Understanding SAP's Strategy for Planning, Scheduling, and Mobile Execution

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PUBLIC

SAP acknowledges the First Peoples – the Traditional Owners of the lands on which we gather, the Kombumerri and Yugambeh.
We recognise their continuing connection to land, water and community.
As an organisation, we pay respect to their Elders past, present and emerging.

What will we cover?

- SAP's strategy for Planning, Scheduling, and Mobile Execution

- Demonstrations of the new capabilities

- Explore the future roadmap for these solutions

Digitally enhanced enterprises need next-generation Asset Management to survive the future

SaaS and cloud migration

38% of asset-intensive industries steadily converting legacy systems to cloud-based EAM

Data-driven decisions

87% of executives agree digital twins are becoming essential

From 2021 to 2027, the number of new physical assets and processes that are modeled as digital twins will increase from 5% to 60%,

Sustainability - ESG

Millennials are now the largest demographic in the workforce

Remote and autonomous tasks

70% of organizations will have operationalized AI architectures due to the rapid maturity of AI

Innovation accelerators

EAM applications are increasingly integrated with IoT, digital twin, augmented reality, and location-based service

Changing workforce Human-centric mobility

Mobile work solutions are a game changer for maintenance ALMs

Source: Worldwide Asset Life-Cycle Management Applications Forecast, 2022–2026
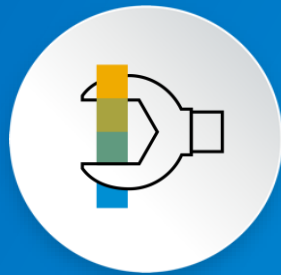*IDC Marketscape 2021, 2022 : Accenture: Gartner*

SAP Strategy for Service and Asset Management
Deliver Next Generation Processes from Acquire to Decommission

Digital Thread

Acquire to Onboard

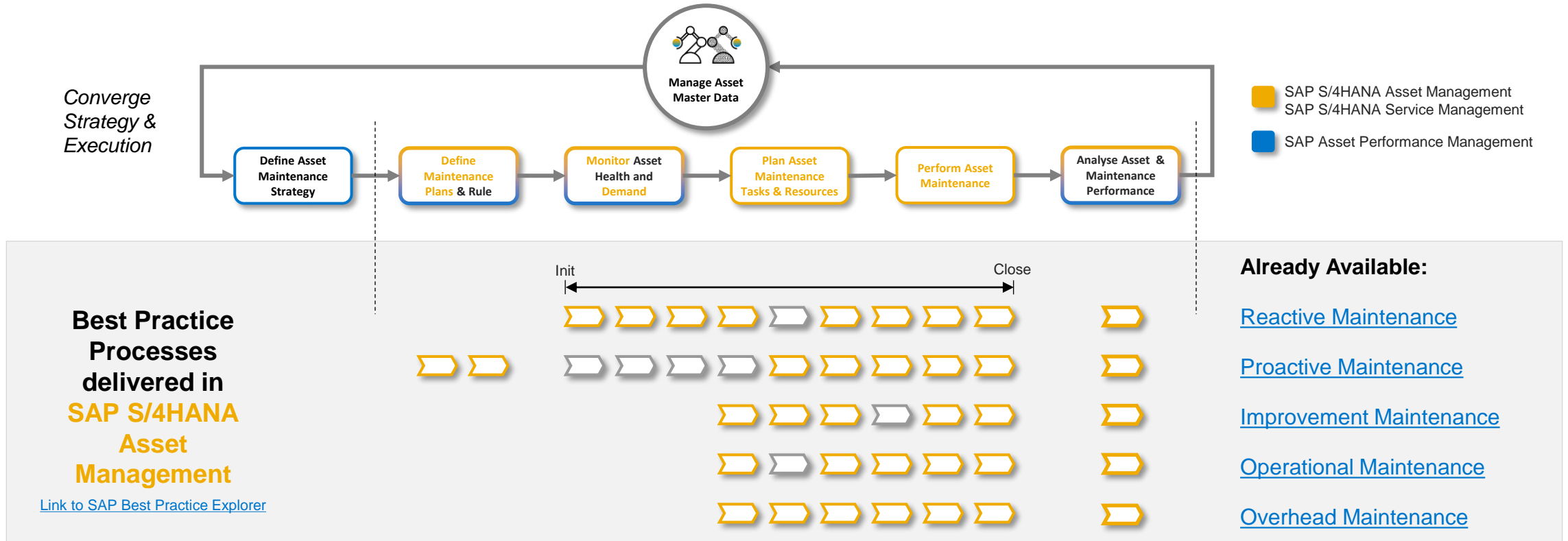Plan to Optimise Assets

Operate to Maintain

Offboard to Decommission

Manage Asset Data

SAP Strategy for Service and Asset Management
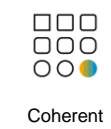## Standardising Planning, Scheduling and Execution Processes

