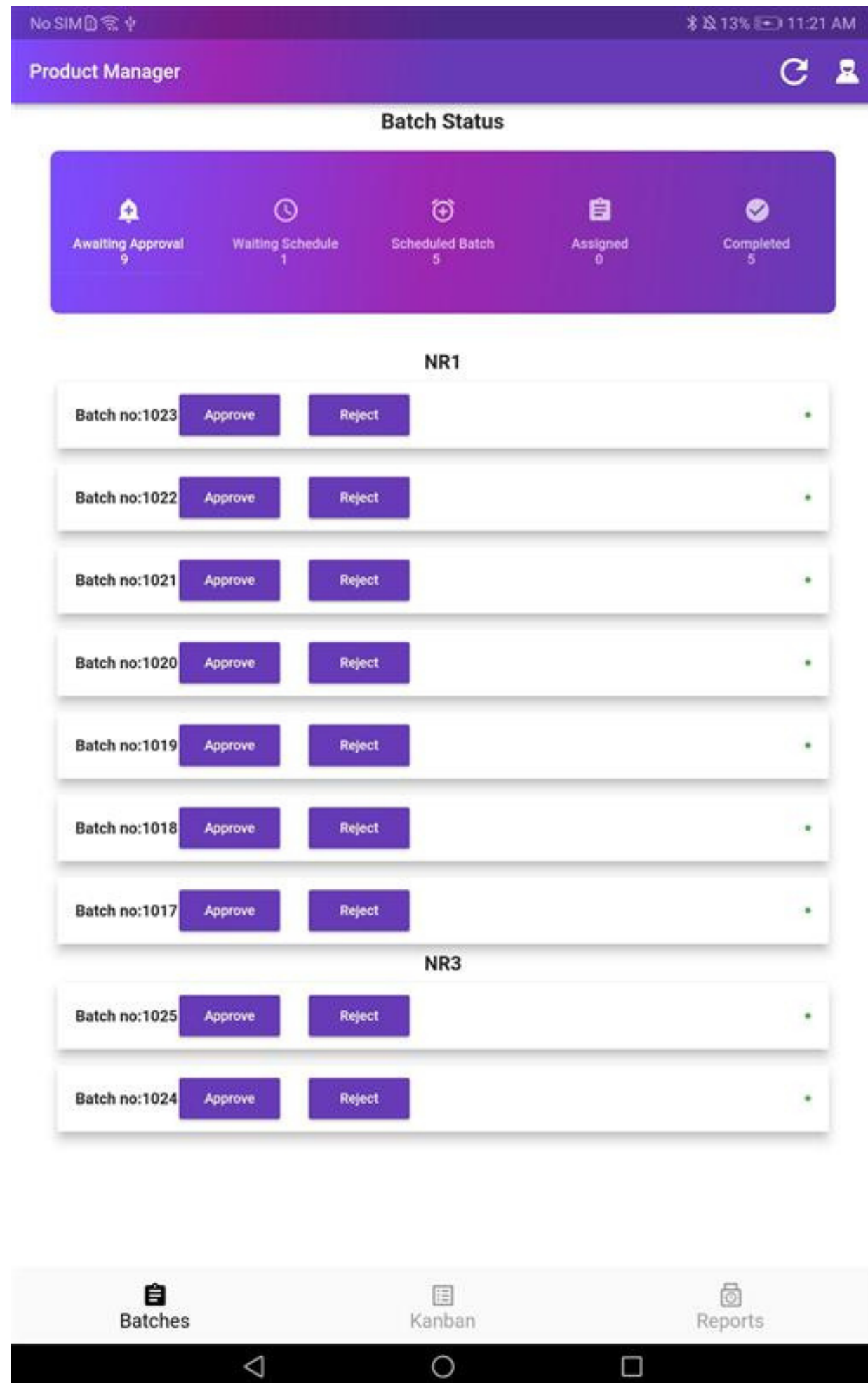
Assign Batch

NR6	
Batch no:1010	SYNALD 1063WS-NR6
Batch no:1004	SYNALD 1063WS-NR6

NR7	
Batch no:1011	SYNALD 5960X

Active Checklist Plant Status Kanban Report

Supervisor User role gets access to assign the batches to respective operators, the system also suggests operators on the basis of their shift timings



Unique user roles get access to different user rights and actions. Product managers have to approve each batch, they can also view the reports and establish the material issuance notes for each batch and product.



Batch-No = 7412

	Okay	Partially Okay	Not Okay
Control panel display	Okay	Partially Okay	Not Okay
Filling pump	Okay	Partially Okay	Not Okay
Weighing scale	Okay	Partially Okay	Not Okay
Loadcell/display indicatorBag damper	Okay	Partially Okay	Not Okay
Kasuku spannner for removing seals	Okay	Partially Okay	Not Okay
Drum sealing machine	Okay	Partially Okay	Not Okay
Sight glass light	Okay	Partially Okay	Not Okay
Monomer flow meter	Okay	Partially Okay	Not Okay
seperator tank water level	Okay	Partially Okay	Not Okay
speed controller	Okay	Partially Okay	Not Okay
Sampling materials	Okay	Partially Okay	Not Okay
Rope and Sheet gasket	Okay	Partially Okay	Not Okay
Circulation pumps HOB 1	Okay	Partially Okay	Not Okay
Process valves	Okay	Partially Okay	Not Okay
Chain block for dumping	Okay	Partially Okay	Not Okay
Water as raw material for emulsion	Okay	Partially Okay	Not Okay
Steam pressure above 4 bars	Okay	Partially Okay	Not Okay
Rope for tying gunny bags	Okay	Partially Okay	Not Okay
Stop watch and calculator for sampling	Okay	Partially Okay	Not

Checklist Completed

Operators have to fill out the complete checklist before they are allowed to start any batches. The system pushes for mandatory photo snaps of the task. If any errors are detected the supervisor is notified of the same.

No.SIMD 13% 11:52 AM

Quality Assurance

% Enter TCS%

ViscoSity

Appearance

Colour

Acid Value

Ph level

Film Appearance

Free Monomer

Stencil

Seals

Pallet

Label

Setting Time

Surface Dry

Through Dry

Select the area of Sample

Reactor vessel

Blender vessel

Drum vessel

Select Purpose

Select Product Type

Submit sample

Quality testers have to enter all of the parameters of their sample tests, and relevant validations can be placed for each parameter.

# Get in Touch

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 [info@endel.digital](mailto:info@endel.digital)

 +91 9979612342

 [www.endel.digital](http://www.endel.digital)

 Endel Digital Solutions

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India | Middle East | East Africa

