

# Redefining Asset Management in the Digital World with Asset Network Solutions from SAP

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**PUBLIC** 



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## **SAP Enterprise Asset Management (SAP EAM) solution**

Trends in asset management

- **ISO 55001,** ISO 14001, ISO 45001,...
- Optimizing cost, risk, and performance
- Balancing OPEX with CAPEX
- Meeting stakeholder expectations
- Empowerment of practitioners
- Collaboration between EPCs, OEMs, service providers, and operators

Business challenges

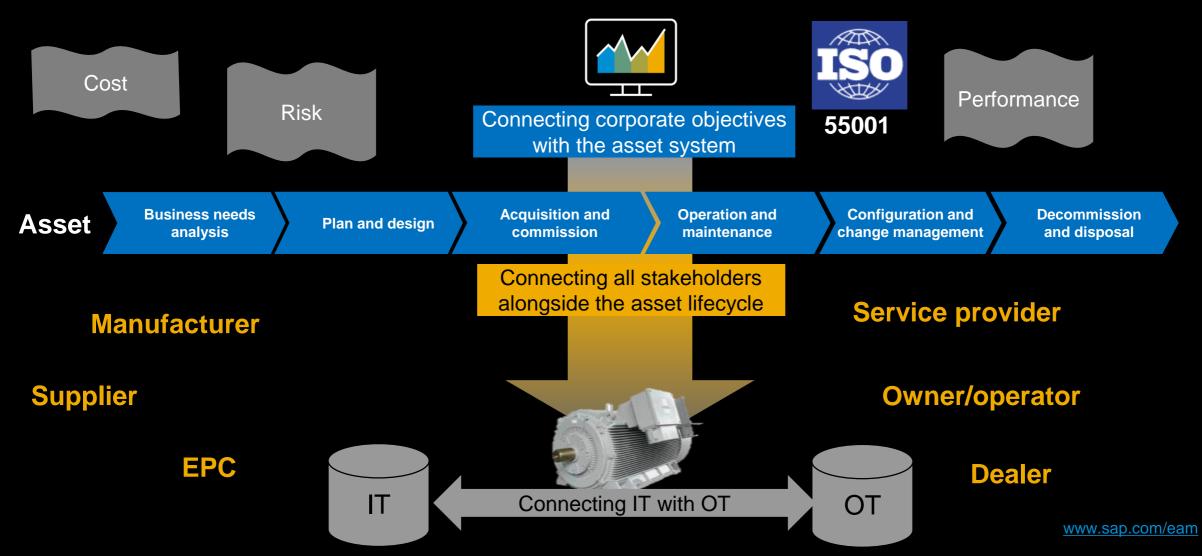


Technology enablers

- Internet of Things (IoT) to scale connectivity
- Big Data for getting insight from IT and OT
- Analytics for prediction and simulation
- Machine learning to improve on business decisions
- Enterprise mobility to empower employees
- Cloud for collaboration

### **SAP Enterprise Asset Management**

Asset management in an ever-more-connected world ...



