

Artificial Intelligence / Machine learning that empower the business users in Project Based Services/Internal Projects

Stefan Goebel, SAP Bert Laws, SAP May 9th, 2019 PUBLIC



Agenda

Overview of AI Technologies

Overview from different technologies for Artificial Intelligence built into SAP S/4HANA and S/4HANA Cloud

Al Use Cases in Professional Services Industry

Deep Dive into features available (Upto 1902) use cases

Future Roadmap & Use cases

Use cases enabled with Machine learning/Artificial Intelligence innovations Agenda item/divider headline

Customer Adoption

Customer Stories for their Intelligent Enterprise Journey

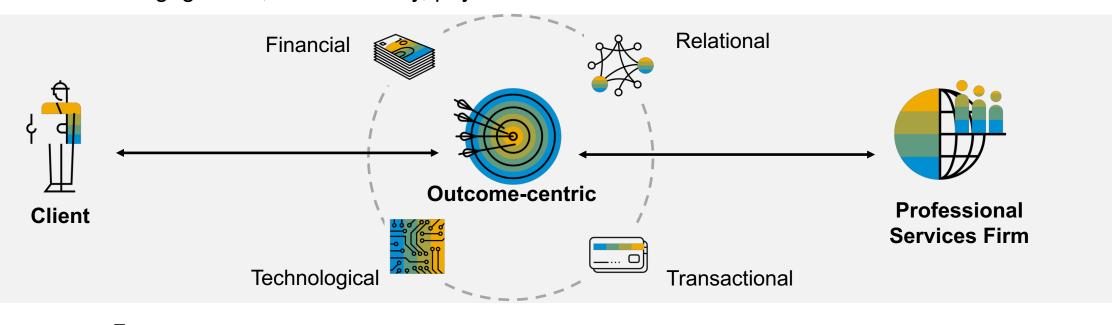
Q&A

Overview of Al Technologies



Changing business models are transforming professional services

Customers of professional services are looking for new ways to interact with their professional services providers. Specifically, they are looking for: more **flexibility** including new digitally delivered services, **subscription** and on-demand consumption models, the utilization of **global talent networks** for the right resources on each engagement, and ultimately, payment **based on outcomes** instead of time & materials.



From		To
Face-to-face	•••••	Digital
Local	·····>	Global
Employees	·····>	Employees, contingents, robots (total workforce)
Long-term lock-in	······>	Short-term flexibility

Enabling better customer experiences in Professional Services

Example: Quote to Cash with Knowledge as a Service

Key capabilities required

Configure, price, quote



- Easy-to-use user experience with configuration intelligence for fast and accurate quotes
- Digital services catalog
- Support for multiple engagement models in a single order

Offerings, subscriptions,

and use-based

engagement models

provide flexibility

Service delivery



- Single view of all related services
- Visibility into revenue and margin performance
- Intelligent resource management

Recurring digital services



- Support for subscription, usage, and outcomebased models
- · Digital expertise
- IP services

Revenue recognition



- Fixed-price, subscription, and usage-based engagement revenue recognition methods
- Real-time and reconciliation-free processes and reporting

Billing and invoicing



- One invoice
- Automated, intelligent, incoming cash matching

S/4HANA innovations

SAP S/4HANA Customers Achieve

95% faster quote-toorder process Granular end-to-end analytics provide detailed visibility into contract performance Anytime soft closes allow for real-time profitability analysis

Real-time postings to recognize revenue and support different revenue-recognition methods

Automatic merging of different billing types into a single invoice **simplifies client and firm processes**

10% Increase in project manager productivity

0.5% Increase in profitability

40%-50% Decrease in general ledger and financial closing costs

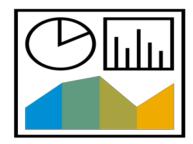
46% Fewer customer complaints with real-time order, billing, and invoicing

6

Intelligent Enterprise for Professional Services

Embedded Intelligence

Proactive analysis of data to provide insights driven by machine learning to augment and enhance business processes and decision management



40%

Increase in business productivity as a result of utilising AI

Next–generation UX

User experience based on voice, vision and messaging will replicate how people interact in real life and increase business productivity



95.1%

Speech recognition accuracy today (better than human rate 94.1%)

