MES4

# Digital Transformation System in Production Area

With MES4, evaluating your resources correctly;

**INCREASE!**
- Production capasity of Machines
- Operator Efficiency

**DECREASE!**
- Scrap Rates

Through trexDCAS reporting evaluate your production capacity and turn your detected losses into an acquisition with **KAIZEN** improvements!

**MES4 Suggests!**

**Go Down**
**The Shopfloor**
**Communicate**

**Find Out**
**Identify**
**The Losses**

**Optimize**
**Improve**

# Biggest Companies Work With MES4

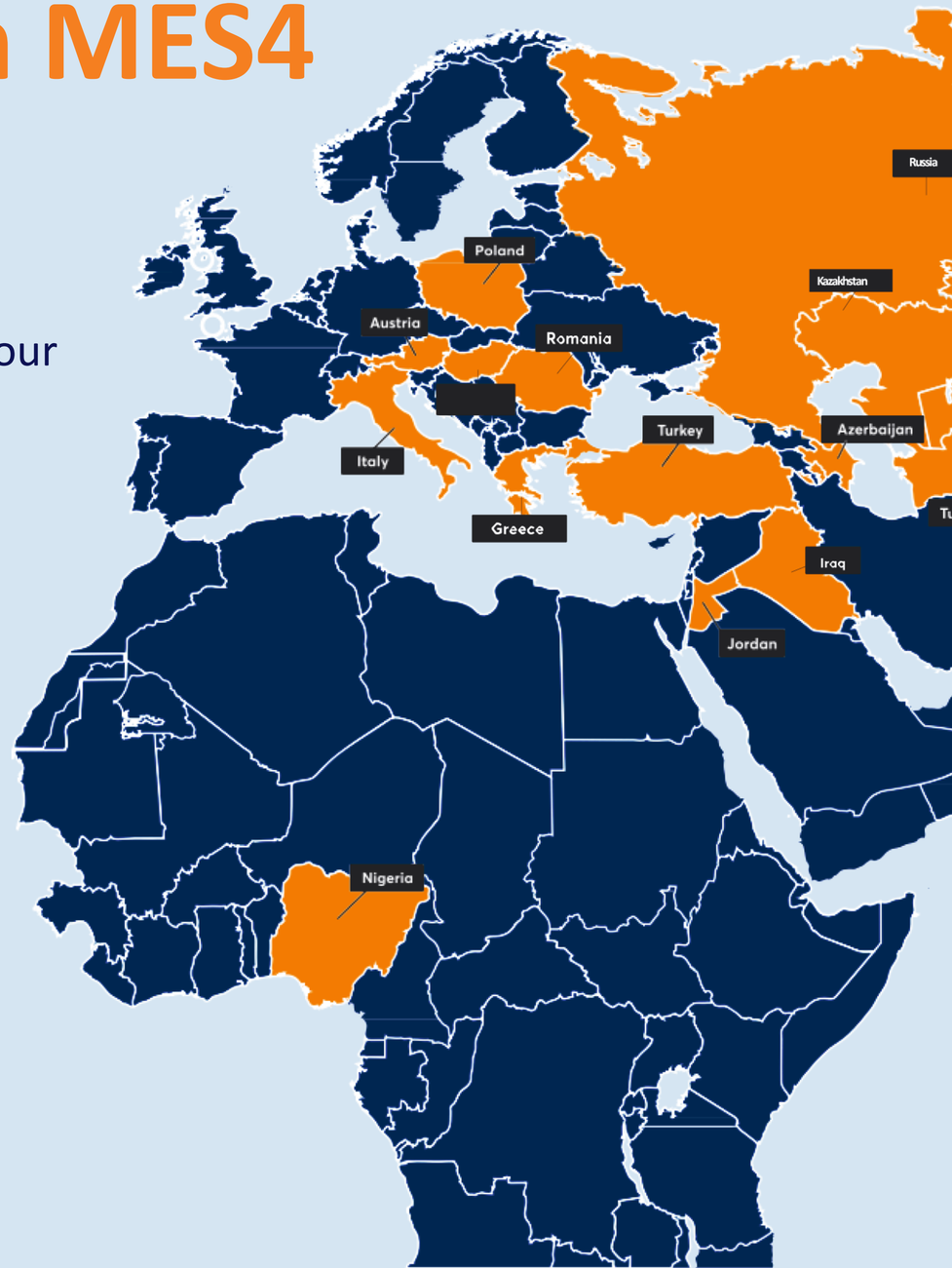
The better you measure, the better you evaluate!

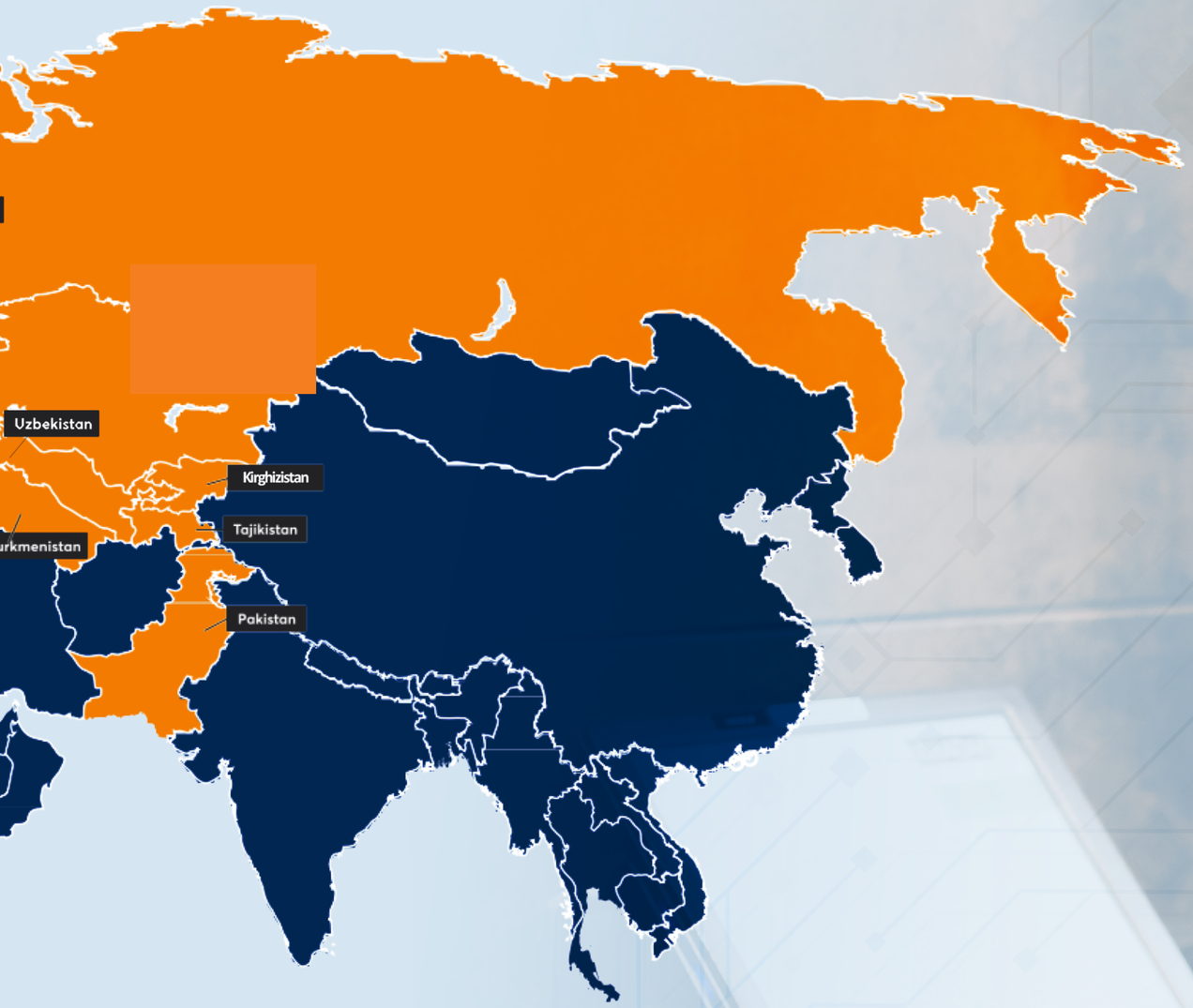
**MES4** provides discovery of **Invisible Icebergs** in your shop floor through S**mart Production System**. Therefore you can have better measurement of your KPIs and the KPIs we'll be offering through Visual Transparent and Smart Production Systems in a faster way.