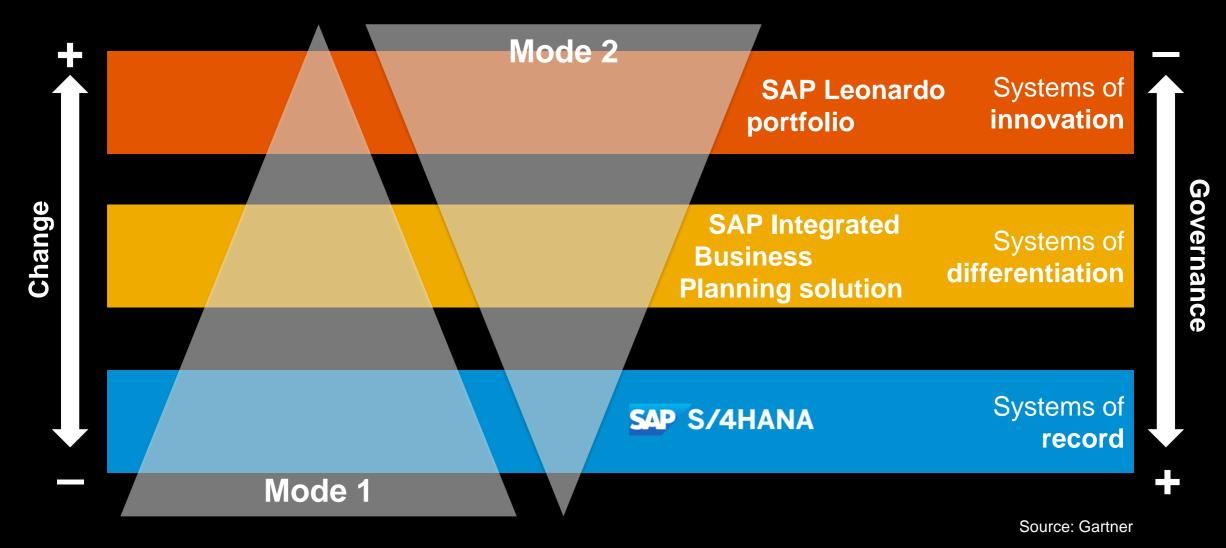
## **SAP Enterprise Asset Management**

Supporting asset management processes from end to end

Portfolio and project management	Asset operations and maintenance	Environment, health, and safety	Asset network
Idea management	Asset strategy and performance	Incident management	Asset information collaboration
Portfolio management	Maintenance planning and scheduling	Health and safety management	Asset information governance
Project management	Maintenance execution	Environment management	Predictive maintenance and service
Resource management	Mobile asset management	Management of change	
Project connectivity		Maintenance safety and permit to work	

## **Bimodal IT according to Gartner**

Systems of record vs. systems of innovation



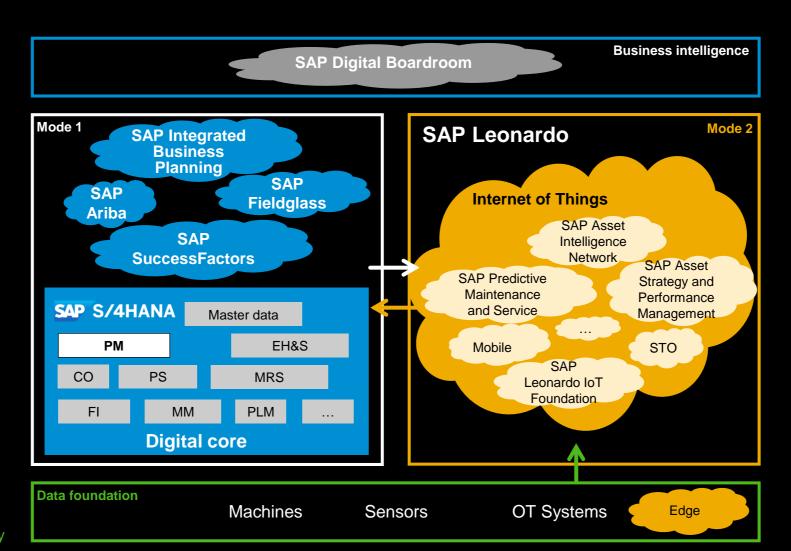
## **Envisioned logical architecture for SAP Enterprise Asset Management**

