

# Intelligent S/4HANA Automating Finance with SAP Leonardo Machine Learning

Kevin Lee, Director, Product Management, Digital Core ML February 2019 | CUSTOMER



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## What happens when we make a car "intelligent"?

**Traditional** 

**Electric** 

**Autonomous** 







Tomorrow vehicles will still get us from point A to point B...

What happens when we make a car 'intelligent'...?

What does the car know about its own environment?

What does a car need to do its job?

How does the car respond to changes around it?

## What happens when we make a car 'intelligent'...?

## **Today**

## Visibility

- Mirrors and horns
- Dials for miles, MPH, fuel and fluid levels, temperature, etc.

#### **Focus**

- Combustion engine: 2K moving parts
- Steering wheel, dashboard, gearshift
- Driving occupies avg. 45 min per day

### **Agility**

- 2.0 sec to react, press brakes
- Traffic jams, accidents, weather
- Parked 95% of the time

## What happens when we make a car 'intelligent'...?

## **Today**

#### **Tomorrow**

## Visibility

- Mirrors and horns
- Dials for miles, MPH, fuel and fluid levels, temperature, etc.
- Cameras, radar/lidar, GPS, M2M
- Sensors record where/when/how you drive (~2TBs of data daily)

#### **Focus**

- Combustion engine: 2K moving parts
- Steering wheel, dashboard, gearshift
- Driving occupies avg. 45 min per day

- Electric engine: 18 moving parts
- Space for bed, TV, exercise, etc.
- Time for productive tasks

### **Agility**

- 2.0 sec to react, press brakes
- Traffic jams, accidents, weather
- Parked 95% of the time

- 0.3 secs to compute, apply breaks
- Swarm optimization and safety
- Shared ownership; no more garages

## **SAP Strategy – Deliver the Intelligent Enterprise**

THE INTELLIGENT
ENTERPRISE features 3

**KEY COMPONENTS:** 

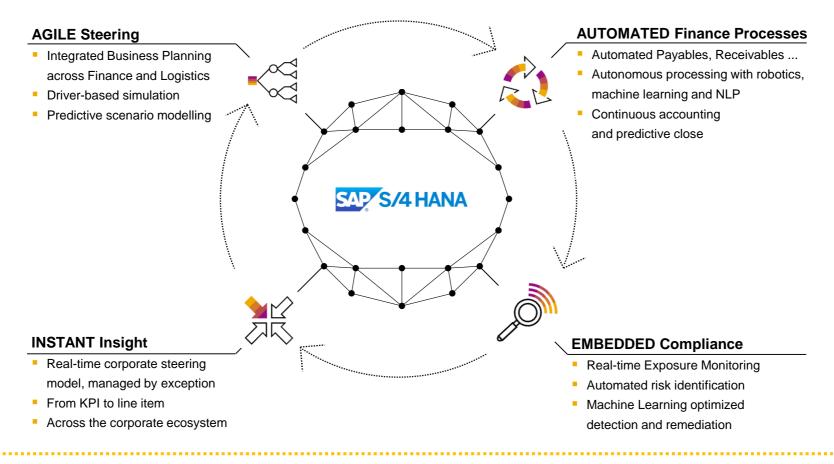
Digital People Manufacturing Core & Supply Chain Engagement Network & Spend Customer Experience Management Intelligent Enterprise Suite Intelligent Technologies AI/ML | IoT | Analytics 01011 11010 10 01101 Digital Platform **Platform** Management