Our systems will lead you about the points you need to take action by identifying time, performances and quality losses.
While you have decrease in,

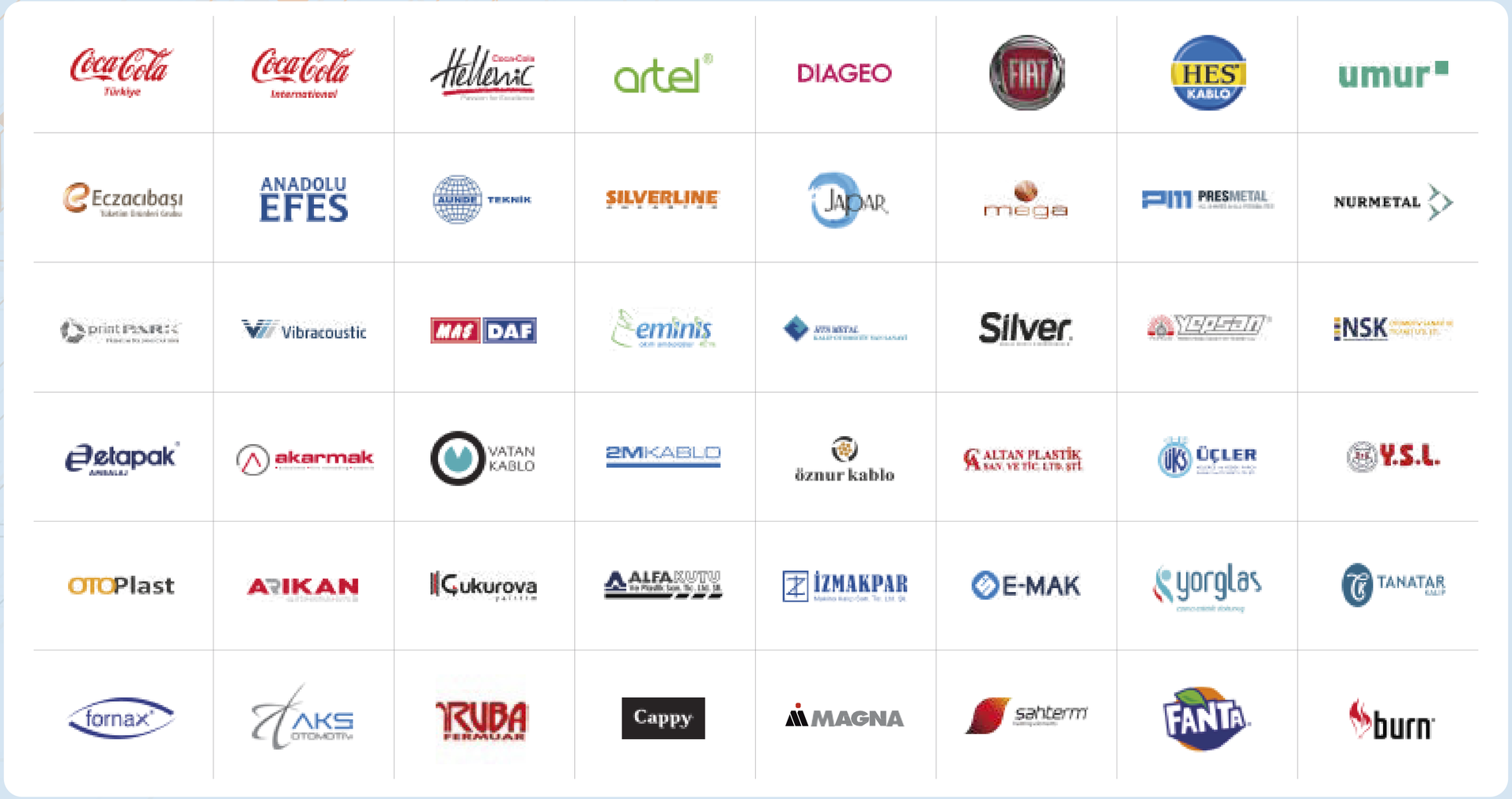
- Costs for production and spare parts,
- Maintenance costs,
- Meantime between failures,
- Intervention to breakdowns,
- Wastages and scraps