Strategic direction

Run businesses

Hyper-automate business

processes



#### Steer businesses

Deliver insights to drive strategic decisions

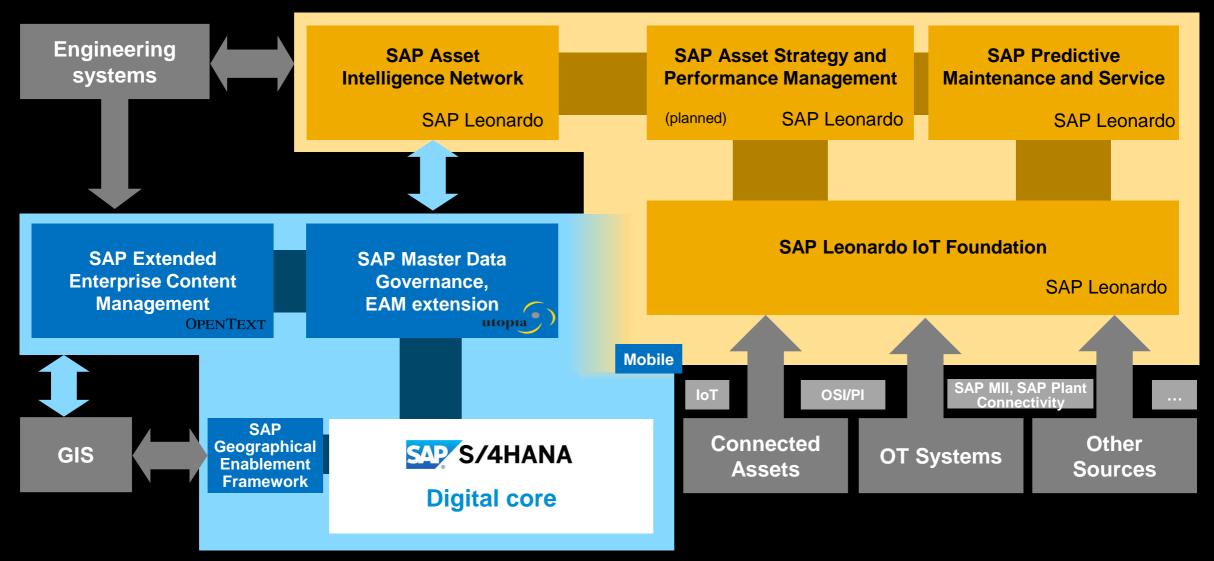
## Differentiate businesses

Intelligently connect people, things, and businesses

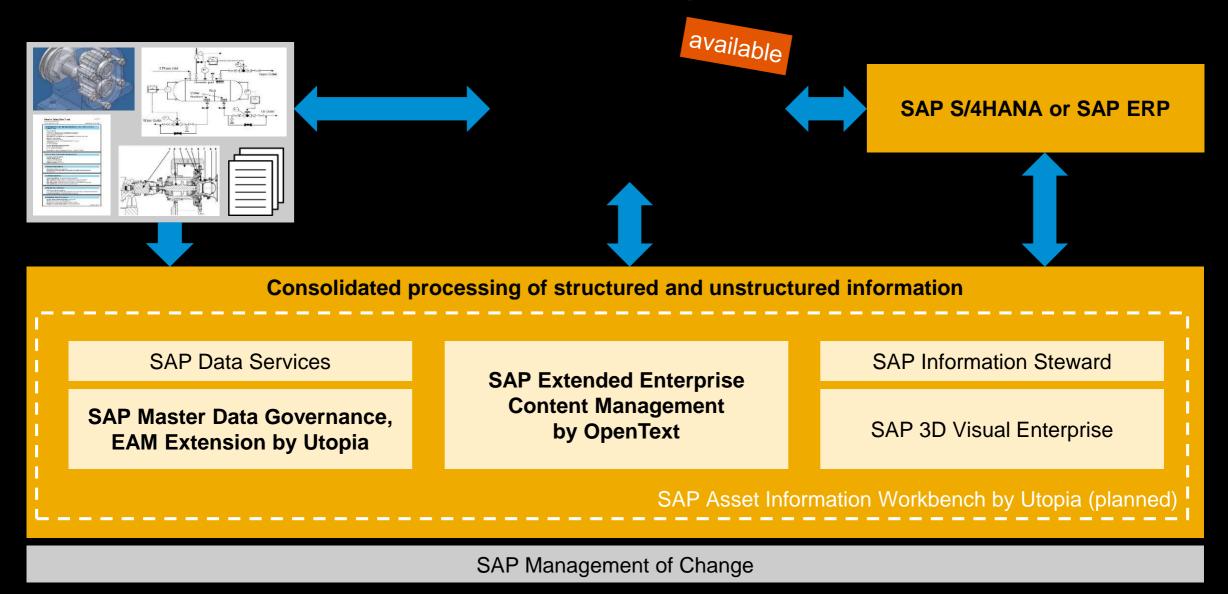
#### Embrace data

Orchestrate data of any volume, velocity, and variety

# **Envisioned logical architecture for asset management**More details



## SAP's approach to asset information management



## **SAP Asset Intelligence Network**



#### www.sap.com/ain

Nameplate info

Maintenance strategy

3D parts # / BOM

Service bulletins and revs

Failure modes

Recalls

Safety controls

**Process controls** 

Service bulletin

Designs and drawings

Design improvements

Sensor definition

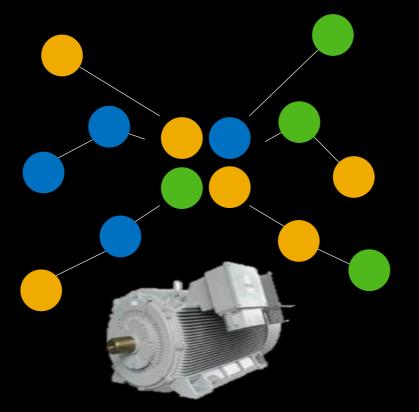
Licensing

Operating instructions

Maintenance instructions

Safety instructions

Product training