Manage Asset Master Data

Converge Strategy & Execution

SAP S/4HANA Asset Management
SAP S/4HANA Service Management

SAP Asset Performance Management

| Define Asset Maintenance Strategy | Define Maintenance Plans & Rule | Monitor Asset Health and Demand | Plan Asset Maintenance Tasks & Resources | Perform Asset Maintenance | Analyse Asset & Maintenance Performance |

Init ← → Close

Best Practice Processes delivered in

SAP S/4HANA Asset Management

Link to SAP Best Practice Explorer

Already Available:

Reactive Maintenance

Proactive Maintenance

Improvement Maintenance

Operational Maintenance

Overhead Maintenance

Planned:
In-House Refurbishment, Refurbishment with Subcontractors, Inspection Rounds, Predictive Maintenance, Collaborative Maintenance and Service

Tailor-made process, and process step oriented, role-specific user interfaces - Fiori based with real time embedded analytics
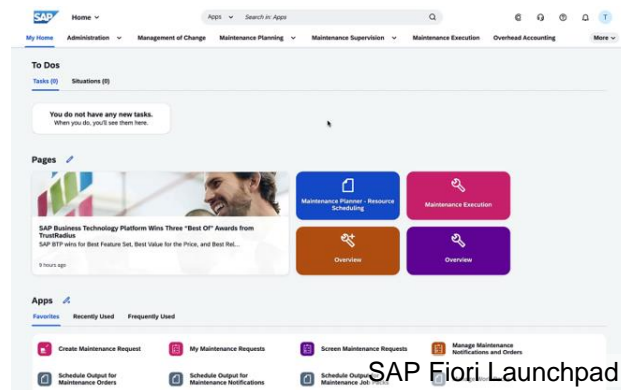
| INIT Initiation | SCRN Screening | PLAN Planning | APPR Approval | PREP Preparation | SCED Scheduling | EXEC Execution | POST Post-Execution | CLOS Closure |

SAP Strategy for Service and Asset Management
SAP Fiori to support the end-to-end process

Role-based   Delightful   Coherent   Simple   Adaptive

SAP Fiori Launchpad as single point of entry

SAP Fiori Launchpad

Start from an individual home page:

- Role-based spaces and pages
- Customisation via dedicated apps
- First insights with KPI tiles

SAP Fiori Apps Reference Library

Domain-specific information and actions

Maintenance Planners

Investigate and drill-down from:

- Overview pages (graphical)
- Analytical list pages (hybrid)
- List report / worklist (list)
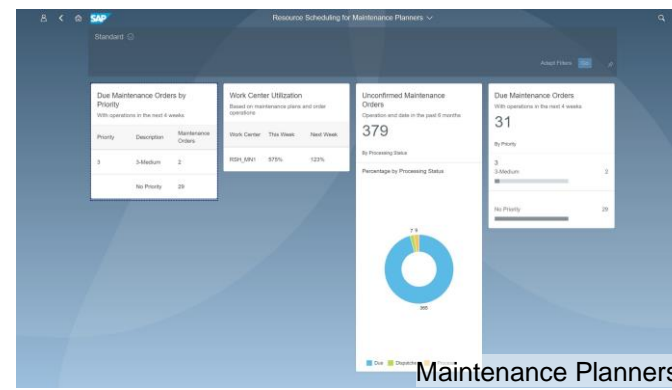
Enter details and explore in depth

Maintenance Scheduling Board

Carry out transactions:

- Combined in reimagined native SAP Fiori apps
- Based on insights from embedded analytics
- With the SAP Fiori visual theme

SAP Strategy for Service and Asset Management
Suite of SAP and Partner solutions to deliver next generation processes

Acquire to Onboard	Plan to Optimise Assets	Operate to Maintain	Offboard to Decommission	Manage Asset Data
Acquire and onboard assets in collaboration with entire asset ecosystem	Identify the right mix of maintenance strategies and optimise maintenance activities with real-time monitoring	Plan, schedule, and execute maintenance activities in an efficient manner	Decommission assets in compliance with necessary regulations	Create and maintain asset master data in a streamlined manner