**Your profitability increases.**




Uzbekistan
Kirghizistan
Tajikistan
Pakistan

# Our Costumers



# World Class Production Experiences

**15+**
Variable Industries

**300+**
Plants

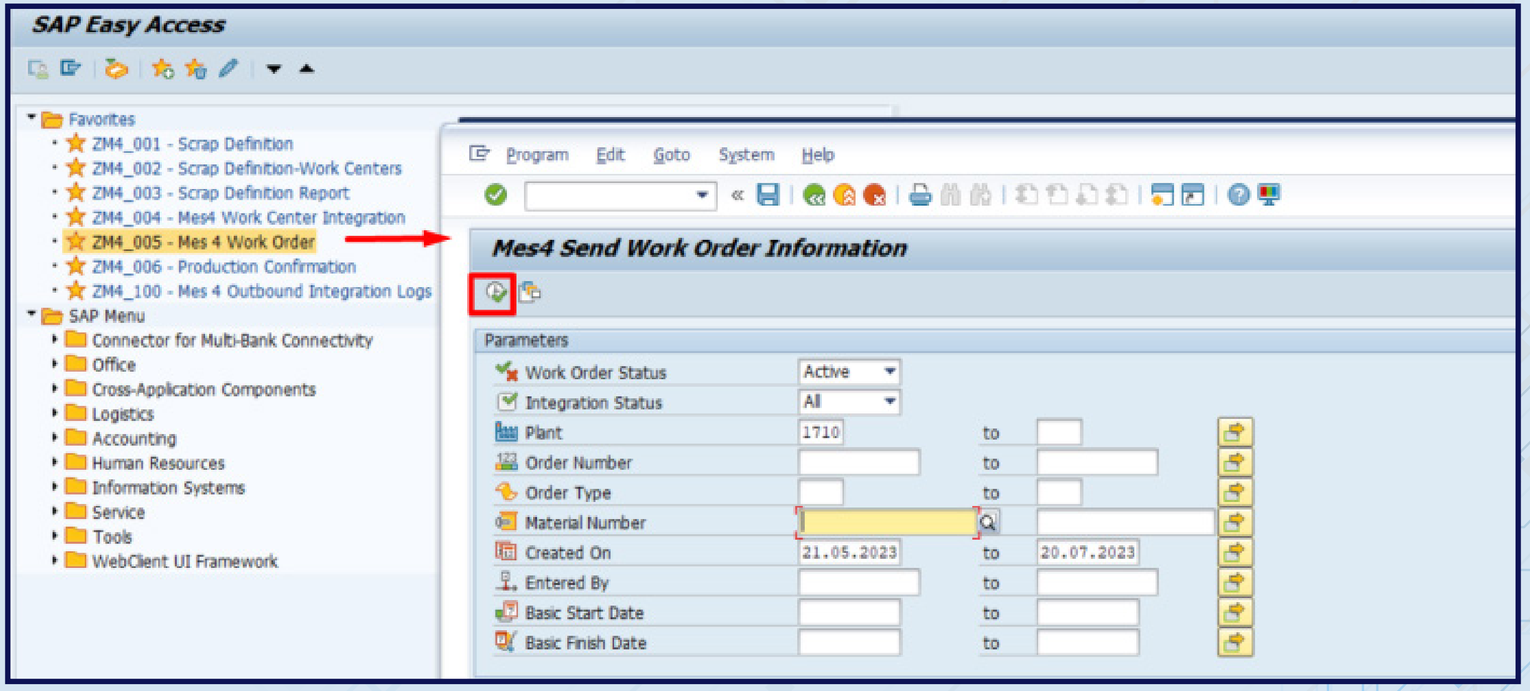
**55.000+**
Operators

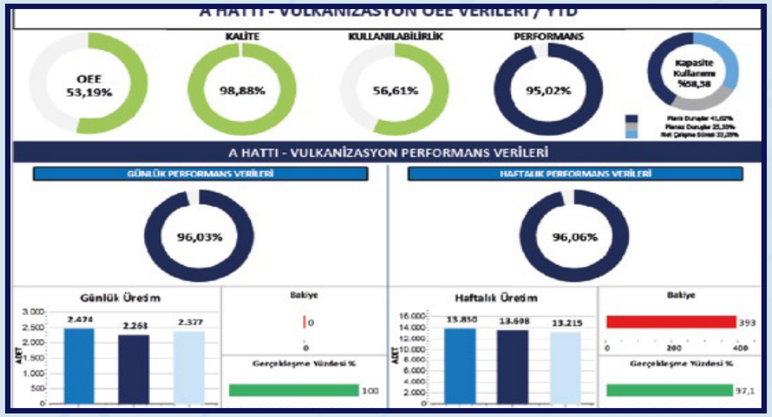
# Fully Integrated with SAP

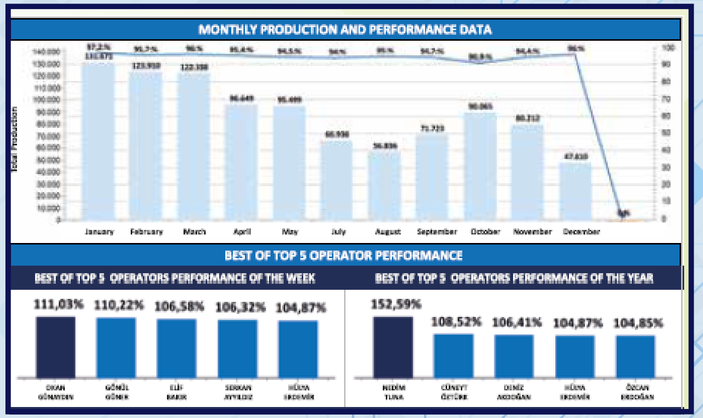
**MES4** as an **SAP add-on** works in harmony with your SAP system via it's real-time bidirectional integration .

All production scenarios such as **repetitive manufacturing**, **discrete manufacturing** and **process manufacturing** or **mix approaches** are fully supported.

Thanks to MES4 capabilities,  production orders can be automatically transferred from SAP to the shop floor, tracked instantly and the realizations can transferred to your SAP system.


SAP Easy Access
Favorites
ZM4_001 - Scrap Definition
ZM4_002 - Scrap Definition-Work Centers
ZM4_003 - Scrap Definition Report
ZM4_004 - Mes4 Work Center Integration
ZM4_005 - Mes 4 Work Order
ZM4_006 - Production Confirmation
ZM4_100 - Mes 4 Outbound Integration Logs
SAP Menu
Connector for Multi-Bank Connectivity
Office
Cross-Application Components
Logistics
Accounting
Human Resources
Information Systems
Service
Tools
WebClient UI Framework
Program Edit Goto System Help
Mes4 Send Work Order Information
Parameters
Work Order Status Active
Integration Status All
Plant 1710 to
Order Number to
Order Type to
Material Number to
Created On 21.05.2023 to 20.07.2023
Entered By to
Basic Start Date to
Basic Finish Date to


KALİTE
KULLANILABİLİRLİK
PERFORMANS
OEE 53,19%
98,88%
56,61%
95,02%
A HATTI - VULKANİZASYON PERFORMANS VERİLERİ
GÜNLÜK PERFORMANS VERİLERİ
HAFTALIK PERFORMANS VERİLERİ
96,03%
96,06%
Günlük Üretim
Haftalık Üretim
Bekiye
Gerçekleşme Yüzdesi %