Service bulletin receipt

Service bulletin processed

**Usage information** 

Installation information

Failure / incident data

Design recommendations

Risks and controls

Measurement documents

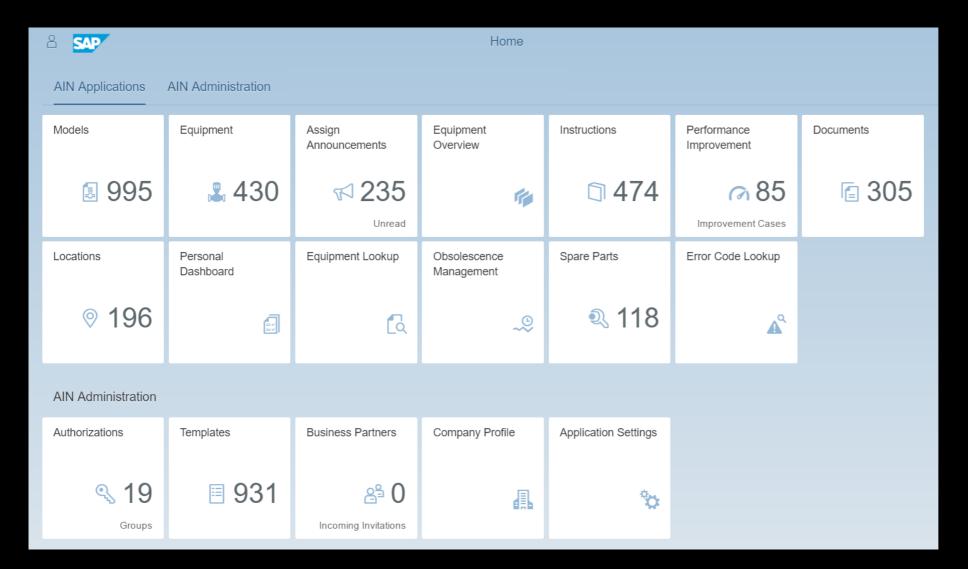
**Telemetry** 

**Manufacturer** 

Service provider

**Operator** 

## **SAP Asset Intelligence Network**



#### Admin apps

- Business partners
- Authorizations
- Templates

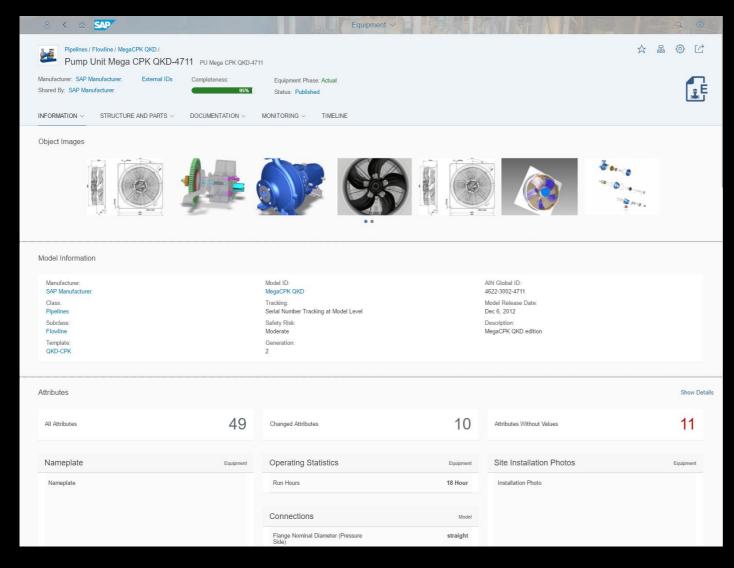
#### Master data apps

- Models
- Equipment
- Locations
- Spare parts
- Documents
- Instructions

#### Process apps

- Performance improvement
- Obsolescence report
- Error code lookup

## SAP Asset Intelligence Network



#### Information

- Model information
- Model attributes
- Equipment attributes
- Installation information
- Lifecycle information

#### Structure and parts

- Structure
- Spare parts

#### Documentation

- Model documents
- Equipment documents
- Instructions
- Announcements

#### Monitoring

- Measuring points
- Error codes
- Improvement cases
- Timeline

### **SAP Predictive Maintenance and Service solution**

From sensor to insight to outcome

#### Sensor

## Connected assets

- Onboarding
- Connectivity
- Device management
- Security

#### **Data**

## IT/OT convergence

- Big Data ingestion
- Big Data infrastructure
- Merging sensor data with business information

### Insight

## Data analysis

- Root cause analysis
- Asset health monitoring
- Machine learning
- Anomaly detection
- Triggering of corrective actions

#### Action

## Maintenance activities

- Prioritized maintenance and service activities
- Optimized warranty and spare parts management
- Prescriptive maintenance
- Quality improvements

#### **Outcome**

## Business value

- Customer experience
- Increased quality
- Lower costs
- Operational efficiency
- R&D effectiveness
- Material procurement