Asset Acquisition
- SAP S/4HANA
- SAP Business Network for Procurement
- SAP S/4HANA for Real Estate Operations

Asset Construction and Build
- SAP S/4HANA
- SAP S/4HANA Enterprise Portfolio and Project Management
- SAP S/4HANA Cloud for projects
- SAP Capital Project Engineering Management by Siemens

Asset Commissioning
- SAP S/4HANA
- SAP Business Network Asset Collaboration
- SAP Extended Enterprise Content Management by OpenText
- Prospecta Master Data Online

Asset Strategy and Planning
- SAP S/4HANA
- SAP S/4HANA Enterprise Portfolio and Project Management
- SAP Asset Performance Management
- Copperleaf Portfolio

Asset Maintenance and Optimisation
- SAP S/4HANA
- SAP Asset Performance Management

Asset Maintenance Planning
- SAP S/4HANA
- SAP S/4HANA Asset Management for resource scheduling
- SAP Business Network Asset Collaboration
- SAP Field Service Management

Asset Maintenance Execution
- SAP S/4HANA
- SAP S/4HANA Spatial Asset Management
- SAP S/4HANA Work Clearance Management
- SAP Business Network Asset Collaboration
- SAP Service and Asset Manager
- TeamViewer Frontline Assist

Asset Decommissioning and Disposal
- SAP S/4HANA
- SAP S/4HANA for Real Estate Operations
- SAP S/4HANA Enterprise Portfolio and Project Management

Asset Information Governance
- SAP S/4HANA
- SAP S/4HANA Management of Change
- SAP Extended Enterprise Content Management by OpenText
- Prospecta Master Data Online
- Nextspace Digital Twin Cloud Platform

Collaborative Asset Lifecycle
- SAP S/4HANA
- SAP Business Network Asset Collaboration
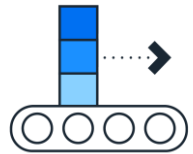- SAP Field Service Management
- SAP Crowd Service

Sustainability Operations
- SAP S/4HANA
- SAP S/4HANA Worker Safety Management
- SAP S/4HANA Environment Management

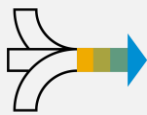# Planning, Scheduling & Mobile Execution – Process Overview

Answers the needs of customers who want to visualise and manage the capacity and load on the level of work centers in a first step and optimise their planning and assign the work to the right technician (skills, location, availability) within a work center in a second step

Work Order Preparation, Material Reservations, Buckets

Work Order is assigned to the right Work Center and the right time

Order is Dispatched (skills, location, availability) to Technician

Order executed by Technician or Team

Preparation
S/4HANA

- Planning Buckets
- Events
- Material Availability
- Procurement
- Lean Services

Capacity Leveling
Asset Management for Resource Scheduling

- Work Center Capacity Leveling
- Build relationships between order operations
- Schedule simulations and check the capacity forecast
- Collaboration on and Feedback for Schedules
- Freeze a schedule to create a snapshot and track attainment

People Dispatching
Field Service Management

- Resource, Skills & Shift Management
- Team & Crew configuration
- Absence management
- Tool management
- Optimise schedule and resource assignment

- Teams & Technician Dispatch
- Track Execution and react to schedule changes
- (Optional: Crowdsourced Service / Engagement with 3rd Party Workforce)

Order Execution
Mobile

- Technician or Crew performs the Work Order

- Reports back time
- Spare parts
- Checklists
- Follow-on Notifications
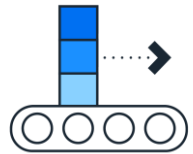
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Center Capacity Leveling

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SAP S/4HANA Asset Management
Preparation & Maintenance Backlog

Maintain asset and equipment master data for operations including configurations; maintenance policies, task lists, equipment characteristics, and geo-spatial data

Manage maintenance and service backlog of all types including pro-active and re-active demand, inspections and project based installations and overhauls

Build work package to plan activities in detail, including time, material, tools, safety permits and documentation

Orchestrate fulfillment with optimized coordination between procurement, manufacturing, supply chain and other logistic support teams

SAP S/4HANA Asset Management

Planning Buckets & Maintenance Backlog

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S/4HANA	Asset Management for Resource Scheduling	Field Service Management	Mobile

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Work Center Capacity Leveling

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SAP S/4HANA Asset Management for Resource Scheduling
Enablers for Capacity Planning