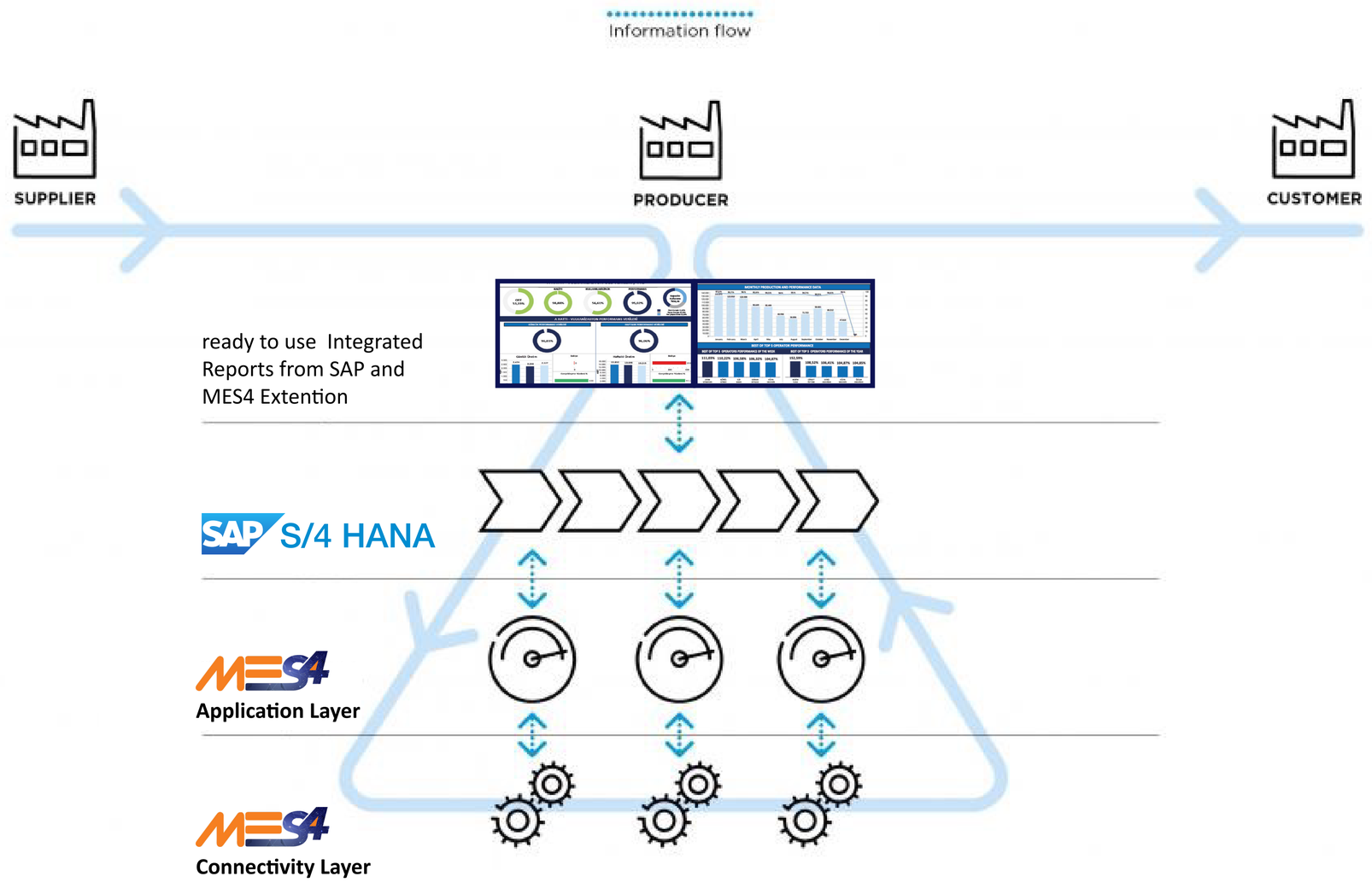

MONTHLY PRODUCTION AND PERFORMANCE DATA
January February March April May July August September October November December
BEST OF TOP 5 OPERATOR PERFORMANCE
BEST OF TOP 5 OPERATORS PERFORMANCE OF THE WEEK
111,03% 110,22% 106,58% 106,32% 104,87%
BEST OF TOP 5 OPERATORS PERFORMANCE OF THE YEAR
152,59% 108,52% 106,41% 104,87% 104,85%

# All-in-One Digital Transformation

Our approach is not limited to production order integration.
Thanks to best-in-breed applications **SAP** and **MES4**, we offer a holistic digital transformation:

- Material Management,
- Quality Management,
- Maintenance Management,
- Shop-floor Human Capital Management
- Product Costing

And many other touchpoints are integrated. Therefore, **MES4** offers a seamless digital transformation and visibility across your company.


Information flow
SUPPLIER
PRODUCER
CUSTOMER
ready to use Integrated Reports from SAP and MES4 Extention
SAP S/4 HANA
MES4
Application Layer
MES4
Connectivity Layer
Shop Floor Area

# Industrial IoT Platform

- Corporate Big Data
- Advanced Analytics
- Machine Learning Applications
- Artificial Intelligence Applications
- Predictive Maintenance
- Line Stabilization
- Anomaly Assessment

# Mobile Remote Management

**MES4** is always by your side. You don’t have to bother to find possible issues out, **MES4** makes the identification for you.

All the details of the shopfloor can be online monitored and online actions can be taken.

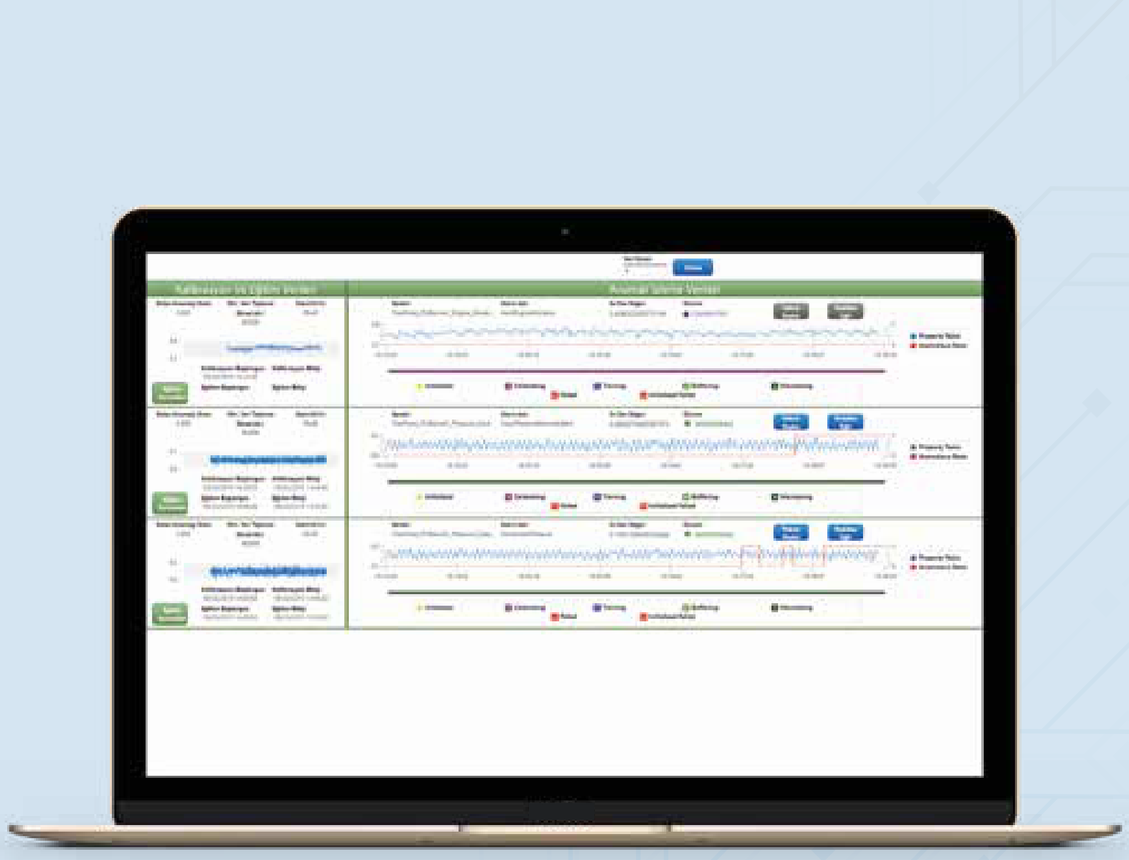
It is possible to make historical data comparison with current data.