1 Intelligent Enterprise Suite

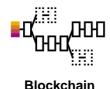
2 Intelligent Technologies

3 Digital Platform

## The Intelligent Enterprise Suite



**SAP Leonardo** 







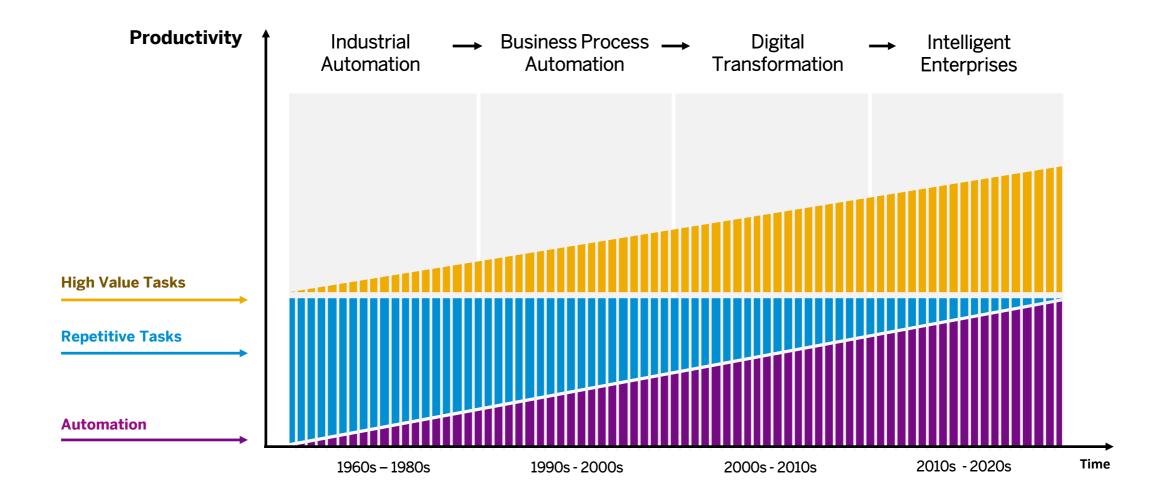
**RPA** 



Machine Learning

**Digital Assistants** 

## Intelligent enterprises elevate employees to focus on Higher-Value Tasks



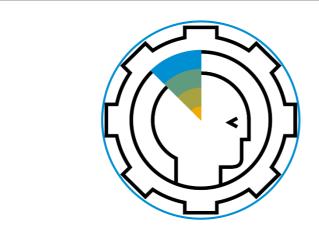
## **Comparing approaches**

Machine Learning helps where static rules do not suffice anymore



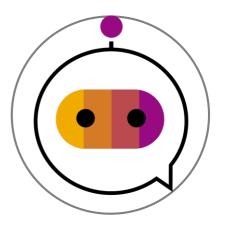
Rule engines

Engines pre-loaded with highly specific process knowledge enable rule-based automation



**Machine learning** 

Machine Learning identifies hidden patterns in knowledge intensive processes and learns from the data without being explicitly programmed

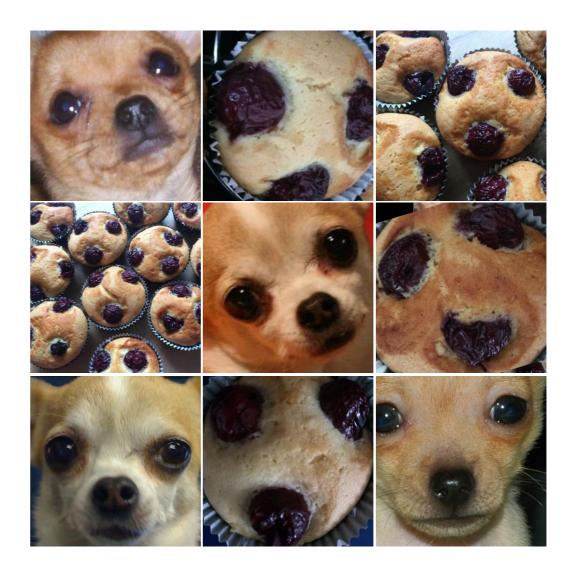


Robotic process automation

Robotics Process Automation helps to run repetitive, **rule-based** Ulfocused tasks and bridges temporary gaps

## What is Machine Learning?

## Chihuahua or Muffin?

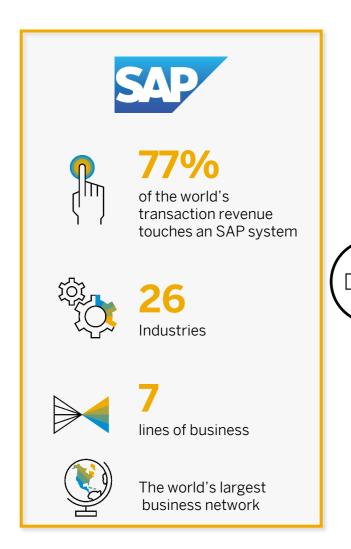


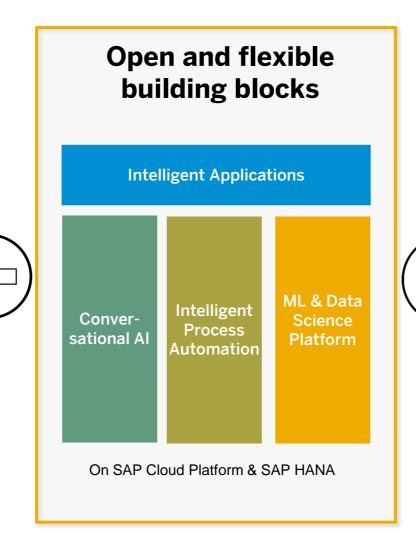
## What is Machine Learning?