Teams & Work Center Management
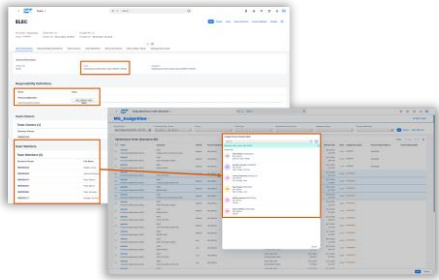
Assignment of Person Responsible from Work Center Team

Reoccurring Schedules
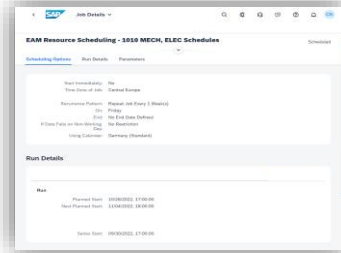
Ability to use scheduling templates, and configure scheduling rules

Capacity Planning
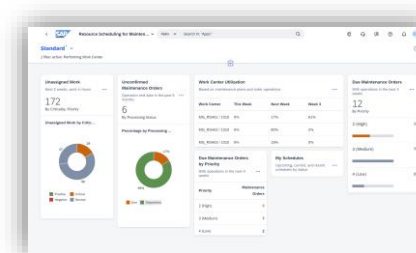
Visualise work center utilisation (including maintenance plans)
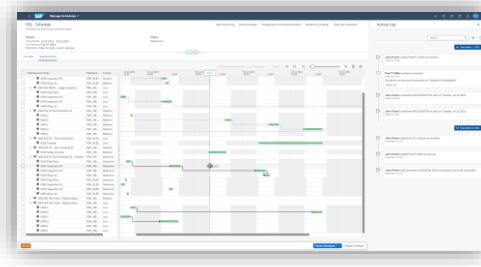
Medium-Long Term Planning
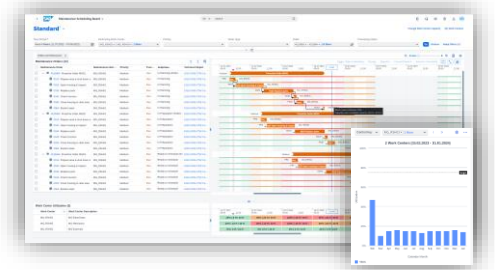
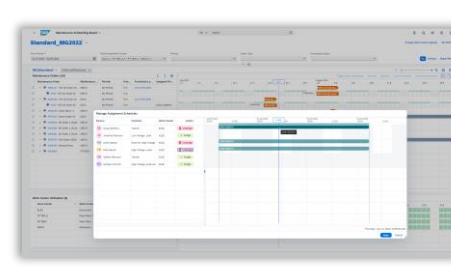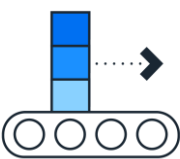Mid-/long term planning looking several months to a year out in the calendar.

Scheduling for Assets
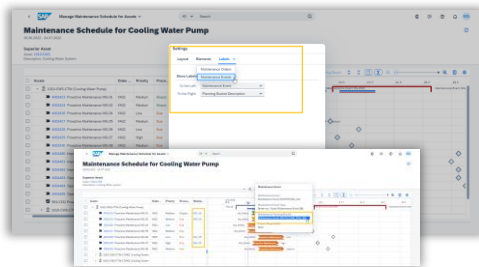
View assets in their hierarchical structure with corresponding orders/operation and trigger scheduling

Auto-scheduling

Trigger auto-scheduling with scheduling logic to determine optimal sequence

Lightweight Dispatching*

Enable lightweight (manual) dispatching in RSH based on teams & responsibility management from Gantt

Monitor Execution
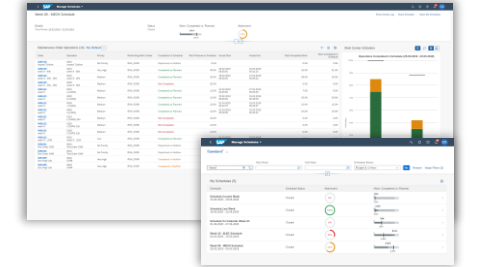
Get insight into execution with graphical and list views and for schedule execution

Maintenance Backlog Card and External Procurement Card

SAP S/4HANA Asset Management for Resource Scheduling
Capacity Planning & Flow of Work

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Order Execution

Mobile

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- rts back time
- e parts
- lists
- on Notifications

SAP Field Service Management
Optimise resource assignments for efficient execution