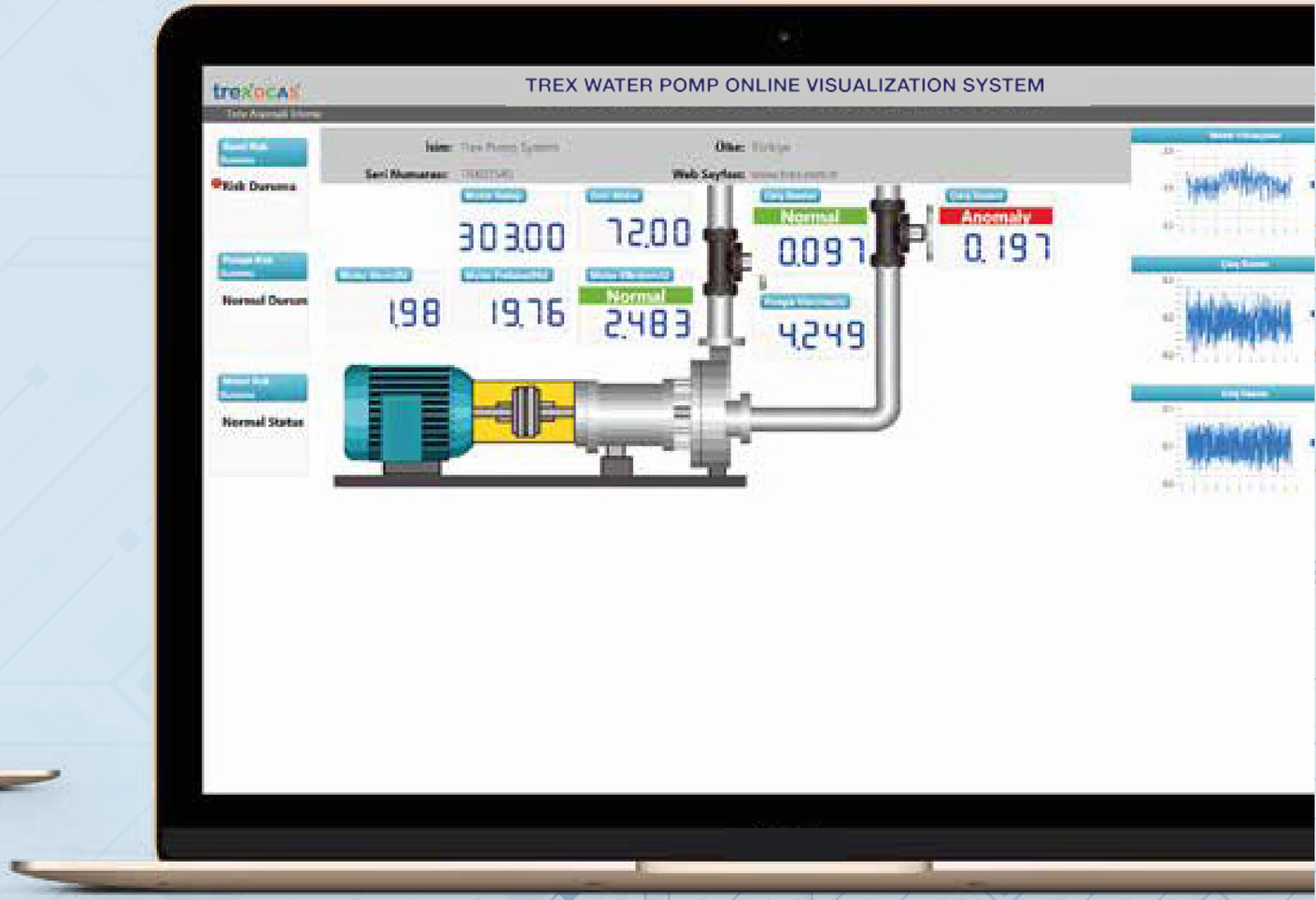
Energy Analysis
Planned Stops
Unplanned Stops
Net Runtime
42.6
4.1
53.3

# Anomaly Assessment System

You don’t have to waste time with standard reporting methods for nonsystematic breakdowns!

**MES4** Anomaly Assessment System will be notifying you about the breakdowns, scraps, OEE and monitoring variable KPIs by analyzing trend analysis in case of anormal circumstances.




TREX WATER POMP ONLINE VISUALIZATION SYSTEM
Risk Durumu
Normal Durum
Normal Status
303.00
72.00
Normal
0.097
Anomaly
0.197
1.98
19.76
Normal
2.483
4.249

# Push Notification System

Machine breakdowns, first confirmation and frequencial quality control breakdowns will be delivered through **SMS, E-Mail and Push Notification**.

In case of breakdowns, authorized individuals are notified within maintained period through push notification.

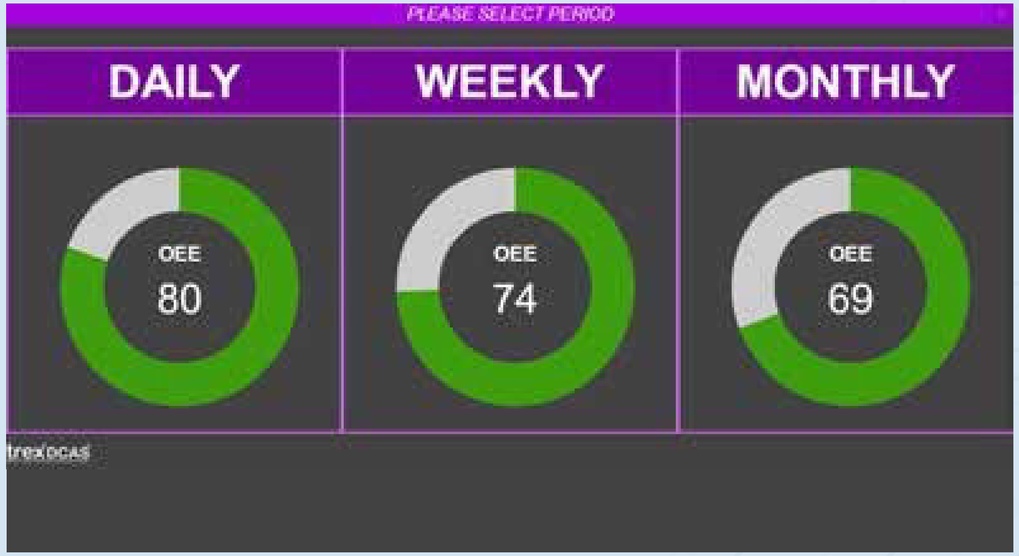
Maintenance team are informed via equipment utilization lifetime tracking.

# ANDON Management

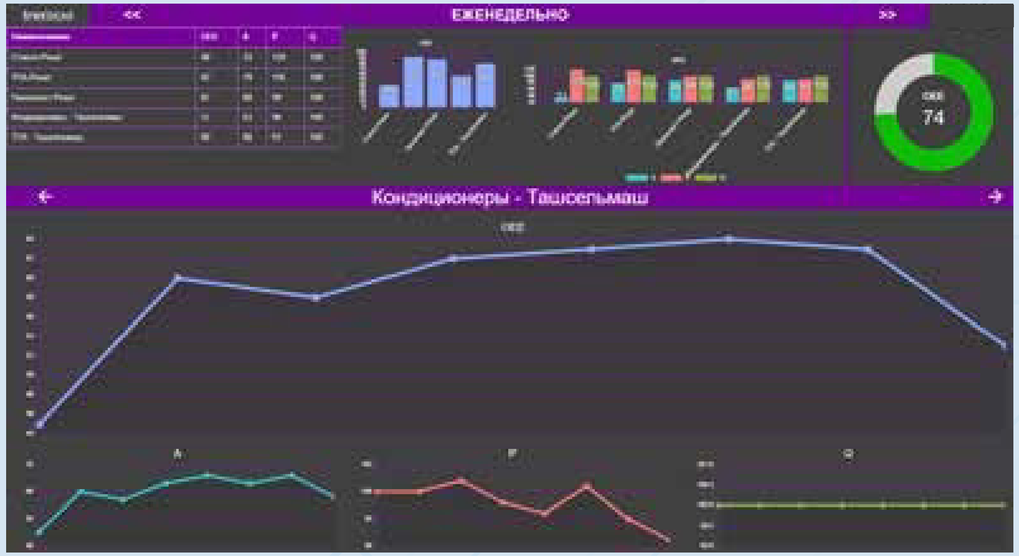
**MES4 ANDON Management System** provides visualization of your plant.
Awareness of all shopfloor employees will be expanded.