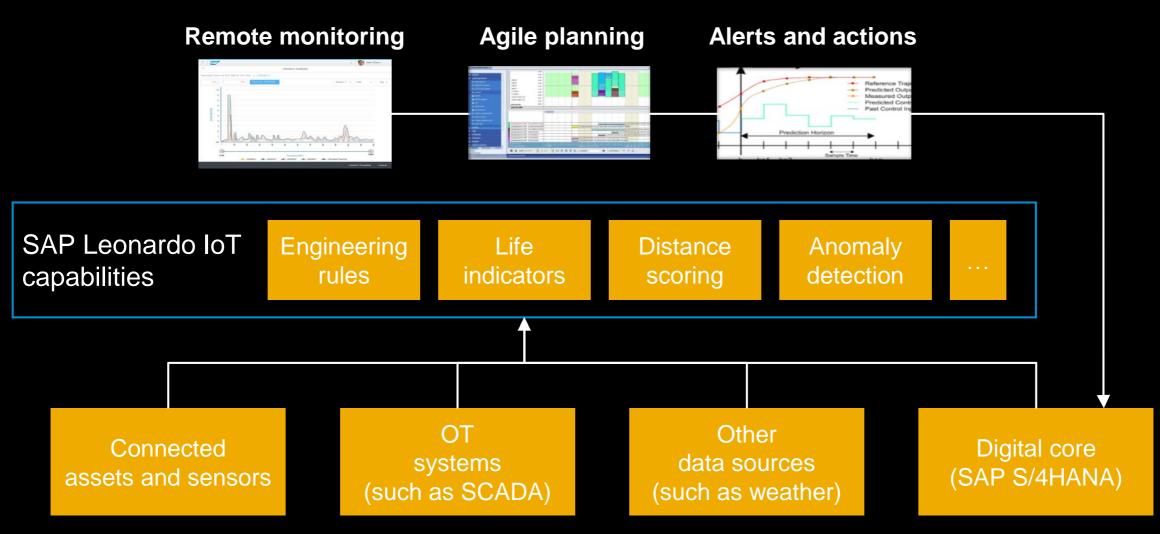




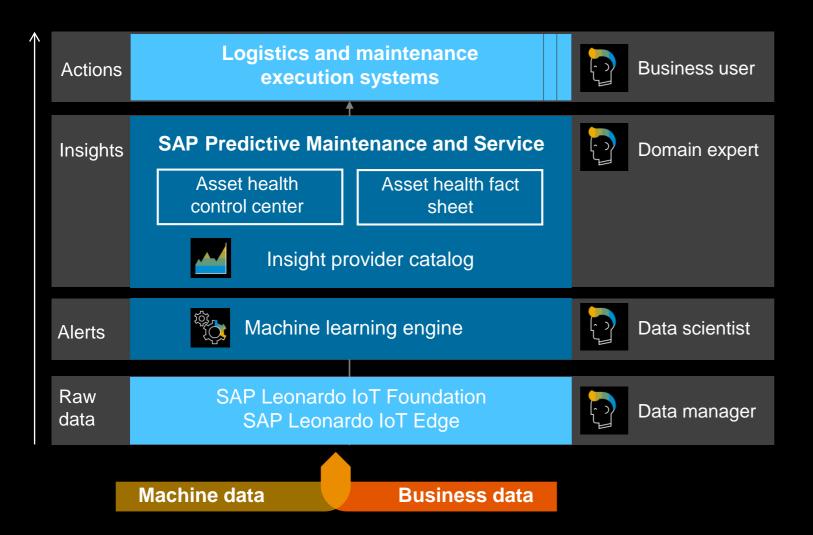




## How can information systems help?

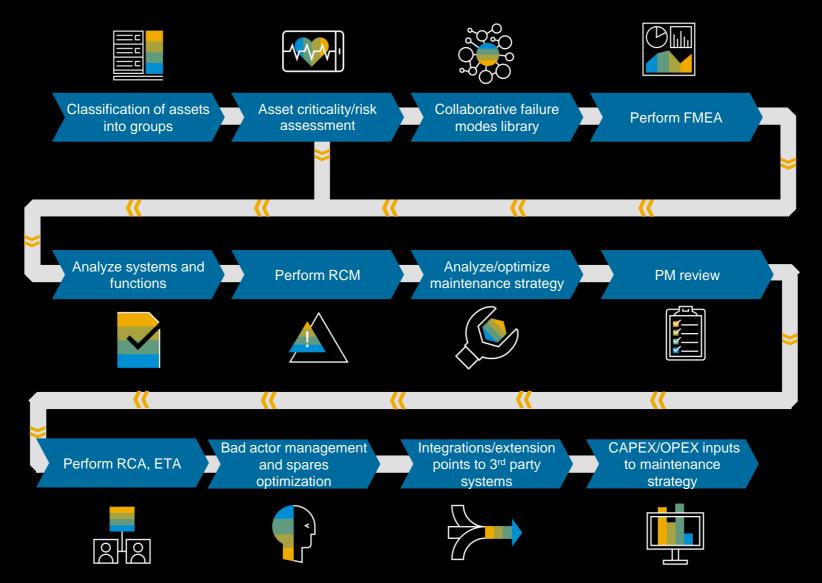


### **SAP Predictive Maintenance and Service solution**



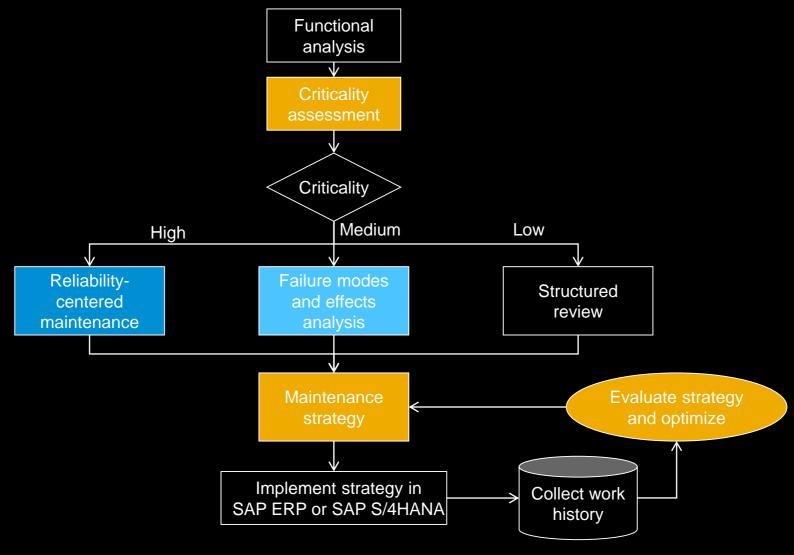
- Available through cloud or on premise
- Flexible extension concept to build industry- or customer-specific models and analytics
- A scalable machine learning engine that drives data science insights into our business processes
- Flexible visualizations across equipment structures
- End-to-end process integration ...alert, discover, remedy