Process Automation

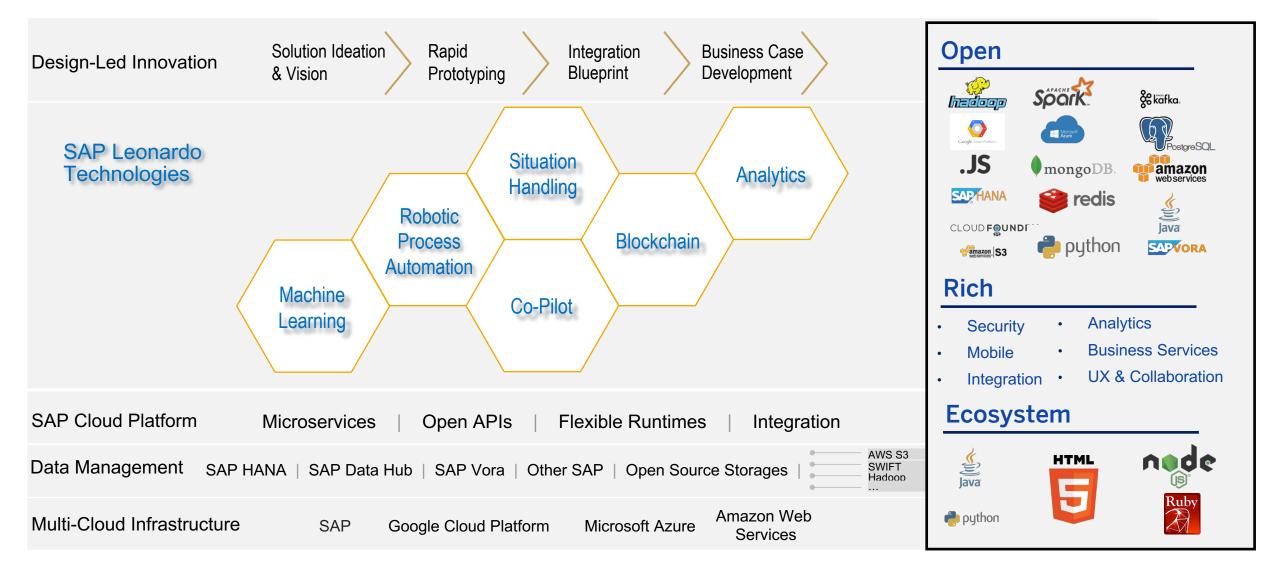
Automation of key business processes improving efficiencies, removing the mundane and intelligent trigger of events and notifications



60%

Of human tasks will be automated by 2025

SAP Digital innovation system



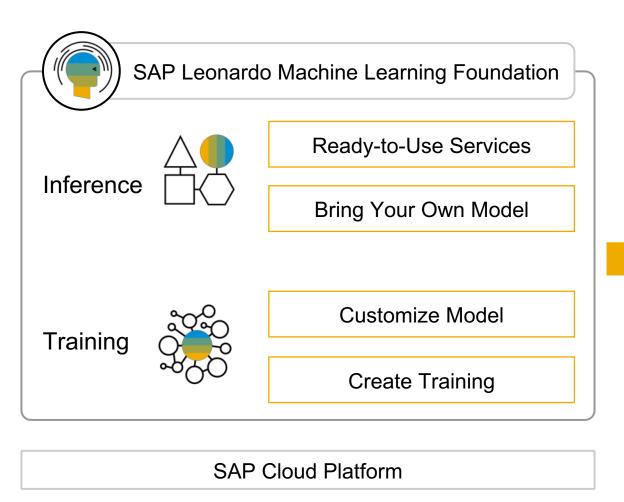
Machine Learning Architecture

How enterprise data is transformed into business value

Training Inference Data Train **Applications** model (such as cash application) Video Text Prepare **Apply** data model Speech Image 🗪 .and more ... and more Services Capture (such as invoice processing, feedback profile matching)

Machine Learning Architecture

SAP Leonardo Machine Learning Foundation





Ready to Use

SAP Cash ApplicationSAP Brand Impact

Applications

SAP Service Ticketing

SAP Fraud Management

Machine Learning

SAP Customer Retention

Conversational UI

- Conversation AI Framework
- SAP CoPilot

Services

- Document Feature Extraction
- Image Feature Extraction
- Time Series Change Point Detection
- Time Series Forecast Translation
- Image Classification