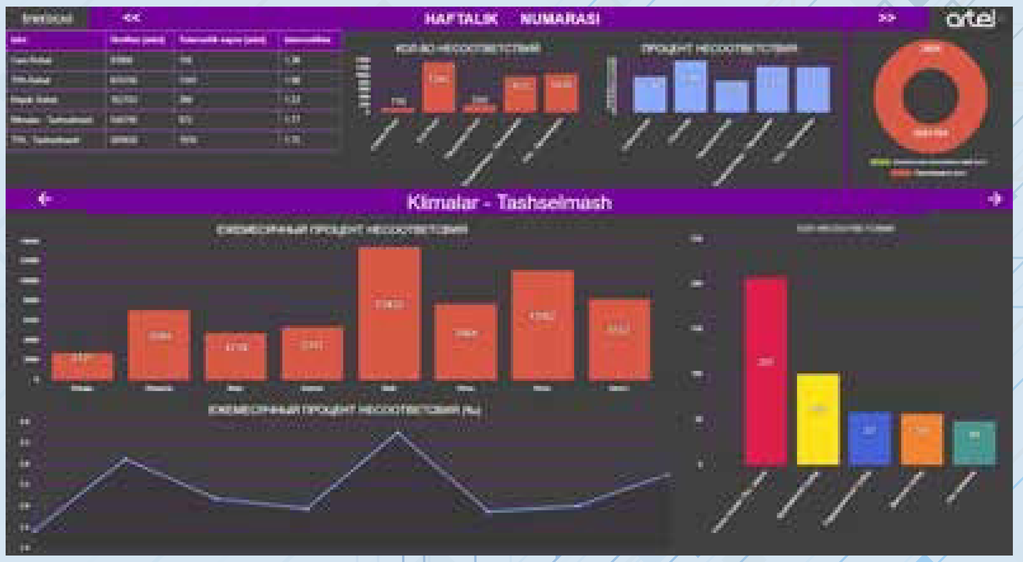
You will have a visual shopfloor with the option of creating the warnings you may need.

In case of possible breakdowns, operations will be stopped and defective manifacturing is avoided. Via specially designed management dashboards and Business Information solutions your production data can be monitored.


PLEASE SELECT PERIOD
DAILY
WEEKLY
MONTHLY
OEE
80
OEE
74
OEE
69
trexocas

HAFTALIK SAATTE
Klimalar - Tashselmash


ЕЖЕНЕДЕЛЬНО
Кондиционеры - Ташсельмаш

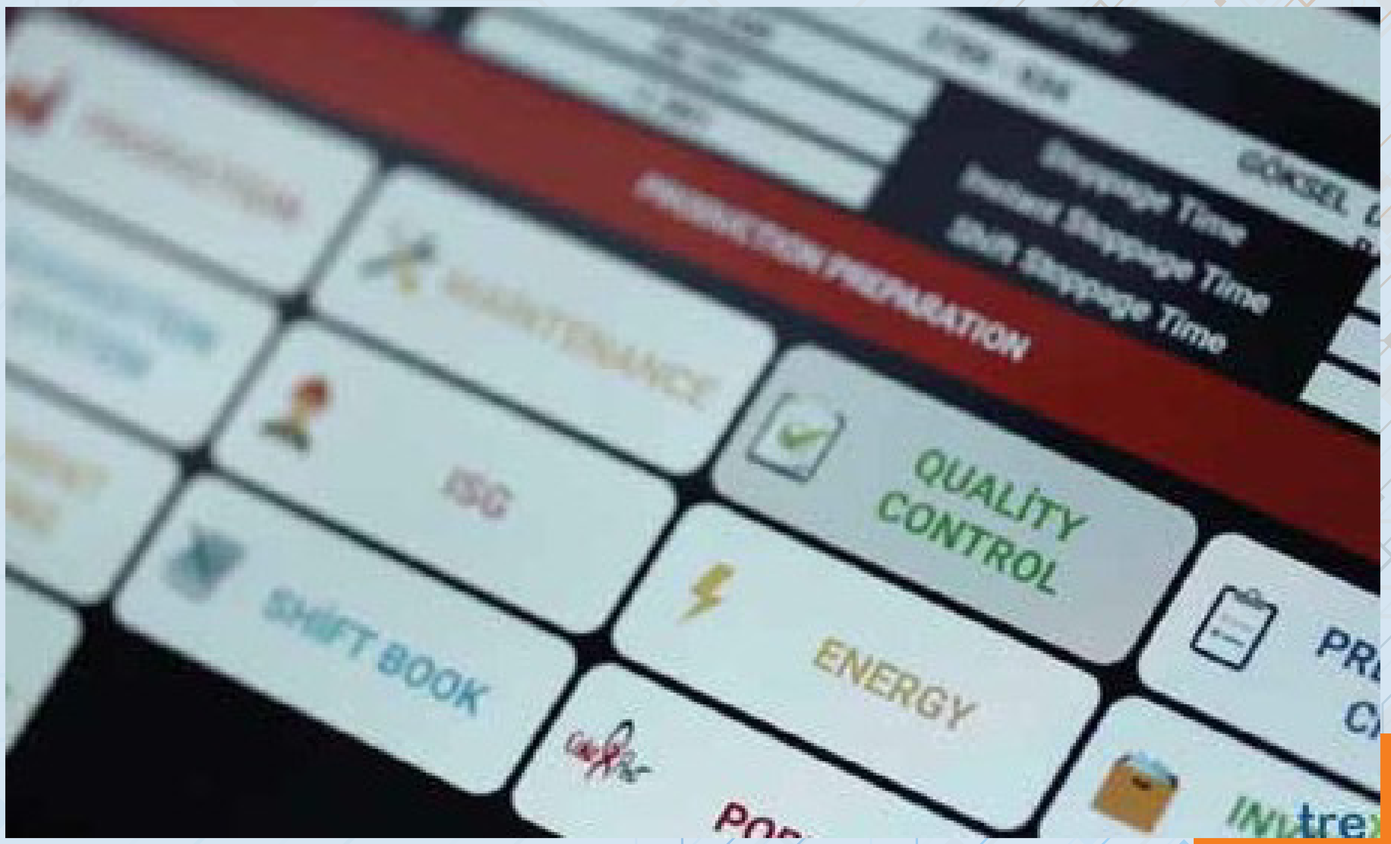

HAFTALIK NUMARASI
Klimalar - Tashselmash

# Quality Management

**MES4 Quality Management System** includes a highly detailed infrastructure making you create records with 16949 standards and be successfully inspected.

- Administrative Acceptance
- Technical Acceptance First Confirmation
- Frequencial Control Final Control
- Supplier Fault Notification forms 8D
- Internal/External Corrective Activity Form and such functions will provide better Management with all quality processes.

FREKANSIYEL KONTROL


MAINTENANCE
ISG
QUALITY CONTROL
SHIFT BOOK
ENERGY

# Basic Maintenance Management

**MES4 Basic Management System** is designed to manage maintenance and repair unit in the best way.

It is possible to create maintenance plans for all the assets in the shopfloor and see the actual costs of them.

By moving your maintenance orders to an electrical platform, you can keep them alive and accessible by the authorized personnel.

By transferring the document or a picture of the way to pull out the gears to the system, you can minimize the training periods and orientation of the team members.

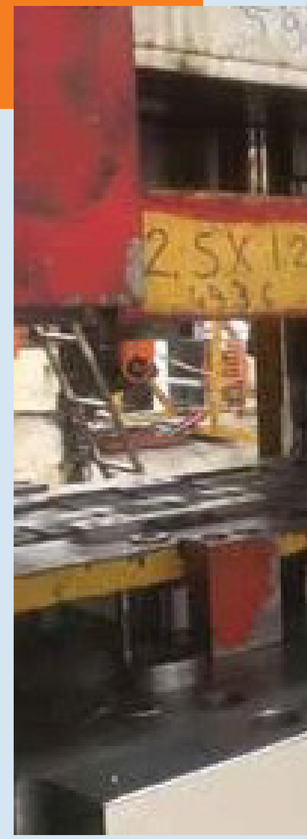
# Validation Management

Each operation cannot be executed by all personnel, some operations should be executed by only authorized person!