Optimise work and resource schedules using advanced rules, automatic routing and scheduling
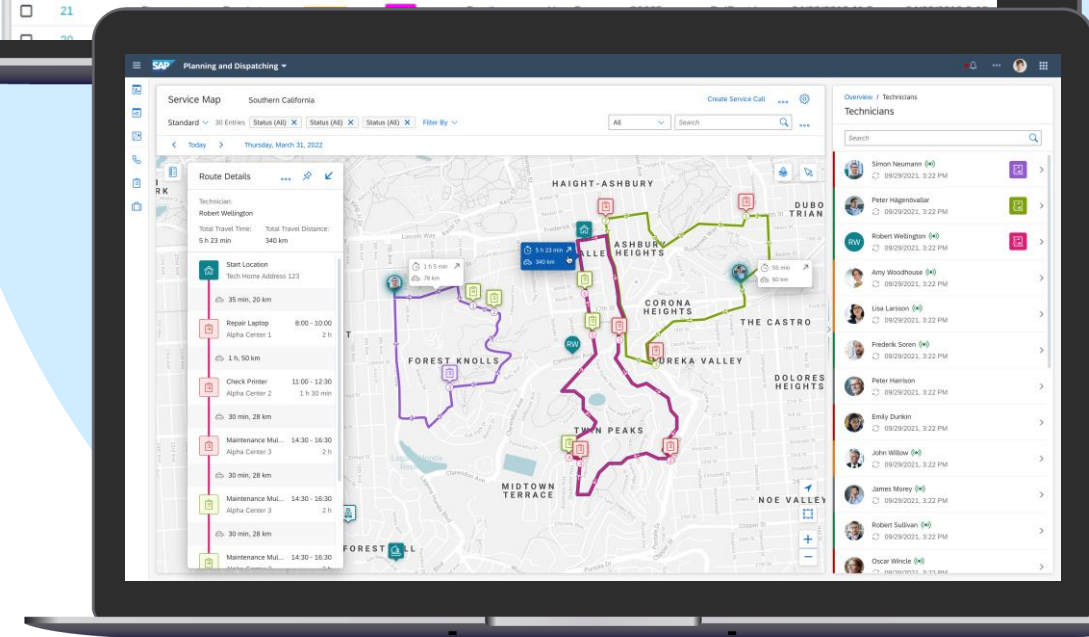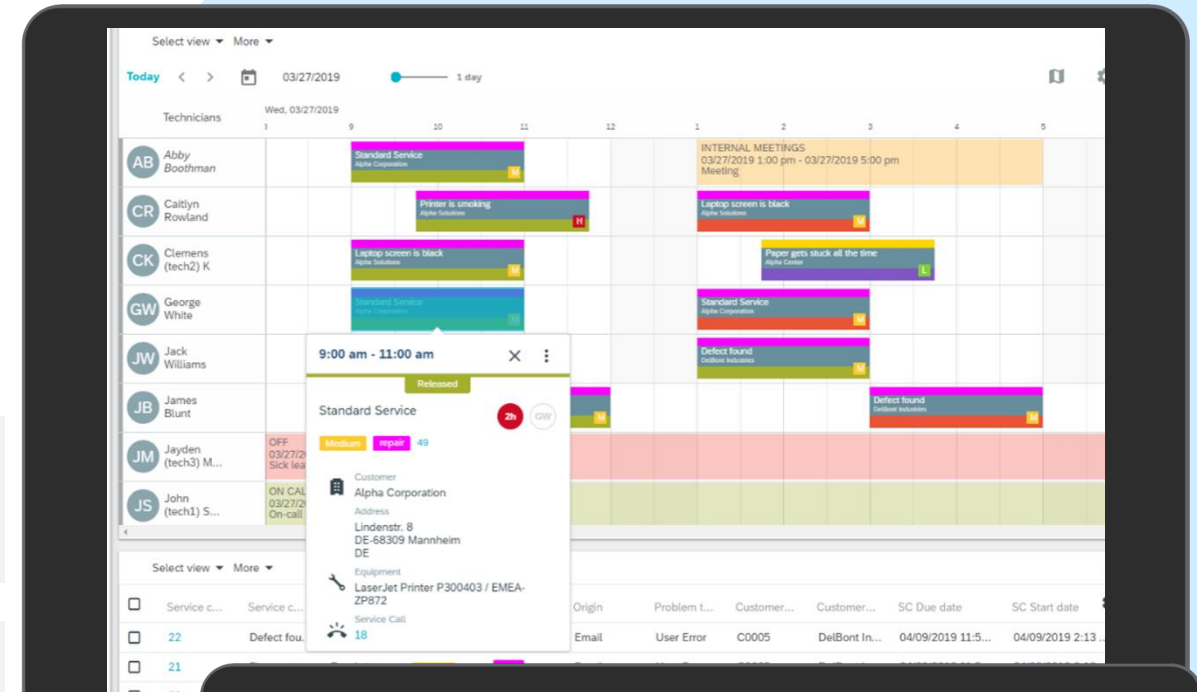