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

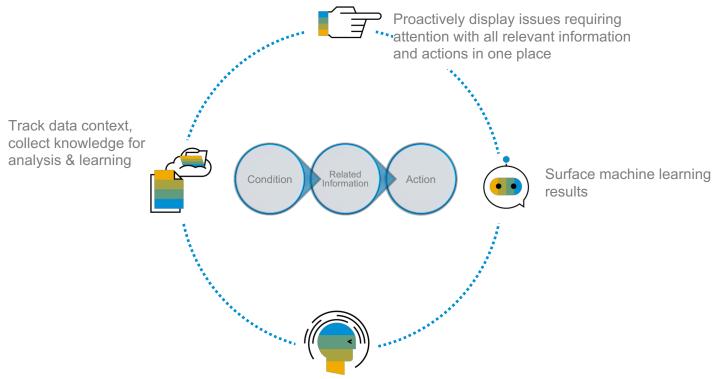
Using machine learning functionality to gain knowledge based on historic data, experience, and take action in response to new or unforeseen events



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

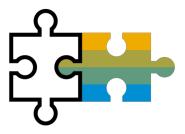
Situation Handling for Insight Driven Business



Track situation status & actions, use feedback to improve machine learning models and algorithms

Where machine learning is used to calculate predictions or recognize patterns, the use case can often be enhanced by Situation Handling to surface the results and propose actions.

Capabilities of SAP Intelligent Robotic Process Automation



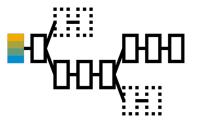
Integration for the intelligent suite designing and deploying robots across systems and deployments



API Leverage making bots robust

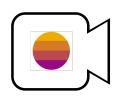


Out-of-the-Box Automation with prebuilt bots for SAP products



Reinvented Processes with deeper insights

SAP Intelligent Robotic Process Automation



Record

Capture the process flow and skills to train bots



Build

Assemble bots. add skills, APIs, services, triggers



Run

Al-enabled bots in action, mimic the user, repeat



Monitor

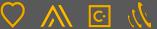
Health check, expedite



SAP S/4HANA SAP C/4HANA







Chatbots, ML services

Third-party applications

Non-SAP systems

Tools eg. Excel, PowerPoint

Leonardo Intelligent Technologies

Towards a unified ML & Data Science Platform

Components



SAP Data Hub

Data sharing, pipelining, and orchestration. Including data preparation and cleaning.



SAP Predictive Analytics

Operationalization and automation



SAP Leonardo ML Foundation

Deep Learning (text, image, video, audio)



Solution

One integrated offering

One data science front end

Full lifecycle management

Integrated with SAP

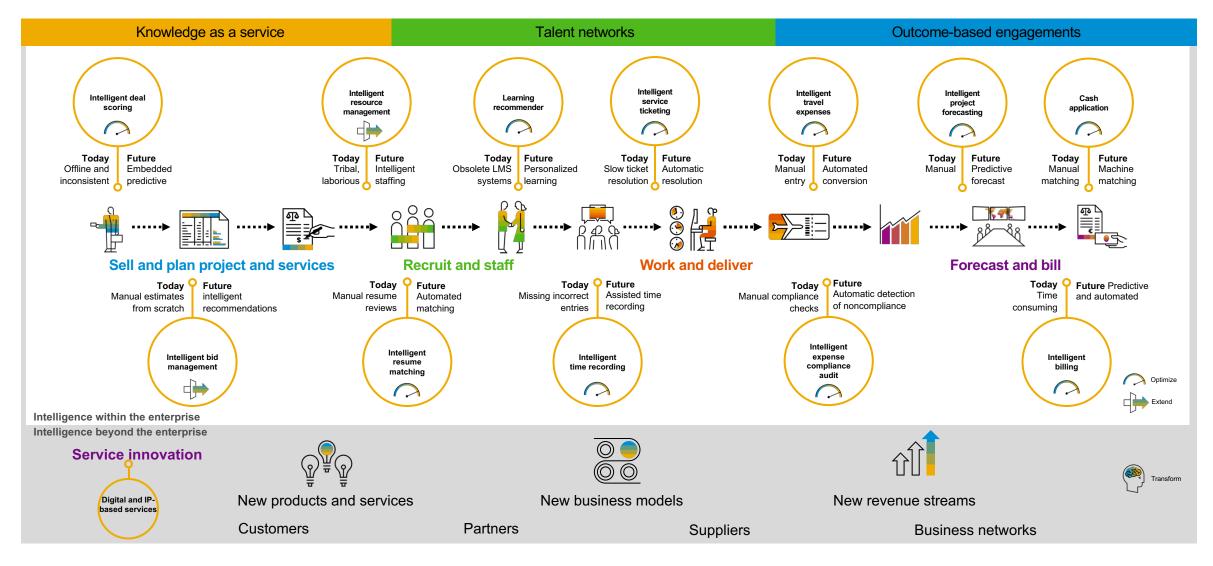
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Al Use Cases in Professional Services Industry