# Sheepdog or Mop?



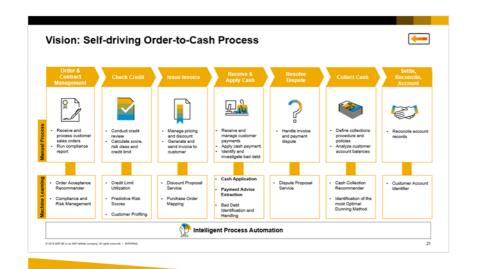
## How SAP Leonardo ML helps to deliver the Intelligent Enterprise



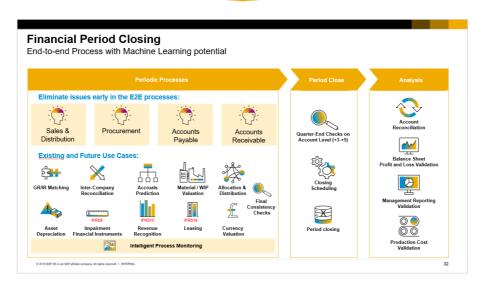




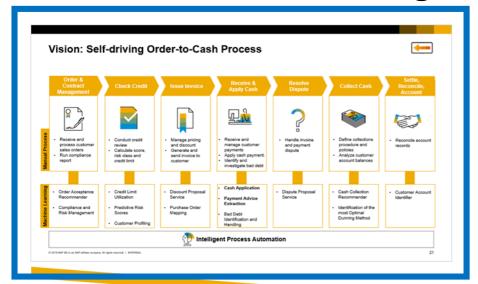
## S/4 Finance Vision: Self-driving E2E Processes for O2C, P2P and Closing

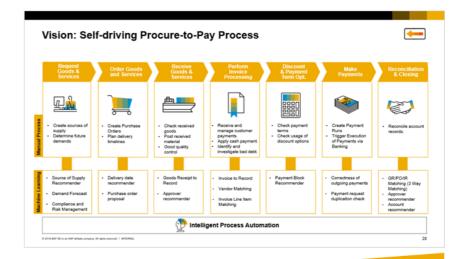


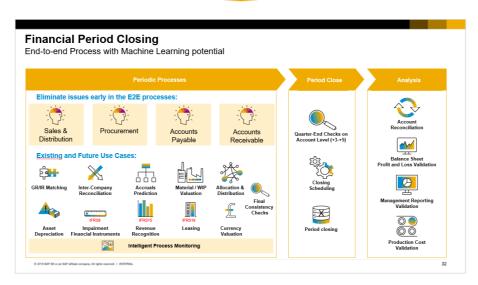




## S/4 Finance Vision: Self-driving E2E Processes for O2C, P2P and Closing







## **Vision: Self-driving Order-to-Cash Process**

## Order & Contract Management



- Receive and process customer sales orders
- Run compliance report

#### **Check Credit**



- Conduct credit review
- Calculate score, risk class and credit limit

#### **Issue Invoice**



- Manage pricing and discount
- Generate and send invoice to customer

## Receive & Apply Cash



- Receive and manage customer payments
- Apply cash payment.
- Identify and investigate bad debt

## Resolve Dispute



 Handle invoice and payment dispute

#### **Collect Cash**



- Define collections procedure and policies
- Analyze customer account balances
- Reconcile account records

Settle,

Reconcile,

Account

# Machine Learning

Manual Process

- Order Acceptance
  Recommender
- Compliance and Risk Management
- Credit Limit Utilization
- Predictive Risk Scores
- Customer Profiling