Dispatch in real time to optimally match work to technician availability and skills
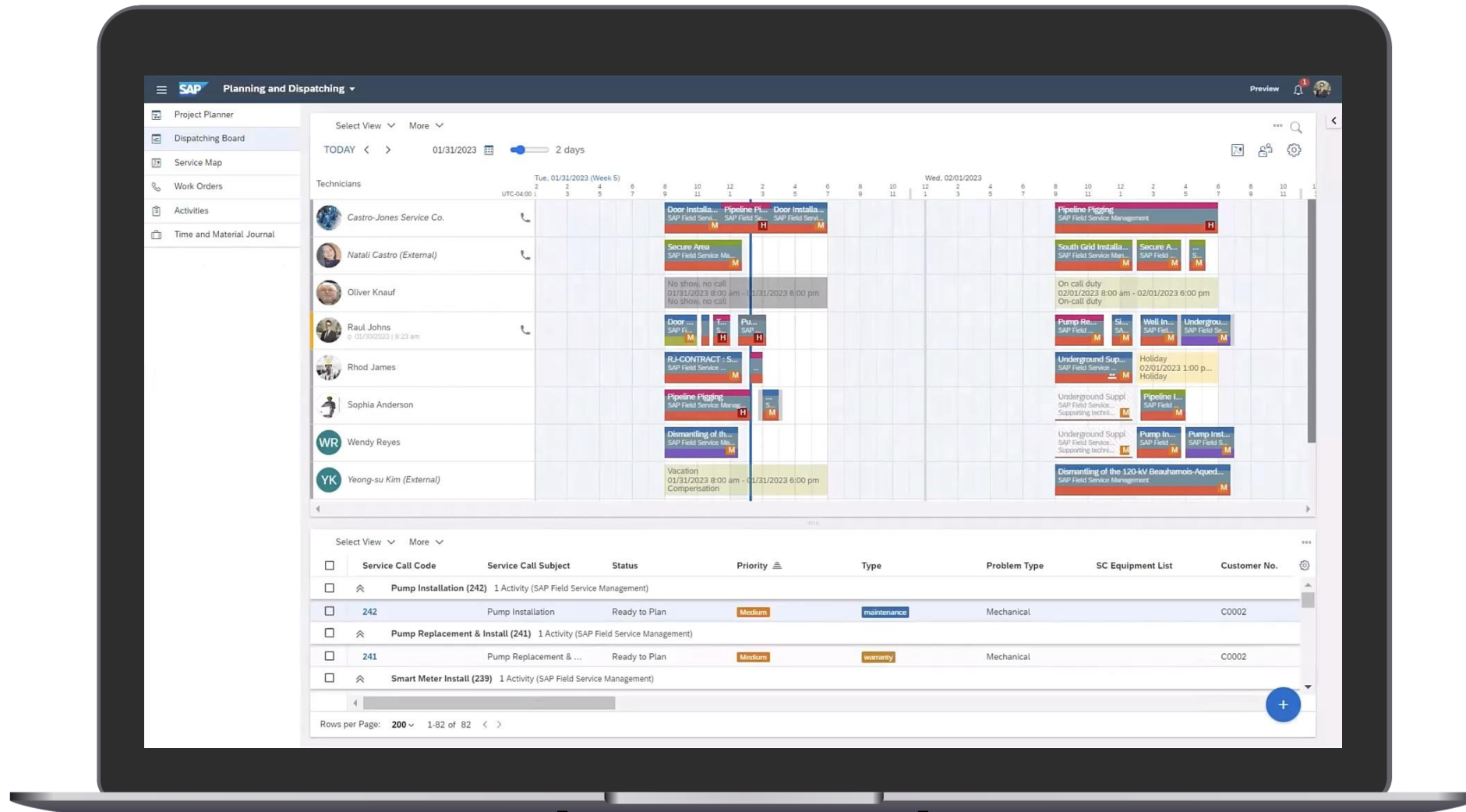
Monitor schedule compliance metrics of planned vs actual work completed