**MES4** doesn’t provide this electronically but also mechanically and stops the machine in case if something goes wrong.

It’s not limited by the personnel, the machine can be stopped if the production order requires a mould or barcode reader or LOT reader of raw material in case it’s not phisically read or if the production order require confirmations.

This will make you gain money and time.



# LOT Management

**MES4 LOT Management System** provides whole monitoring.

Monitoring is an essential part of the quality systems. However execution of it is very hard. Because during production confirmations, a lot of data is created to be recorded and if execution of them in the respective time cannot be provided through the LOTs, monitoring is vanished and it creates chaos on the shop floor.

**MES4** today’s Technologies (Barcode, RFID and etc.) provide utilization based on the <The information is derived from the source> principle with whole monitoring.

# Mould Management

Barcode all your moulds, locate them on the shelves, reset the production counters and leave the rest to **MES4 Smart Production System**.

We’ll track all the details for you and you can manage all the moulds in a more efficient way.

**SMED** **Single Minute** **Exchange Of Die** **Maintenance**

Smart Industrial Control System
Dashboard
Overview
Product report
Performance
Product Quality
Machine State
Machine 1
Machine 2
Machine 3
Monthly Summary
Product Quality
Performance
99%
32.04%
Power consumtion
Machine State
25%
67%
Fine

# Cutting Tool Monitoring Management

One of the most important points in metal cutting work centers are the track of cutting tools and wastages.

**To minimize monthly cutting tool wastages,**
**How many parts you've processes with which specific cutting tools?**
**Which operator has processed how many parts which specific cutting tools?**

These questions cannot be gathered by asking the operators!
**MES4** answers all these questions of yours automatically and in a faster way.

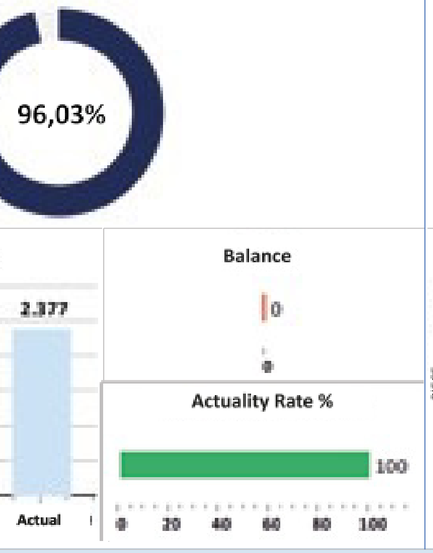
# Automatical Reporting System

**MES4 Automatical Reporting Service** delivers 24 hours production activities different 11 reporting within one PDF file.

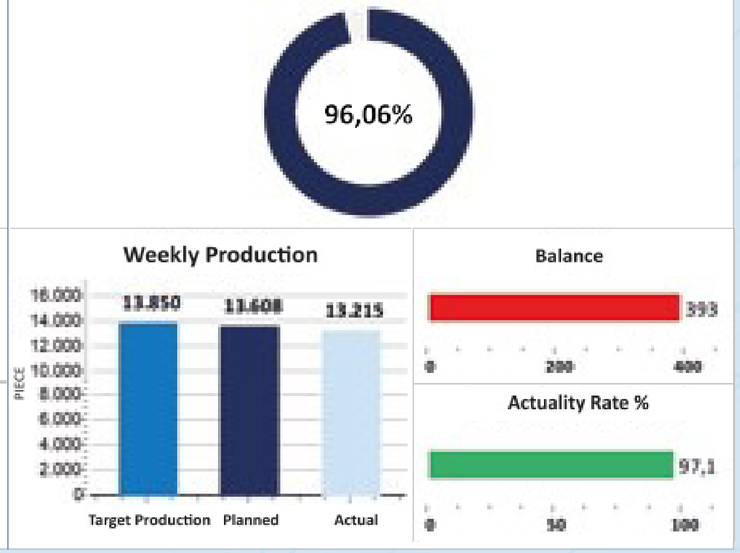
# A-LINE - VULCANIZATION OEE DATA / YTD

## A-LINE VULCANIZATION AVAILABILITY DATA

### AVAILABILITY DATA




### WEEKLY AVAILABILITY DATA

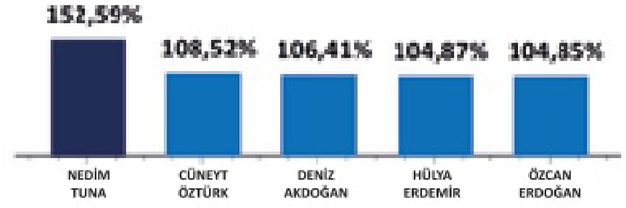



## MONTHLY PRODUCTION AND PERFORMANCE DATA

## BEST OF TOP 5 OPERATOR PERFORMANCE

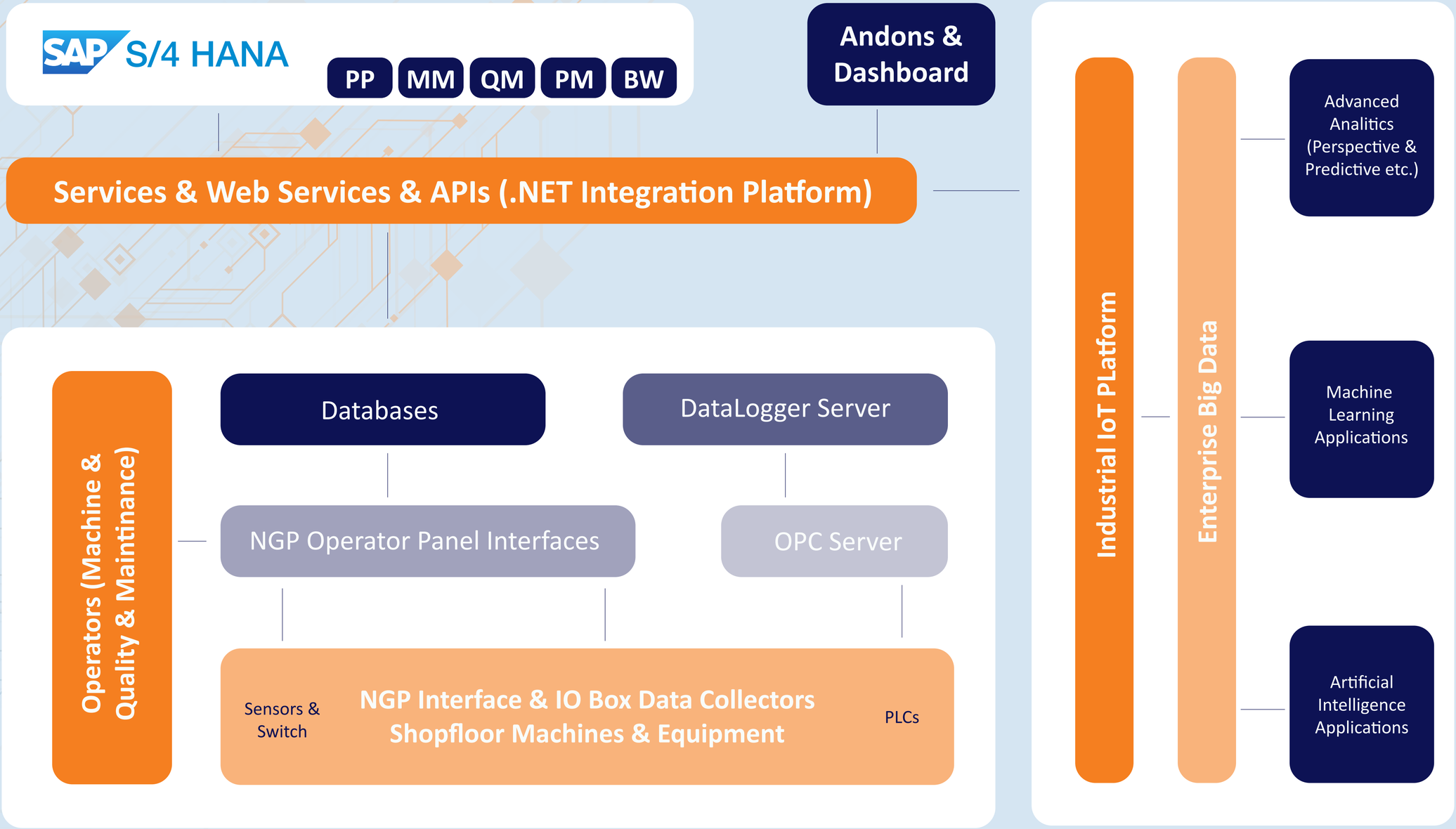
### BEST OF TOP 5 OPERATORS PERFORMANCE OF THE WEEK