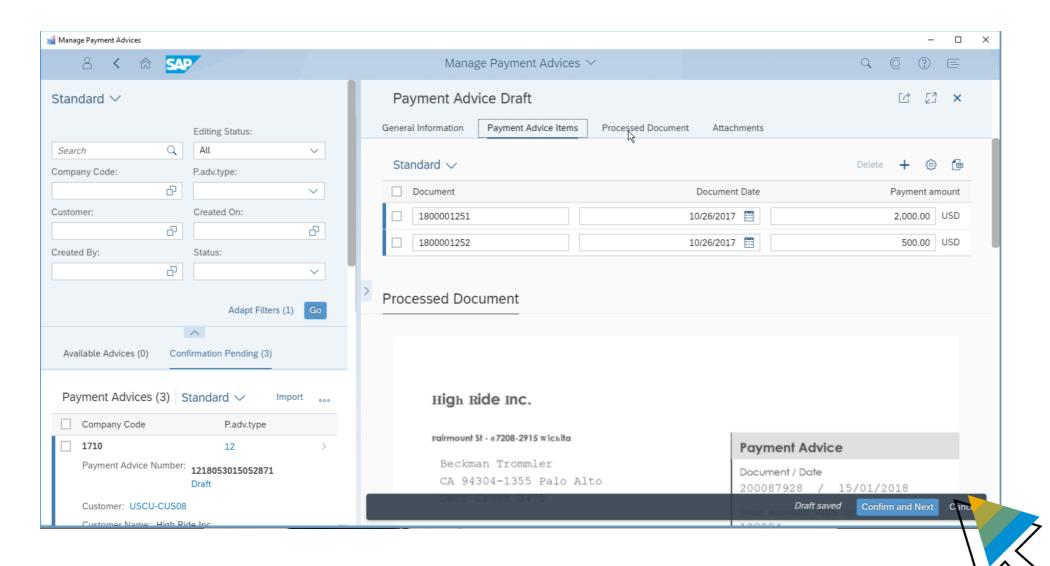
- Discount Proposal Service
- Purchase Order Mapping
- **Cash Application**
- Payment Advice Extraction
- Bad Debt Identification and Handling
- Dispute Proposal Service
- Cash Collection Recommender
- Identification of the most Optimal Dunning Method
- Customer Account Identifier