Intelligently source and manage third party resources through Crowd Sourcing and Partner Collaboration

Optimise resource for efficient execution – real time scheduling

Reacting to Schedule Changes

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SAP Service and Asset Manager
Offline capable Order Execution

Eliminate paperwork while reducing downtime and maintenance and service backlog

Capture and integrate asset performance data between mobile and back-end systems at the "point of performance"

Provide asset intelligence, failure modes, work instructions, history and IoT sensor data to enable pro-active fault diagnosis and prescriptive maintenance

Manage existing work and asset data whether you're online, offline, or occasionally connected

Timely, relevant, and accurate information for current inventory levels of spare parts even when supply chains are disrupted
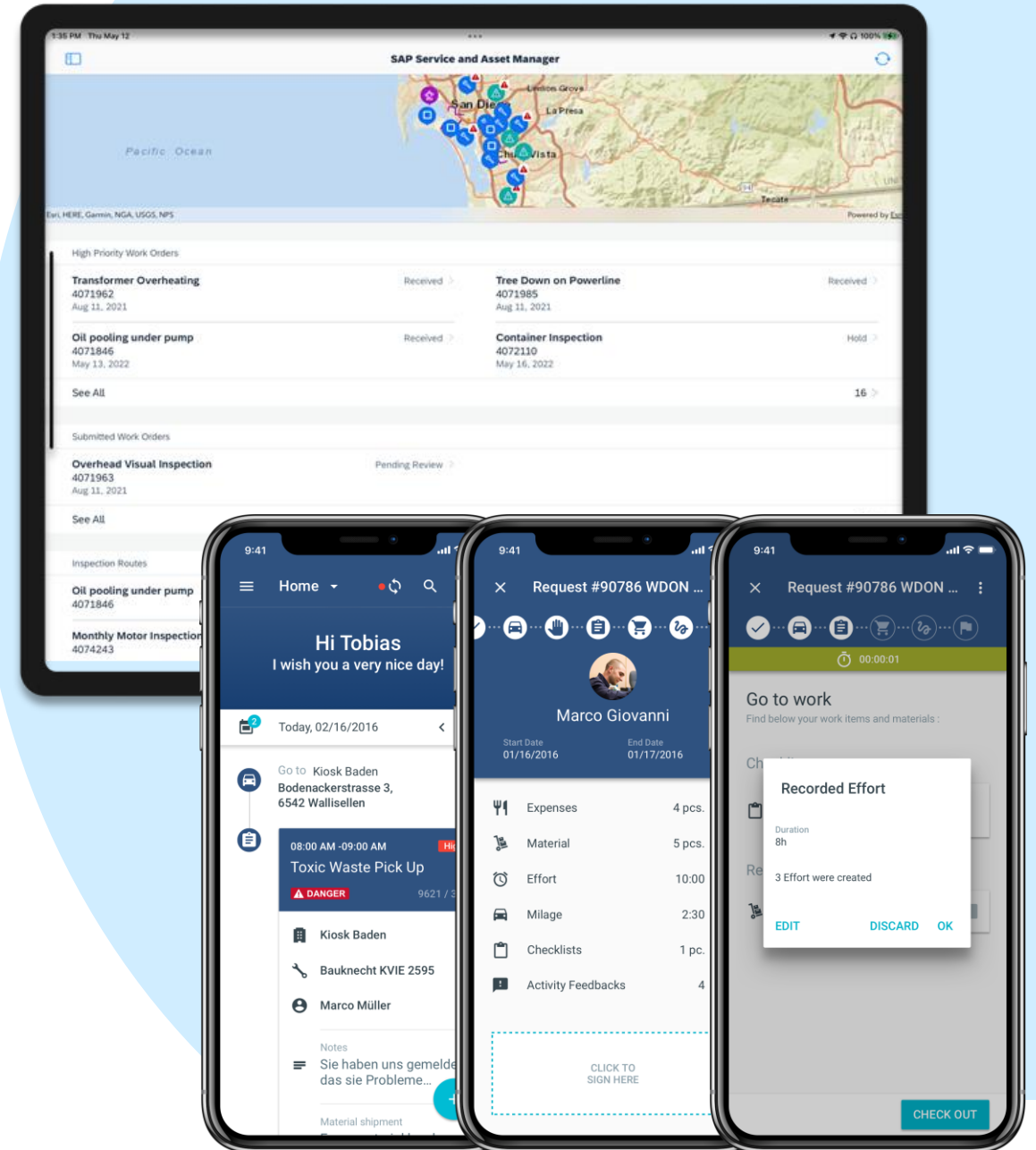
Persona-driven efficiency