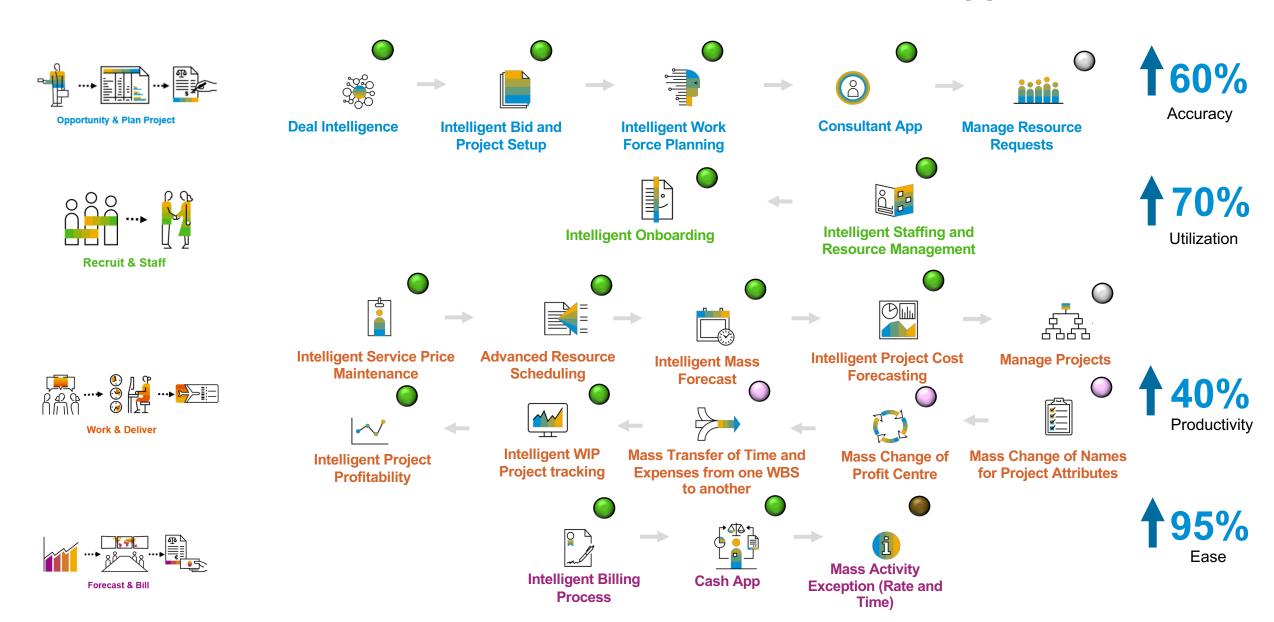


The Intelligent Enterprise for the professional services industry

E2E industry value chain with intelligent industry scenarios embedded



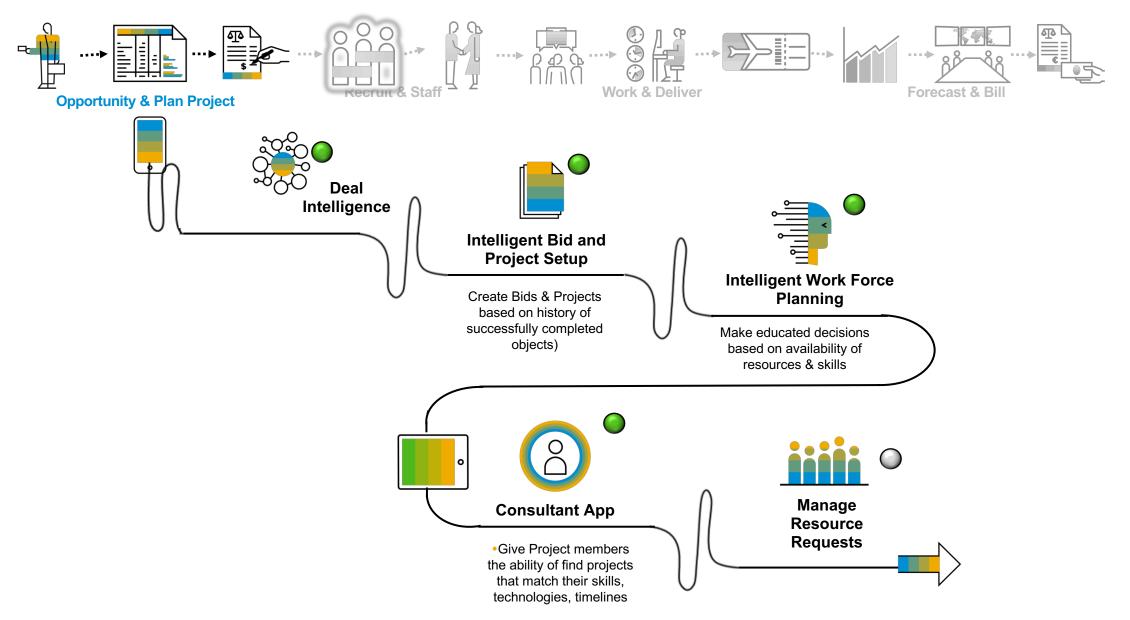
Professional Services Innovation Usecases: End to End Approach







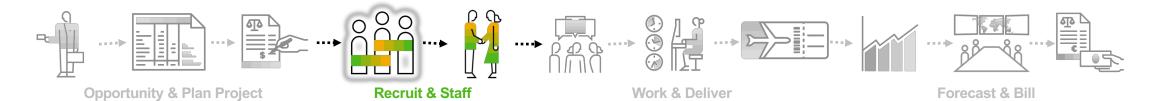
Opportunity & Plan Project - Professional Services