#### **Intelligent Process Automation**

## **Example: SAP Cash Application (Payment Advice Extraction)**

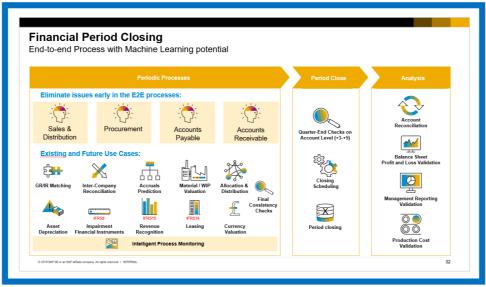




## S/4 Finance Vision: Self-driving E2E Processes for O2C, P2P and Closing

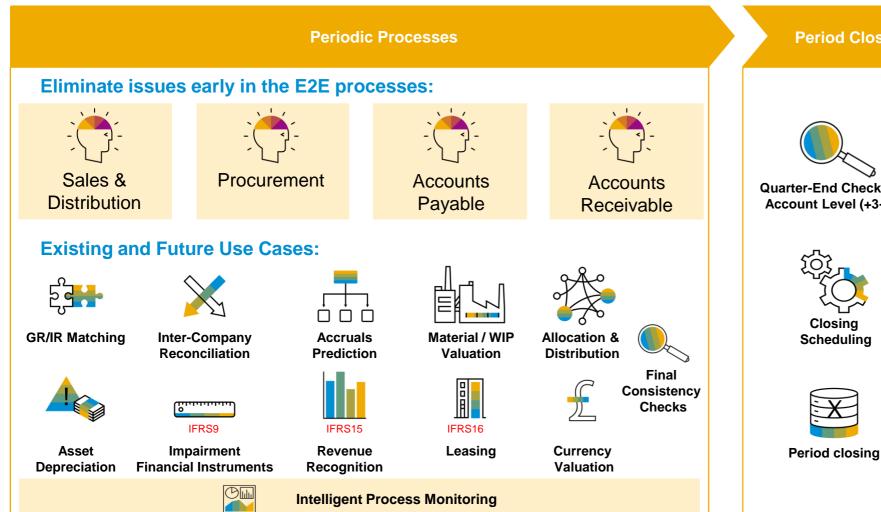




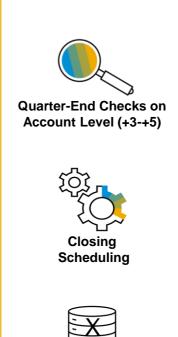


## **Financial Period Closing**

End-to-end Process with Machine Learning potential



#### **Period Close**



#### Analysis





**Balance Sheet Profit and Loss Validation** 



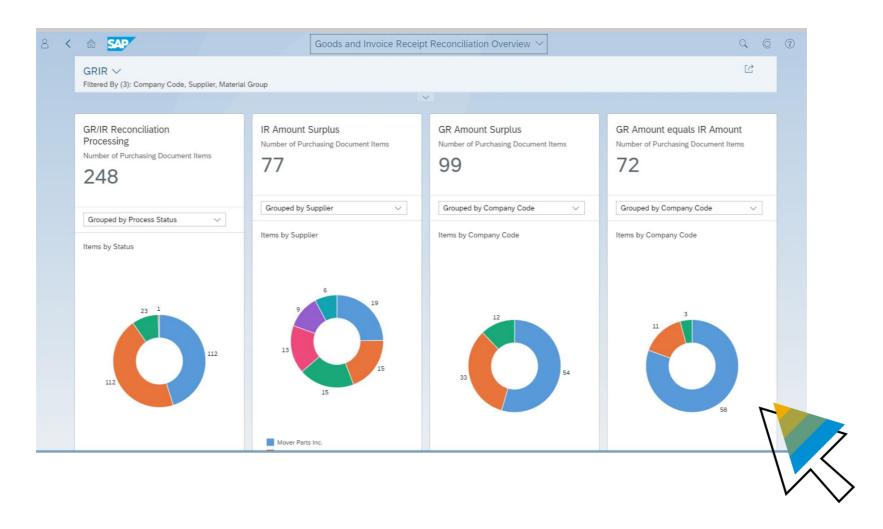
**Management Reporting Validation** 



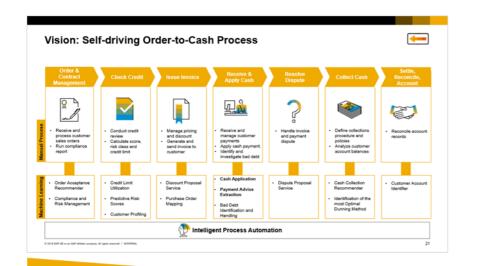
**Production Cost** Validation

### **Backoffice Automation with**

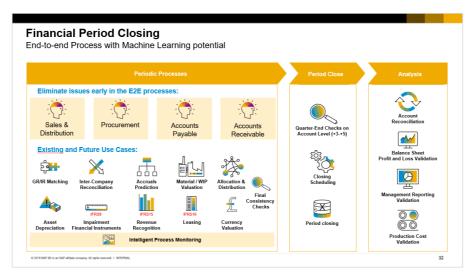
## **Goods Receipt / Invoice Receipt Reconciliation**



## S/4 Finance Vision: Self-driving E2E Processes for O2C, P2P and Closing



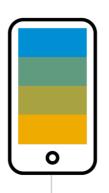




## **SAP Leonardo** intelligent applications for SAP S/4HANA

SAP Co-Pilot

**SAP Co-Pilot** 



One digital assistant with one personality across all products and solutions, industries and LoBs



## **Business Context Awareness**

Understanding the business context, and pro-actively suggesting solutions using predictive functionality



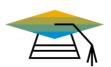
## Conversational (multi-modal) UI

Conversational UI using
Natural Language
Processing functionality
with a focus on the
next-gen UX to create a
human-like experience



#### **Cross Applications**

Allows seamless transition across platforms; start a task on a mobile device and continue later, on a desktop or vice versa



#### **Self Learning**

Using machine learning functionality to gain knowledge based on historic data, experience, and take action in response to new or unforeseen events