Maintenance Technician
Executes proactive and reactive maintenance activities on plant assets

Inventory Clerk
Manages parts and materials used in the maintenance or service execution process

Service Technician
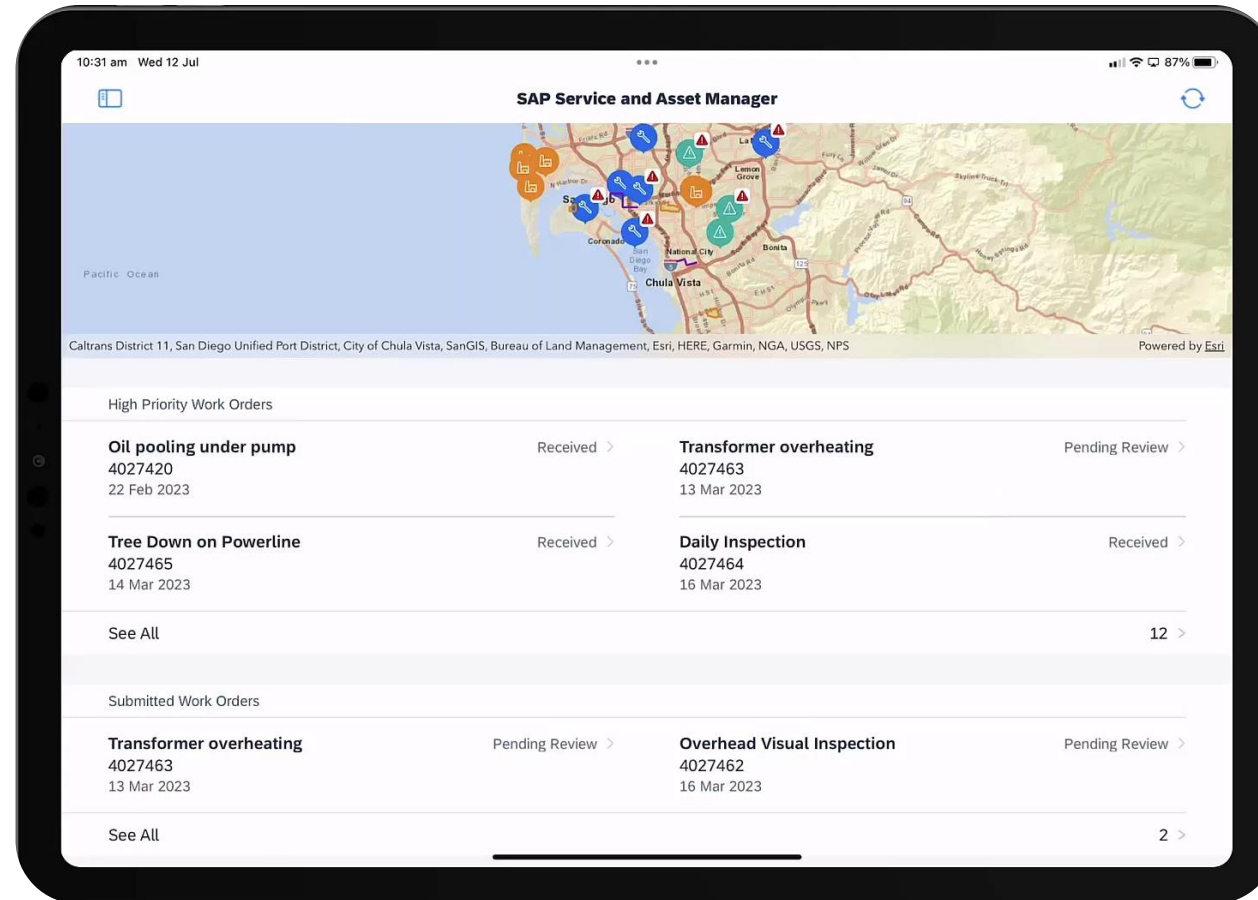Executes service orders for customers at different locations

NEW!* Safety Engineer
Isolates equipment to create a safe zone for maintenance activities

*Supported with 2305 release of SAP Service and Asset Manager.

Offline capable Order Execution

What are the key takeaways?

- SAP continues to make significant investments into our Service and Asset Management portfolio

- Some capabilities are only available in S/4HANA

- Cloud deployment supports more rapid adoption of innovation

Thank you.

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