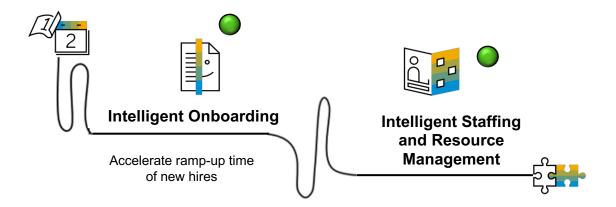






Recruit & Staff: Professional Services



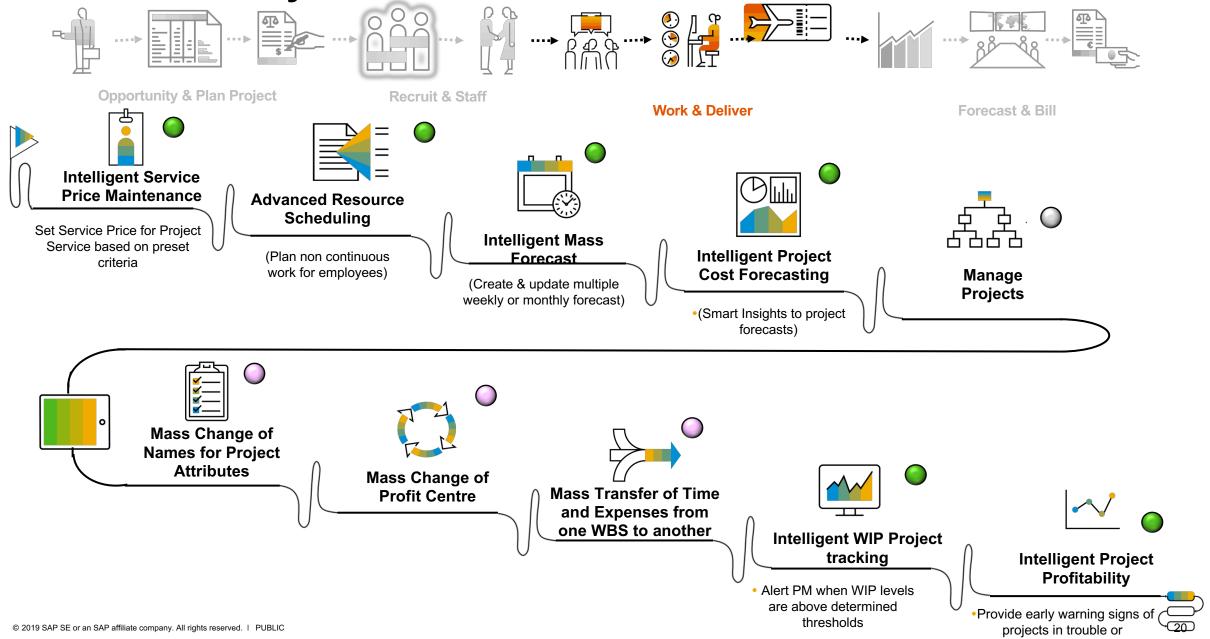






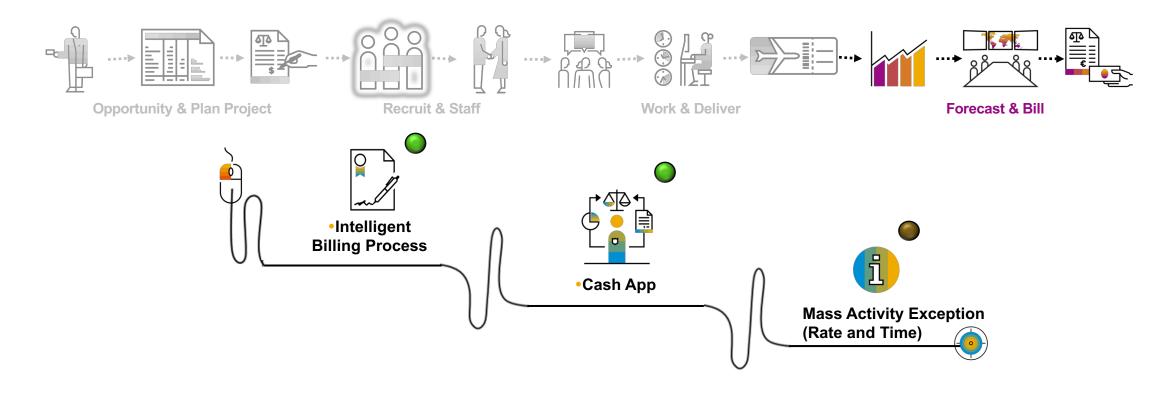


Work & Delivery : Professional Services



underperforming

Forecast & Bill: Professional Services





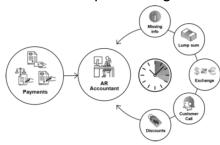




Imagine: Streamlined Account Receivable Process

Prior System

- Manual processing of payments
- Error-prone invoice matching process
- Costly rule-based AR processing





Intelligent System

- Automate payment clearing processing
- Eliminate complex rules set up
- Saves cost and resources
- Do more with less accountants

SAP S/4HANA Solution

- Automatic payment clearing
- Intelligent handling of missing payment info
- Process structured and unstructured advice

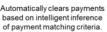














Benefits (customer: SAP)

- 15% decrease in processing time for invoices
- 50% savings manual effort on payment matching.
- 10% reduction in days sales outstanding
- 25% reduction in A/R costs

Companies who improved account receivable process:







Discover your value: http://impact.s4value.com



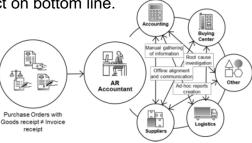


Imagine: Accelerated GR/IR Reconciliation

Prior System

- Manual, ad-hoc coordination cycles
- **Delayed Financial Close**
- Reduced accuracy of cost and inventory valuation

Negative impact on bottom line.