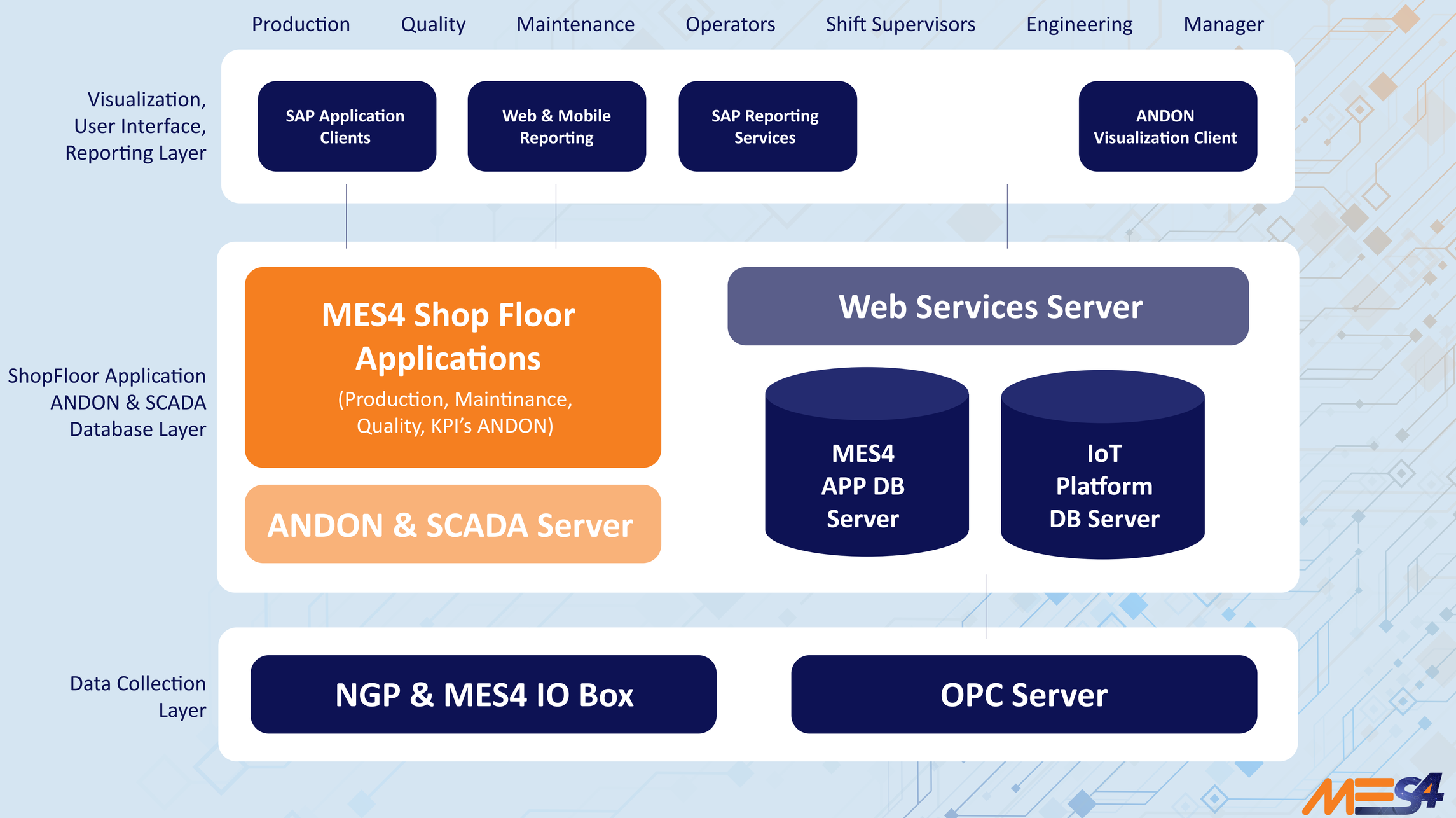
### BEST OF TOP 5 OPERATORS PERFORMANCE OF THE YEAR




## A-LINE - TRACKING OF VULCANIZATION AVAILABILITY REPORT ACTION

| No | Action | Responsible | Date Of Starting | Date Of Ending | Term | Stance | Explanation |
|---|---|---|---|---|---|---|---|
| 1 | With BKM 04 Number Sleeve Cutting Machine Bolts will be changed. | C.TİMUR | 05.04.2019 | 21.04.2019 | 04.08.2019 | OK | Restoration during adjustment |
| 2 | Kabin RUCKS Press's Cooling Cabinet will be changed | C.TİMUR | 20.09.2019 | 21.10.2019 | 04.08.2019 | OK | The expected time for the cooling of mandrels has eliminated. |
| 3 | Kabin Line RUCKS Press will reduce to 2 rooms from 6 rooms. The goal is reducing the effect of OEE by entering 'NO SHIFT ' breakdown. | C.TİMUR | 05.08.2019 | 05.08.2019 | 21.10.2019 | OK | Availability increased to %74 from %65 |


SAP S/4 HANA
PP
MM
QM
PM
BW
Andons & Dashboard
Services & Web Services & APIs (.NET Integration Platform)
Operators (Machine & Quality & Maintinance)
Databases
DataLogger Server
NGP Operator Panel Interfaces
OPC Server
Sensors & Switch
NGP Interface & IO Box Data Collectors
Shopfloor Machines & Equipment
PLCs
Industrial IoT PLatform
Enterprise Big Data
Advanced Analitics (Perspective & Predictive etc.)
Machine Learning Applications
Artificial Intelligence Applications


Production
Quality
Maintenance
Operators
Shift Supervisors
Engineering
Manager
Visualization, User Interface, Reporting Layer
SAP Application Clients
Web & Mobile Reporting
SAP Reporting Services
ANDON Visualization Client
ShopFloor Application ANDON & SCADA Database Layer
MES4 Shop Floor Applications
(Production, Maintinance, Quality, KPI's ANDON)
Web Services Server
MES4 APP DB Server
IoT Platform DB Server
ANDON & SCADA Server
Data Collection Layer
NGP & MES4 IO Box
OPC Server

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# Teşekkürler

## İnsan Kaynakları Departmanı

**Contact Us:** Görükle Mah. Üniversite_1 Cad. Ulutek Teknoloji Geliştirme Binası
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**444 3 468 (IoT)** - **info@mes4.tech**