## SAP Asset Strategy and Performance Management application (planned)



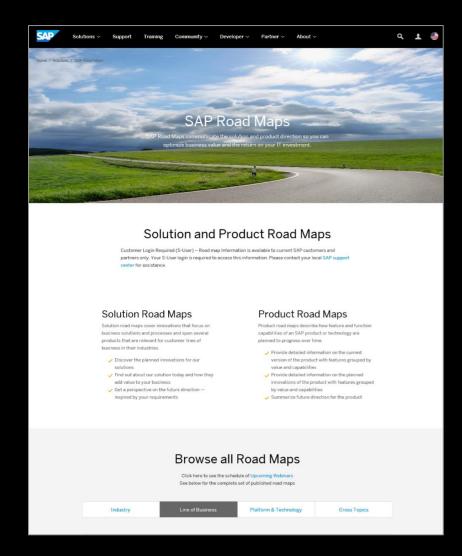
## **SAP Asset Strategy and Performance Management (planned)**

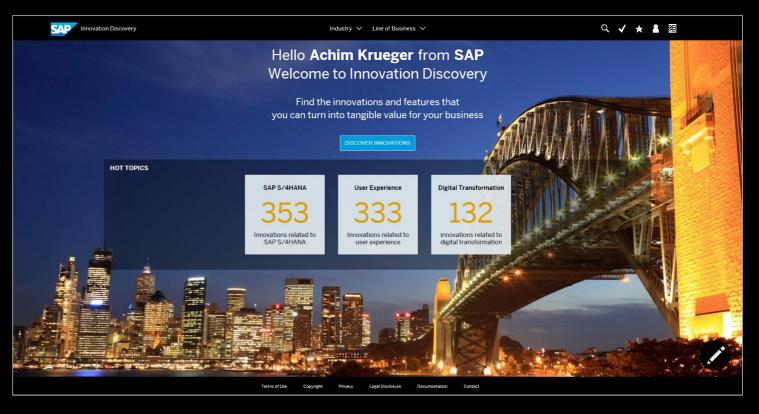
Developing a maintenance strategy



## Line-of-business asset management solutions from SAP

Where to find more information about our road map and innovation





SAP road maps:

http://www.sap.com/roadmaps

Value maps:

http://www.sap.com/solutionexplorer

Innovation discovery:

http://sapsupport.info/support-innovations/innovation-discovery/

# Thank you.

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#### More information:

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