Intelligent System

- Centralized insights on all problematic POs for fast resolution
- Intelligent clearing recommendations
- Simplified collaboration

SAP S/4HANA Solution

- Real-time, centralized GR/IR monitor
- Intelligent recommendations on next PO clearing steps
- Embedded collaboration







best action for Purchase





to take to clear off problematic Purchase Orders.



- Improved compliance
- Faster period-end closing
- Increased revenue
- Streamline collaboration and decision-making

Companies who reduced their book close time:

Discover your value: http://impact.s4value.com

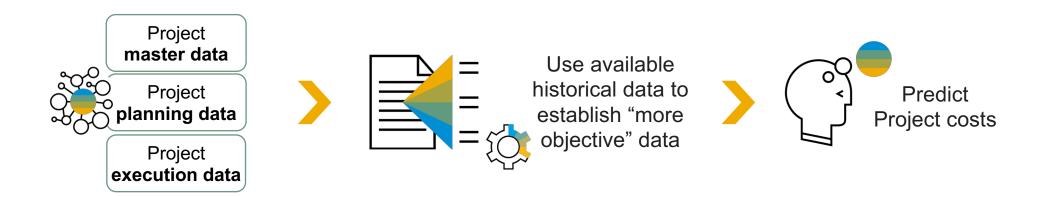








Project Cost Forecasting Predict Project Costs



Measure your project cost forecast against cost predictions and avoid budget overruns



Improve project cost forecast accuracy



Increase Customer satisfaction (as the company is recognized as reliable)



Save costs with less budget overruns

Manage Resource Requests – with Co-Pilot

Persona – Resource Manager

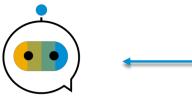














Key in or command Co-Pilot to fetch information

Analyze commands and map search terms to relevant app

Filter information and present to the user

Use NLI to update or display resource request or directly change or update resources for a specific project.



Increase User
Efficiency on identifying requests and assigning resources to projects



Reduce Resource Manager Effort

on identifying requests and assigning resources to projects



Say or Enter command filters to zero in on specific projects, requests or type of resources

Customer Adoption



SAP

Save cost and time with intelligent automation of receivables management

Market challenges:

- Shared services organizations have shortage of qualified talents.
- Low employee retention rates due to boring and unsatisfying jobs.
- Harder to deliver effective enterprise compliance.

Objective:

- Generate cost savings, while ensuring quality and customer satisfaction.
- Ensure scalability for future growth without additional headcount.
- Re-focus finance teams to become strategic partners to the business.

Solution:

- SAP Cash Application automatically applies payments to invoices.
- Intelligently learns matching criteria from payment history.
- Reads and processes structured and unstructured payment documents.
- Automatically clears payments with minimal human intervention.

Benefits:

- Save cost and time by automating invoice matching process.
- Elevate finance teams roles to more strategic tasks.
- Grow business with same amount of shared services resources.

Improve

Days Sales Outstanding by clearing payments faster

Scale

shared services capabilties to growing business needs

Reduce

manual effort, focus on more strategic tasks

90% +

automation of invoice to payment matching possible



What industry leaders are doing today

Deloitte

Industry

Professional Services

Employees 286,200

Region EMEA, UK

Deloitte.

Challenges

Deloitte, a world-renowned leader in professional services, needed to make real-time decisions around resourcing and deliverables, but information wasn't always available to practitioners in the group. There was a requirement to group projects together to see performance and profitability across a series of client engagement. And, consultants needed visibility throughout the process of creating and maintaining clients, projects, and engagements to accurately report to management on a timely basis.

SAP S/4HANA Innovations

With more than 20-years of experience with SAP, Deloitte knew it was time to move off their legacy ERP system to ensure they could keep their competitive edge and continue innovating. To become the undisputed leader in professional services by 2020, they need to be viewed as an innovative, cutting-edge global firm. With SAP S/4HANA as their digital core, Deloitte is transforming internal processes which allows them to offer premium client-facing services.

Benefits

Deloitte now has integrated and streamlined financial processes and increased visibility and transparency allowing for:

- Improved accounting standards and revenue recognition
- Visible performance and profitability metrics to share with clients
- Authentic experience when seeking to sell clients on the value of digital transformation
- 7.1% performance growth in 2017
- Over 200,000 users benefiting from real-time insights
- Real-time insights around resourcing and deliverables
- · Help end customers imagine and develop new services or products to



"We have a vision to be the undisputed leader in professional services by 2020. That is one of the reasons we adopted SAP S/4HANA. We need to provide visibility of engagements, financial performance, and how we can improve profitability."