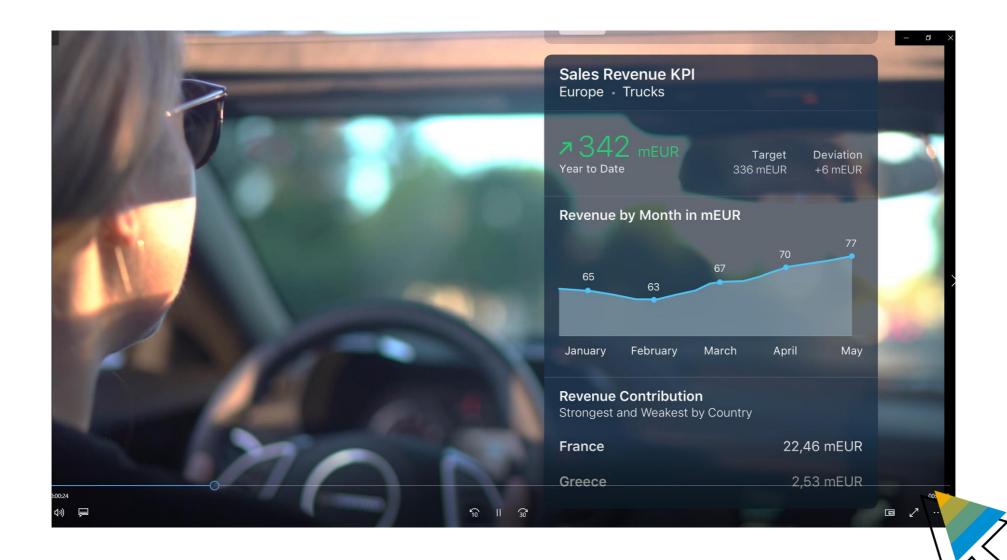


#### Simple Access to Enterprise Al Platform

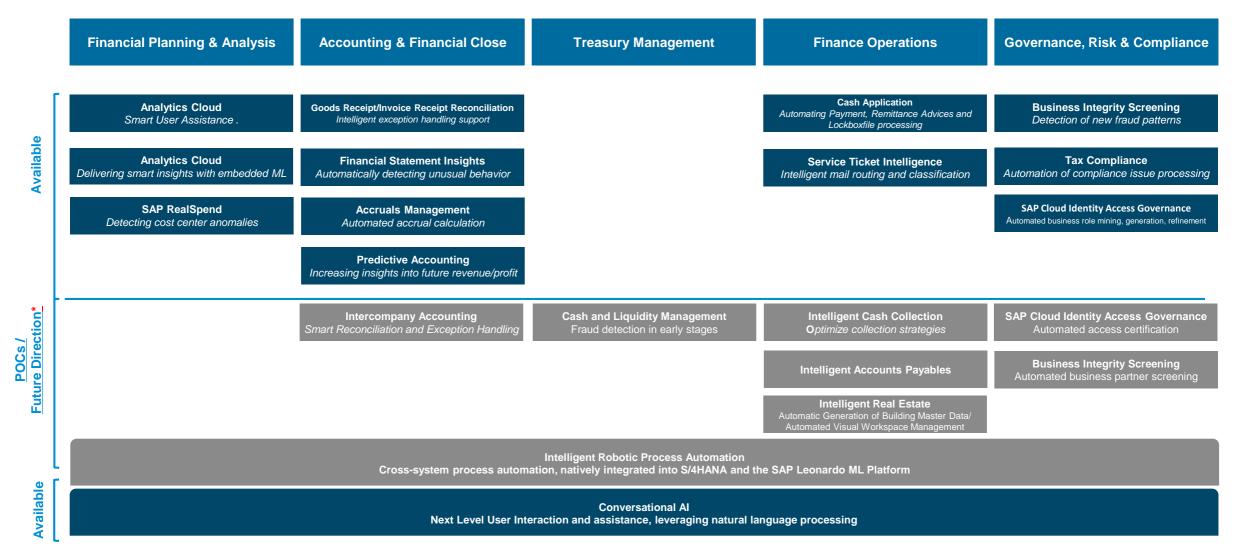
Integration to SAP and non-SAP solutions; simple access to natural language processing and machine learning functionality via APIs

## **Example: SAP CoPilot**

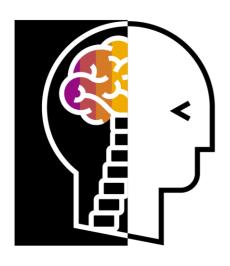




## **Intelligent Finance & Risk solutions**



## **Summary**



- The Intelligent Enterprise leverages emerging technologies such as AI/ML, IoT, and Analytics to enable the workforce to focus on higher value outcomes.
- The Finance space is at the core of the Intelligent Enterprise strategy with a large number of intelligent finance cases, being already available today.
- We have a clear focus to generate value for our customers along the E2E processes.
- Further use cases will emerge in the near future.

## Thank you.



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