- Paul Bray, Partner, Deloitte

What industry leaders are doing today

Accenture

Industry

Professional Services

Employees 477.000

Region

EMEA, Ireland



Challenges

Accenture, a major global management consulting and professional services firm, needed to position itself as a trailblazer and guide for IT innovation. So, when growth expectations required greater speed, agility, and diversity in its own business models, Accenture realized it needed the same digital platform it recommends to the companies it serves.

SAP S/4HANA Innovations

Accenture chose to implement SAP S/4HANA as their digital core to enable speed and agility and ultimately deliver the best customer experience. With real-time insights and analytics, accurate decisions can be made faster. And by delivering new technology more quickly thanks to a clear platform road map, Accenture has access to more expansive capabilities than could be developed in-house

Benefits

With SAP S/4HANA, Accenture has a central digital platform to support more than 100,000 active business users around the globe. Benefits include:

- Next-generation speed, agility, and capabilities including diverse business models and end-to-end financials
- Cost-effective operations, streamlined acquisitions, and real-time reporting and analytics
- Ensure that technology is an enabler of never a barrier to growth, increased revenue, targeted resource planning, and the ability to attract, mobilize, and retain a massive and hyper-focused workforce



"The partnership with SAP goes way beyond technology. The DNA of our organizations and our evolution as service providers are critically connected. We provide and support hyperscale software as a service. SAP S/4HANA is key to making that possible."

- Andrew Wilson, CIO, Accenture

What industry leaders are doing today

delaware

Industry

Professional Services

Employees

1,300

Region

EMEA, Belgium



Challenges

Since its inception, delaware has grown exponentially and now operates dozens of regional offices across the globe. To keep up with this geographical and employee growth, delaware needed to replace their legacy system. In addition, manual and time-consuming financial processes and administrative follow-up processes were preventing employees from offering the best services to clients.

SAP S/4HANA Innovations

delaware was the first company to implement SAP S/4HANA Cloud to ensure their business was ready to support continued expansion and stay at the forefront of the latest technology innovations. An intelligent ERP in the cloud promises a lower TCO, rapid speed to value, agility to adapt to changes in the market and deploy new business models, and a quarterly release cycle to stay up-to-date with the latest innovations.

Benefits

As the first live customer on SAP S/4HANA Cloud, delaware has:

- · Reduced manual processes, such as reconciling bank statements
- Increased automation of redundant, time-consuming administrative tasks; freeing up employees to engage in more strategic tasks
- Real-time operational insight into project status at any given time for customer reports
- Lower TCO by deploying a SaaS solution with a lack of hardware, maintenance and upgrade costs



"We're quickly expanding into new countries. By deploying SAP S/4HANA, we help ensure that the solution can support us in a fast and agile way and that administrative tasks are supported. We want to build amazing things, and with SAP we can."

- Filip Decostere, Partner, Delaware Consulting

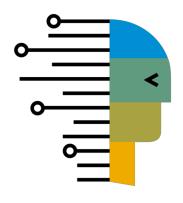
Call to Action



Outlook

Roadmap & Links





Official Web Site

→ For updates and more information, check out our official Website

Education

- Participate in the openSAP course <u>Enterprise Machine Learning in a Nutshell</u> (overview course)
- → Participate in te open SAP course Enterprise Deep Learning with TensorFlow

Roadmap

→ Link to SAP ML Roadmap

Early adoption and co-innovation

→ Contact us to be an early adopter and co-innovate with us for next-wave cases

Customer Engagement Initiative

Contact us to be part of CEI Project - Machine Learning and AI Learning for Professional Services using Intelligent ERP SAP S/4HANA Cloud

Thank You



Stefan Goebel

SAP Labs, LLC

3410 Hillview Ave. Palo Alto, CA 94394 Stefan.goebel@sap.com



Bert Laws

SAP Labs, LLC

3410 Hillview Ave. Palo Alto, CA 94394 Bert.laws@sap.com



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